

A Cross Cultural Analysis of Implicit and Explicit Xenophobia

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April, 2017

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Submitted to the faculty of Cognitive Science in partial fulfillment of the
requirements for the degree of Bachelor of Arts

Abstract

The present research was composed of two distinct studies that examined the effects of cultural beliefs, implicit xenophobia, explicit xenophobia, and the suppression and rebound effects of implicit xenophobia in Indian and American populations. In Study 1, Indian participants revealed greater explicit xenophobia than American participants. In contrast, American and Indian participants both demonstrated comparable levels of xenophobia through the implicit association test. In Study 2, implicit xenophobia was not tested. The focus of Study 2 was to identify trends of individualist versus collectivist ideologies within cultures, the trends of differing explicit attitudes towards immigrants, and the relation of those attitudes to participants' reactions to refined scenarios. Participants were asked to respond to more complex scenarios than were used in Study 1. The main findings of both studies suggest that Americans tend to underreport their xenophobia when explicitly asked about their feelings towards immigrants compared to Indian participants. However, Americans show their bias through in-group favoritism rather than negative out-group bias. The question of whether there are rebound effects of this underreporting remains unanswered based on the results of the present research and is an avenue for future research.

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1. Introduction

1.1 Culture and Cognition

A central question of psychology revolves around the notion of culture. Does culture shape cognition, or is the opposite true—does cognition shape culture (Valsiner, 2009)? Today, the question remains unanswered. However, what is clear is that the two are so deeply connected that, as Jaan Valsiner aptly puts it, “to consider one without the other would be superficial, both towards the depth of social influences, as well as the expanse of individual psyche” (Valsiner, 2009, p. 238). The social differences that result from culture are expansive. Such differences range from superficial and visible behavior like eating with one’s hands versus eating with cutlery, to deeply fundamental social beliefs, such as the importance of individuality over community. The commonality between the two differences is that both are thought to be shaped by culture. Culture’s influences are inescapable and therefore the question remains—do “culture-free aspects of cognition, emotion, or motivation” (Markus and Kitayama, 1991) exist? The goal of the present research is to investigate and better understand how culture shapes our beliefs and attitudes towards others on the implicit and explicit level and the subsequent consequences of these beliefs.

Central components to the present research are two different cultural ideologies—collectivism and individualism. A collectivist culture is one that values “harmonious interdependence” (Markus & Kitayama, 1991). Constituents of collectivist cultures tend to value collaboration and devalue self-sufficiency.

Conversely, an individualist culture is one comprised of “individuals [who] seek to maintain their independence from others by attending to the self and by discovering and expressing their unique inner attributes” (Markus & Kitayama, 1991, p. 224) Constituents of individualist cultures tend to value individuality and devalue interdependence. Vast anthropological and psychological research has shown that Eastern cultures, such as India, can be characterized as collectivist cultures, while Western cultures, such as America, can be characterized as individualist cultures. Unsurprisingly, collectivist and individualist ideologies produce diverging conceptions of “the self”—the way people understand and place themselves within the rest of society.

The two competing conceptions of the self that collectivist and individualist ideologies produce are the “interdependent construal” and “independent construal”, respectively (Markus & Kitayama, 1991). As Markus and Kitayama describe, the Western independent construal of the self is fostered by a desire to separate oneself from others and to consider oneself unique. Conversely, the interdependent construal is fostered by a belief in “fundamental connectedness of human beings to each other” (Markus & Kitayama, 1991, p. 224). Different cultural values—the collectivism of the East and individualism of the West—shape human cognition. The goal of the present research is to examine the differences between Indian and American culture, representing collectivist and individualist cultures respectively, and their effects on implicit and explicit cognition.

1.2 Culture and Xenophobia

Social comparison is intrinsic to human cognition (Garcia, Stephen, Tor, Avishalom, Schiff, & Tyrone, 2013). Through social comparison, people evaluate themselves, evaluate others, foster group identities and subsequently differentiate between their in-group and out-group members (Garcia et al. 2013). Researchers have worked to better understand social comparison and the types of factors—individual and situational—that engender it (Suls, Martin, & Wheeler, 2002).

The aim of this study is to better understand how a person's negative attitudes and beliefs towards people of different cultures—commonly known as xenophobia—relate to that person's culture. Xenophobia “refers to a fear of the stranger” (Sanchez-Mazas, 2015) and in a cultural context is understood as a fear of foreigners (Mariam Webster Online Dictionary). It is thought to be a byproduct of humans' motivation to protect our social identity (Sanchez-Mazas, 2015). Xenophobia, like racism and all other prejudices that are intergroup biases, serves as “mechanisms through which positive distinctness and positive social identities are achieved” (Sanchez-Mazas, 2015). Consciously, people work to individualize and align themselves with others, thus creating an in-group and out-group. However, this process also happens on the subconscious level, as people are always, even when not deliberately intending to, working to foster and protect a positive conception of the self (Sanchez-Mazas, 2015). Therefore, a person's attitudes towards and beliefs about others is a product of his or her cognition—system 1 and system 2. Different cultural values put different levels of influence on the existence of an in-group and out-group. For example, American culture puts less emphasis on

the distinction between in-group and out-group members than does Indian culture (Vargas, Jose, & Kemmelmeier, 2013; Shah & Rajadhyaksha, 2016)

1.3 System 1 and System 2

Certainly, culture shapes our overt beliefs, otherwise known as our “system 2” beliefs. However, based on the dual-process theory, human cognition operates at two levels—there also exists a system 1 that is susceptible to cultural influence. System 1 is cognition that is “unconscious, implicit, automatic, low effort, and is our default processing” (Evans, 2008). Conversely, system 2 processing, mentioned above, is characterized as “controlled, rational, systematic, explicit, slow, and analytic” (Evans, 2008). Therefore, a complete understanding of how these two competing cultural principles—individualism and collectivism—shape cognition requires an analysis of its effects on *both* system 1 and system 2.

Though there has been some past research on cross-cultural comparisons of xenophobia across Eastern and Western cultures, it is sparse. Furthermore, such research has only focused on explicit beliefs. In other words, there is little research on the relationship between the effects that Western individualism and Eastern collectivism has on the prominence and strength of xenophobia within those populations.

Recent studies have shown that people of Eastern cultures—those characterized by collectivist values—tend to express higher levels of explicit xenophobia compared to people of individualistic, Western cultures (Shin & Dovidio, 2013). For example, in a study conducted by Shin and Dovidio, participants were asked whether they would like to have a person of a different ethnic

background—race, ethnicity, nationality—as a neighbor. More people of East Asian cultures reported that they would prefer to have a neighbor of the same ethnic background than those people of North American culture. However, these findings do not fully explain the effects of culture on xenophobic beliefs because the study only addresses overt, system 2 beliefs. One of the primary aims of the present study is to fill the gap in the current understanding of the influences of Eastern and Western cultural values on xenophobia by analyzing and comparing both explicit and implicit beliefs.

Though fewer individuals from Northern Europe and North America reported that they would not prefer a neighbor of the same nationality over one of a different nationality compared to those of East Asian countries, that does not provide any insight into how the implicit xenophobia of Western and East Asian populations differ. In the past fifteen years, much experimental research has revealed that to some degree, we all hold implicit biases against other people as a result of their race, nationality, and/or ethnicity (Greenwald & Krieger, 2006). People internalize biases as early as the age of four (Sinclair, Stacey, Dunn, and Lowery, 2005).

1.4 Implicit Cognition and the IAT

Implicit beliefs are measured through a test called the Implicit Association Test. The development of the Implicit Association Test (IAT) has enabled cognitive psychologists to measure and identify the disparity between self-reports of beliefs towards others and unconscious implicit beliefs. The IAT works by “measure[ing] how closely associated any given attitude object (e.g., a flower or an insect) is with

an evaluative attribute (e.g., pleasant or unpleasant words) and assumes that the more closely related the objects and attributes are, the stronger the implicit attitude is” (Karpinski & Hilton, 2001). The IAT has identified an array of implicit prejudices—racism, ageism, and sexism, to name a few. The prejudice that this current study aims to better understand is xenophobia.

If it is true that everybody is unconsciously xenophobic at some level, should we expect a greater disparity between the self-report and IAT results of xenophobic beliefs in Western populations compared to East Asian populations? To reframe the question—are East Asian populations simply more honest and aware of their xenophobic attitudes?

1.5 Suppression and Rebound Effects of Xenophobia

A comparison of implicit and explicit xenophobia within the two culturally different populations, Americans and Indians, will lead to a better understanding regarding which population tends to suppress xenophobia beliefs (perhaps as a result of societal standards). If a subject demonstrates significantly lower levels of explicit xenophobia, measured by self-report, compared to much higher levels of implicit xenophobia, measured by the IAT, that would indicate that the subject potentially is engaging in suppression of his or her internalized xenophobia (Ford, Teeter, Richardson, & Woodzicka, 2016).

We hypothesize that Western subjects will tend to suppress their internalized xenophobia because of social factors. In many parts of America, particularly urbanized metropolitan areas, social prejudices are profoundly condemned. In the past fifteen years, social justice movements like the “Black Lives

Matter” movement or annual gay pride parades that shut down main streets in major cities have rippled throughout America. Though overt prejudice undeniably remains a ubiquitous problem, many of the American people have engaged in an active effort to make America a fairer and more just place. Therefore, xenophobic, racist, homophobic, or sexist rhetoric or behavior is highly condemned (Robbins, 2016).

We hypothesize that American participants’ responses will reflect a desire to appear as fair and just people. Any prejudice or xenophobia that American participants harbor is not expected to be reflected in explicit questions regarding participants’ beliefs and attitudes towards others. In other words, we hypothesize that American participants will tend to suppress their xenophobia.

There are, however, some insidious side effects of suppression. Suppression, or the avoidance of unwanted thoughts, has the potential to produce detrimental “rebound effects” (Wenzlaff & Wegner, 2000). “The hypothesis suggested by several theorists is that attempts to suppress thoughts (or emotions) can result in a subsequent rebound of absorption with those topics” (Wenzlaff & Wegner, 2000). Do elements of Western culture lead to the suppression of xenophobic beliefs but subsequently result in detrimental rebound effects?

1.6 Present Study

The present research took place over the course of 8 months. The research included two distinct studies—Study 1 and Study 2. Both studies aimed to investigate the relationship between cultural values, implicit and explicit xenophobia, and suppression and rebound effects (see introduction). Based on the

results from Study 1, Study 2 was revised and condensed to better answer our original questions. Study 2 was also designed to reduce any noise that made results from Study 1 difficult to interpret. The research was administered online through Mechanical Turk and restricted to Indian and American participants.

Study 1 was a survey that included five different sections. The first section of the survey was a scenario-response task that measured how participants' xenophobia manifests in their reactions to positive and negative scenarios in everyday-life (one-paragraph fictional stories) under a cognitive load. The cognitive load was a memory load—participants were asked to memorize a number before they completed the responses to the scenarios (Paas et al., 2003). In the scenario-response section, the independent variables were the characters in the anecdotes, three of whom had traditional Indian or American names (depending on which nationality the participant specified at the beginning of the survey) and one who had a traditional Muslim name (Ahmed, 1999). The dependent variables of scenario-response section are participants' responses. The second section of the survey was an IAT that measured implicit xenophobia. The third section was a survey that assessed collectivist versus individualist values. The purpose of this section was to confirm that Indian participants tended to demonstrate a preference to collectivist values, while American participants tended to demonstrate a preference towards individualist values. The fourth section, the explicit xenophobia survey, included overt questions that were used to assess levels of explicit xenophobia. Finally, the fifth section was a demographic survey in which

participants were asked questions regarding their annual income, gender, political ideology, and education level.

Study 2 was also administered online via Mechanical Turk and was a survey that include four distinct sections. Study 2 was a shorter survey. Study 2 included subsections of a collectivist vs. individualist survey, a scenario-response task, an explicit xenophobia survey, and finally, a demographics survey. Unlike Study 1, Study 2 varied the ordering of the collectivist vs. individualist survey and the scenario-response task. Half of the participants for each nationality—Indian and American—completed the collectivist vs. individualist survey first, followed by the scenario-response task. The other half of participants completed the survey in the opposite order—the scenario-response task followed by the collectivist vs. individualist survey. The purpose of the varied survey flow was to ensure that the scenario-response task was not priming participants to respond to the collectivist vs. individualist survey differently than they would had they completed the survey without the scenario-response task, as this was something we speculated may have occurred in Study 1.

Additionally, the scenarios in the scenario-response task of Study 2 were different than those in Study 1. More details on their differences will be provided in the Study 2 section of this report. Finally, fewer questions were asked in the demographics and debriefing section of Study 2, further reducing the duration of the study.

2. Study 1

2.1 Predictions of Study 1

The following are the predictions of Study 1:

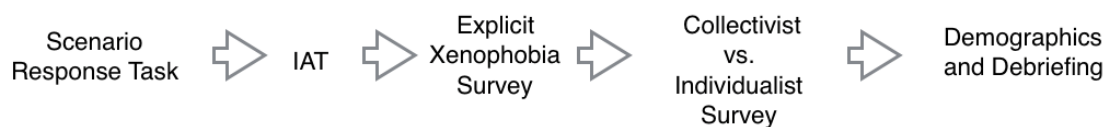
- 1.) We predict that American participants will tend to censor themselves and thus demonstrate lower levels of explicit xenophobia compared to Indian participants in an explicit xenophobia task. We predict this because we hypothesize that, as a result of American societal political correctness standards, Americans will tend to suppress their beliefs compared to Indian participants (Robbins, 2016).
- 2.) However, we predict that Americans and Indians will demonstrate equal levels of implicit prejudice towards immigrants because of past research that demonstrates that *all* people harbor biases, including unwanted biases (Greenwald & Krieger, 2006).
- 3.) Conversely, in the scenario-response section of the study, we predict that American participants will show a greater tendency compared to Indian participants to profile the immigrant character as the character who acted unethically as a result of the rebound effect of their greater levels of suppressed implicit xenophobia (Wenzlaff & Wegner, 2000).

2.2 Methods of Study 1

150 Participants were recruited via Amazon's Mechanical Turk. Using Mechanical Turk's settings, the subject pool was restricted to Indian and American participants only. America represents an individualistic culture and oppositely, India represents a collectivist culture. To participate in the survey, participants

were required to be above the age of 18. The survey was conducted online. Before completing the survey tasks, participants were required to provide their informed consent. Participants were asked to complete a series of tasks on the online survey. At the end of the study, participants were debriefed and paid \$0.25 for their participation in the study. The study took approximately 15 minutes.

2.3 Materials and Procedure of Study 1



2.3.1 Scenario-response Task

The first section of the survey was the scenario-response task. It required participants to read and respond to three different one-paragraph fictional scenarios under a memory cognitive load. The memory cognitive load was implemented by asking participants to read a seven-digit number that they are told to remember as they will be quizzed on the number at the end of the section. The purpose of the scenario-response task was to assess whether participants' xenophobia—implicit or explicit—informed their responses.

The one-paragraph scenarios that participants read fall under three distinct categories: 1.) a negative scenario in which one of the characters in the scenario acts immorally, 2.) a positive scenario, in which one of the characters acts notably morally, 3.) a control scenario, in which one of the characters acts in a neutral way—neither moral or immoral.

In all three scenarios, there are four characters and it is ambiguous which characters committed the immoral, moral, or neutral acts. Three of the characters have traditionally male names and one of the characters has a traditionally female name. Indian and American participants read slightly different scenarios—the only difference being that the names of the other characters differed slightly. Other than the differences in the characters' names, the scenarios that Indian and American participants read are identical. The Muslim named characters represent prototypical immigrants in each of the scenarios.

The negative scenario was a scene that participants read that involves one of the four characters committing an everyday-life transgression, but it is unclear which character does it. The participant is then asked who they believe committed the transgression. The positive scenario followed a similar structure to the negative scenario. It also represented an everyday life experience that involves four different people—one of whom has a prototypical Muslim name thus implying he is an immigrant.

American Scenarios

The scenarios that the American participants read included four characters—three of whom have traditional American names (John, Jim, Kristen, etc.) and one who has a traditional Muslim name (Waqas, Faizan, or Asif).

Positive American Scenario

The positive scenario that American participants read is the following:

Four friends, Kristen, Charles, Faizan, and James are standing in line to order at a local café. The person standing in front of them completes his

lunch order but soon after realizes that he does not have his wallet. One of the four friends—Kristen, Charles, Faizan, or James—offers to pay for the man who does not have his wallet. The man is very grateful that he can still have his lunch.

Participants were asked to answer comprehension questions after reading the scenario. An example of a comprehension question is, “where are the four friends?” Participants were also asked questions like, “rate the probability that each of the friends paid for the man’s lunch,” in which they are given a 100-point scale to rate the probability.

Negative American Scenario

The negative scenario that American participants read is the following:
Chris invites Samantha, John, and Waqas over to his house for lunch. Samantha, John and Waqas all arrive at the same time. At some point during their time at Chris’s house, each of them leaves the group to use the bathroom upstairs. Chris left a \$50 bill in his bathroom drawer that he forgot to put back into his wallet. When Sam, John, and Waqas leave Chris’s house, Chris goes to his bathroom to get the \$50 and put it back in his wallet. However, when he opens the drawer, the \$50 bill is no longer there. Chris believes that one of his guests took the \$50.

Following the survey participants were asked to answer comprehension questions. An example of a comprehension question is, “who did Chris invite to his house?” Following the comprehension questions, participants were asked questions

about their beliefs regarding who they thought the culprit was. An example of a belief question is: “rate the probability that each of the guests took the \$50,” in which they will be given a 100-point scale to rate the probability.

Control American Scenario

The control scenario that American participants read was the following:

Kelly, Jim, Paul, and Asif are sitting in a local café together discussing a book that they all read. One of them becomes thirsty and would like a glass of water.

Following the survey, participants were asked to answer comprehension questions. An example of a comprehension question is, “what were the friends discussing?” Following the comprehension questions, participants were asked questions about their beliefs regarding who they thought wanted a glass of water. An example of a belief question is: “rate the probability that each of the guests wanted a glass of water,” in which they are given a 100-point scale to rate the probability.

Indian Scenarios

The characters in the Indian scenarios all involved characters with traditional Muslim names (Anika, Sai, Aarav, etc.) except for the character with the traditional Muslim name (Waqas, Faizan, or Asif).

Positive Indian Scenario

The positive scenario that the Indian participants read is the following:

Four friends, Anaya, Akshay, Faizan, and Reyansh are standing in line to order at a local café. The person standing in front of them completes

his lunch order but soon after realizes that he does not have his wallet. One of the four friends—Anaya, Akshay, Faizan, or Reyansh—offers to pay for the man who does not have his wallet. The man is very grateful that he can still have his lunch.

Participants were asked to answer comprehension questions after reading the scenario. An example of a comprehension question is, “where are the four friends?” Participants were also asked questions like, “rate the probability that each of the friends paid for the man’s lunch,” in which they are given a 100-point scale to rate the probability.

Negative Indian Scenario

The negative scenario that Indian participants read is the following:

Aarav invites Anika, Sai, and Waqas over to his house for lunch. Anika, Sai, and Waqas all arrive at the same time. At some point during their time at Aarav's house, each of them leaves the group to use the bathroom upstairs. Aarav left a \$50 bill in his bathroom drawer that he forgot to put back into his wallet. When Anika, Sai, and Waqas leave Aarav's house, Aarav goes to his bathroom to get the \$50 and put it back in his wallet. However, when he opens the drawer, the \$50 bill is no longer there. Aarav believes that one of his guests took the \$50.

Following the survey participants were asked to answer comprehension questions. An example of a comprehension question is, “who did Aarav invite to his house?” Following the comprehension questions, participants were asked questions

about their beliefs regarding who they thought the culprit was. An example of a belief question is: “rate the probability that each of the guests took the \$50,” in which they are given a 100-point scale to rate the probability.

Control Indian Scenario

The control scenario that Indian participants read was the following:

Aaradhya, Advik, Rithvik, and Asif are sitting in a local café together discussing a book that they all read. One of them becomes thirsty and decides and would like a glass of water.

Following the survey participants were asked to answer comprehension questions. An example of a comprehension question is, “what were the friends discussing?” Following the comprehension questions, participants were asked questions about their beliefs regarding who they thought wanted a glass of water. An example of a belief question is: “rate the probability that each of the guests wanted a glass of water,” in which they are given a 100-point scale to rate the probability.

2.3.2 Implicit Association Task

The second task of Study 1 is an IAT that measures implicit xenophobia. This IAT is similar to the standard format of most other Implicit Association Tests (Greenawald & Banaji, 1995) and asks participants to sort words into categories. There are four different groups of words: positive words, negative words, immigrant words, and non-immigrant words. The positive words are: lovely, pleasure, glorious, beautiful, marvelous, wonderful, and joyful. The negative words

are: humiliate, terrible, superb, painful, nasty, horrible, agony, and tragic. The immigrant words are: foreigner, outsider, immigrant, non-native, migrant, and newcomer. The non-immigrant words are: native, non-immigrant, homegrown, citizen, original, and local. The IAT measures how closely participants associate immigrant words with “good” and “bad” words by the speed at which they group the words together.

2.3.3 Explicit Xenophobia Survey Task

The next task asks explicit questions regarding the attitudes and beliefs participants hold about immigrants. This section includes questions like, “Please rate how warm or cold you feel toward the following groups (0 = coldest feelings, 50 = neutral, 100 = warmest feelings).”

2.3.4 Collectivist vs. Individualist Survey

The next task was a survey that asked questions that measure whether participants aligned with collectivist versus individualist values. This section included questions like, “How much do you agree with this statement: ‘my personal identity, independent from others, is very important to me?’”

2.3.5 Demographics and Debriefing

The final section of the study was a background survey in which participants were asked to provide some demographic information such as race, age, gender, income, and political ideology. Participants were debriefed at the end of the study. The survey took approximately 15 minutes and participants were paid \$0.25 for their participation.

2.4 Results of Study 1

A total of 149 subjects participated in Study 1. Fifty-nine were Indian and 90 were American. However, only 67 of those participants completed the study fully because many opted out of taking the IAT. Of those 67 participants, 28 were Indian and 39 were American.

To test the assumption that Indian participants would be more collectivist than American participants, I conducted a one-way analysis of variance to test the effect of nationality (Indian versus American) on the variance of collectivists versus individualist attitudes: how much participants value “harmonious interdependence” (Markus & Kitayama, 1991) versus independence and self-sufficiency, respectively. The first two measures of collectivists versus individualist attitudes—participants’ responses to “How much do you agree with this statement: ‘my personal identity, independent from others, is very important to me?’” and “How much do you agree with this statement: ‘I’d rather depend on myself than others?’”—revealed no significant difference. However, the analysis showed that, as expected, there was a significant difference between American and Indian responses to the question, “How much do you agree with this statement: ‘I prefer to collaborate with others than work alone?’” $F(1, 147)=17.851, p<.001$. As expected, Indians valued collaboration over Americans, based on the response scale where 1= a great deal and 5 = none at all, $M_s=2.522$ vs. 3.356.

We also conducted a one-way analysis of attitudes towards immigrants (a feeling thermometer) to test the effect of nationality (Indian versus American) on

this measure. We asked participants to respond to the following question, "Please rate how warm or cold you feel towards immigrants (0 = coldest feelings, 50 = neutral, 100 = warmest feelings)." A main effect was obtained for feelings towards immigrants, $F(1, 147)=4.336$, $p<.039$. American participants had warmer feelings towards immigrants than did Indian participants, $M_s=65.5593$ vs. 56.40.

We conducted another one-way analysis of the tendency to profile a Muslim character as the thief in the fictional negative scenario to test the effect of nationality (Indian versus American) on this measure. A main effect for nationality was obtained, $F(1, 147)=5.199$, $p<.029$. Indian participants identified the Muslim character as the thief more than American participants.

However, important to note are the results of the one-way analysis of tendency to profile a Muslim character as the altruistic and charitable character in the positive scenario (in which one of the character aids another character by providing him lunch money) as an effect of nationality. In this measure, the same main effect for nationality as the negative scenario was obtained, $F(1, 147)=13.145$, $p<.024$. Indian participants identified the Muslim character as the aiding character more than American participants, $M_s=54.3444$ vs. 39.2034.

Finally, we conducted a one-way analysis of Implicit Association Test scores to determine the effect nationality has on the scores. There was no significant difference between the implicit association test scores of Indian and American participants. As expected, both groups showed negative bias towards immigrants, $M_s=-.2907$ for American participants, $M_s=-.2649$ for Indian participants. Negative

IAT scores indicate a bias towards immigrants, an IAT score of 0 indicates no bias, and a positive IAT score indicates a bias towards non-immigrants.

2.5 Discussion of Study 1

Before conducting this study, it was hypothesized that culture, cultural beliefs, explicit, and implicit bias were deeply connected and interacted in unique ways. Namely, based on previous research and understanding of collectivist and individualist cultures, it was hypothesized that that Indian participants would show a tendency to align with a collectivist belief system and American participants would align with an individualist belief system. We targeted this association between nationality and collectivist versus individualist beliefs by asking three key questions, (a) How much do you agree with this statement: 'I'd rather depend on myself than others'?" (b) How much do you agree with this statement: 'my personal identity, independent from others, is very important to me'?" (c) "How much do you agree with this statement: 'I prefer to collaborate with others than work alone'?". Surprisingly, we found that there was no significant effect of nationality on the first two questions, but there was a significant effect for the third question regarding collaboration. The fact that only one of the questions (instead of all three) revealed the expected collectivist beliefs of the Indian participants and individualist beliefs of the American participants is in conflict with the substantial research that indicates India is decisively a collectivist culture. This could be a product of India evolving into a more individualist culture as has been demonstrated in more recent research on India (Sinha, Sinha, Verma, & Sinha, 2001).

Another facet of our hypothesis revolved around the relationship between implicit bias, suppression, and rebound effects. We hypothesized that American and Indian participants would have comparable levels of implicit bias as measured by the Implicit Association Test. This was supported—there was no significant difference between American and Indian responses on the IAT and both groups of participant showed a bias towards immigrants. However, we then hypothesized that the disparity between the implicit bias of American participants and their self-reported feelings of warmth towards immigrants (as assessed by the feeling thermometer question) is a result of suppression. We hypothesized that unlike Indians, Americans were suppressing their bias as a result of cultural pressure and that therefore, in real life scenarios, their prejudiced reactions would be more severe than for Indians. This last level of the original hypothesis was not accurate.

The scenario-response section of the study was meant to represent a real-life scenario and solicit real-life responses. Indians still tended to reveal more bias in their reactions than Americans. In the negative scenario, in which one of the four characters steals \$50, Indians tended to profile Muslim as the thief significantly more than the Americans. One explanation for this is that the one-paragraph scenarios that were written were not truly emblematic of real life in the intended way. The question of how to engage participants such that they respond in the way that they would in real life is an ongoing discussion in psychology (Levitt & List, 2007). However, though the emotions and reactions to real-life situations can never truly be captured in participants' responses to text, the scenario-response task from

Study 1 had room to be improved. Based on results from Study 1, modifying the scenario-response task was one of the principal goals for Study 2.

3. Study 2

3.1 Revisions from Study 1

Based on our findings from study 1, the goals of study 2 were three-fold: 1.) To modify the scenario-response task such that the scenarios more closely resembled real-life situations. 2.) To re-test (using the same survey questions) collectivist versus individualist attitudes among participants. 3.) To vary the order of the entire study to ensure that certain sections were not influencing responses to later sections.

One of the main issues from the scenarios in the scenario-response task from Study 1 was that the purpose was potentially too obvious to participants. The goal of the scenario-response task was to trigger responses to the scenarios that would be the same as those that the participant would experience in real life. Recall that the negative scenario from Study 1 included four characters—Chris, Samantha, John and Waqas (or, for the Indian participants: Aarav, Anika, Sai, and Waqas). Waqas is very clearly an out-group name compared to the very common American and Indian names like Chris and Aarav, respectively. Because no other information was given about each character, it is likely that the goal of the study was salient for the subjects. That is, they knew that identifying the Muslim character, Waqas, as the thief would make them appear prejudice because the characters' names were their only defining features in Study 1.

Because of this, one of the main goals of Study 2 was to create more complex scenarios that more closely resembled real life. First, the scenarios were completely different situations so as to allow more details surrounding the event. Furthermore, each scenario involved only two potential agents (rather than three in the scenarios from Study 1). Finally, in each scenario additional information was provided as background for each character. For example, in the negative scenario from Study 2, participants learn that “Chris is a 16-year-old boy who enjoys video games and math class” and that “Waqas is a 17-year-old boy who enjoys sports and history class”. The purpose of providing more information about each of the characters was to make distinction of the Muslim versus in-group name less salient. If the participant was xenophobic, he or she could engage in “selective exposure”—the psychological phenomenon in which people tend to construe evidence that supports their pre-existing beliefs and ignore evidence that challenges it (Knobloch-Westerwick, 2014). By providing participants with more information about the characters, they were provided with information that they could use to reason that Muslim character was the perpetrator, when subconsciously their decision was guided by xenophobia.

Another important modification in Study 2 was that none of the characters had name that denoted they were women. All scenarios only involved traditionally male names. The purpose of this was to eradicate any noise in the data caused by gender stereotyping.

An additional modification made to the scenario response tasks in Study 2 was randomization of the survey flow. That is, the ordering of the collectivists vs. individualist survey and the scenario-response task was varied. Half of the

participants for each nationality—Indian or American—completed the collectivist vs. individualist task first, followed by the scenario-response task. The other half of participants completed the survey in the opposite order—the scenario-response task followed by the collectivist vs. individualist survey. The purpose of the varied survey flow was to ensure that the scenario-response task was not priming participants' responses collectivist vs. individualist survey to be different than they would have had the participants completed the survey without the scenario-response task as this was something we speculated may have occurred in Study 1.

3.2 Predictions

We predict the following for Study 2

1. We predict that Indians will demonstrate a great trend towards collectivist ideology versus individualist. Even though results from Study 1 would indicate the opposite of this predication, we think that results from Study 1 were possibly not indicative of a more general social ideology in India.
2. We predict that Indians will demonstrate greater explicit xenophobia than Americans.
3. Finally, we expect that Americans will tend to profile the Muslim character in the negative scenario more often than Indian participants. We predict this because of potential suppression of implicit bias towards immigrants (Muslims in the scenario) and the tendency to profile the Muslim character as the thief would be the rebound effect of this suppression.

3.3 Methods

300 Participants were recruited via Amazon's Mechanical Turk. Using Mechanical Turk's settings, the subject pool was restricted to Indian and American participants only. America represents an individualistic culture and oppositely, India represents a collectivist culture. To participate in the survey, participants were required to be above the age of 18. The survey was conducted online. Before completing the survey tasks, participants were required to provide their informed consent. Participants were asked to complete a series of tasks on the online survey. At the end of the study, participants were debriefed and paid \$0.25 for their participation. The study took approximately 10 minutes to complete.

As in Study 1, we examined the effect of nationality on individualist and collectivist score—how much participants value “harmonious interdependence” (Markus & Kitayama, 1991) versus independence and self-sufficiency, respectively. As in Study 1, we tested this with three principal questions: 1.) “How much do you agree with this statement: “I am impressed when someone is self-sufficient”?” 2.) How much do you agree with this statement: “my personal identity, independent from others, is very important to me”?” and 3.) How much do you agree with this statement: “I'd rather depend on myself than others”?” (Triandis & Gelfland, 1998). The variable, “indcol123” served as the average of these three items. Average of the three items served as the individualism/collectivism score.

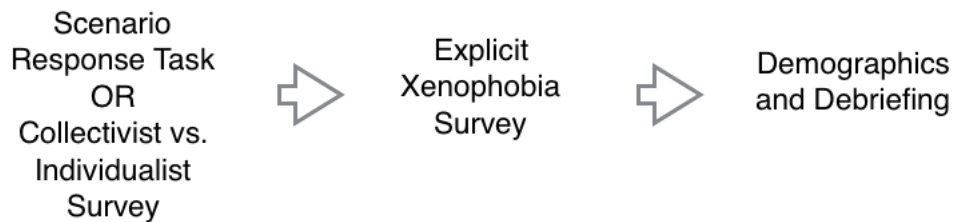
Participants responded to three scenarios reflecting a negative act, positive act, and a neutral act. Participants were asked three main questions following the scenarios. The first asked them to rate the probability that the Muslim character

committed the act (Scenario Measure1). The second question asked them to rate the probability that the in-group character committed the act (Scenario Measure 2). The third question asked who they believed committed the act if they had to choose (Scenario Measure3).

To test explicit xenophobia, we used a feeling thermometer. We asked participants to respond to the following question, "Please rate how warm or cold you feel towards immigrants (0 = coldest feelings, 50 = neutral, 100 = warmest feelings)". Participants used a sliding scale to respond.

3.4 Materials and Procedure

The survey flow was varied for half of participants. Half of the American subjects took the survey that began with the scenario-response task, that was followed by the collectivist versus individualist survey. The other half of American participants took the oppositely ordered survey that began with the cultural collectivist versus individualist survey that was followed by the scenario-response task. Similarly, half of Indian participants took the survey that began with the scenario-response task that was followed by the collectivist versus individualist survey, while the other half of Indian participants took the oppositely ordered survey that began with the cultural ideology survey that was followed by the scenario-response task. The purpose of the varied survey flow was to ensure that participants' responses were not being influenced by earlier sections of the survey



3.4.1 Collectivists vs. Individualist Survey

The collectivist versus individual survey included five questions, all of which were also included in Study 1: 1.) “How much do you agree with this statement: ‘I’d rather depend on myself than others?’”, 2.) “How much do you agree with this statement: ‘my personal identity, independent from others, is very important to me?’”, 3.) “How much do you agree with this statement: ‘I prefer to collaborate with others than work alone?’” 4.) “How much do you agree with this statement: ‘I am impressed when someone is self-sufficient?’”. The purpose of reusing the same questions from Study 1 was to better understand whether our results from Study 1, that indicated no significant difference between the collectivist versus individualist ideologies were, replicable (Markus & Kitayama, 1991). As discussed in the discussion section of Study 1, it is possible that economic growth and modernization in India has resulted in a quickly evolving cultural ideology moving away from collectivism.

3.4.2 Scenario Response Task

Like Study 1, participants read three short scenarios. Following the scenarios, the participants were asked comprehension question followed by opinion questions. The purpose of the comprehension questions were to simply ensure that

the participant read and understood the scenarios. Those who responded incorrectly to the comprehension questions were excluded from the data analysis.

To ensure that the arbitrary traits that were assigned to each character did not create noise in our data, we randomized the names of the characters. For example, in the positive scenario, half of the American participants read that "*Faizan is in English class with John and wants to be a doctor. James is in art class with John and wants to be an engineer,*" while the other half of participants read, "*James is in English class with John and wants to be a doctor. Faizan is in art class with John and wants to be an engineer.*" The same logic for name swapping was used for all scenarios. Again, the purpose was to make sure that to eradicate any influence that the superfluous descriptors had on participant responses, like for example stereotypes surrounding people who like video games.

Following the scenarios, participants were asked questions about who they thought the "actor" in question was. After reading each scenario, participants were asked to rate the probabilities that each character in question broke into the locker, left the nice note, or who became thirsty.

American Scenarios

Similar to Study 1, the surveys that Indian and American participants completed were nearly identical but for the names of the characters in each scenario. The American scenarios used prototypical names (such as John, James, Paul, Tim, and Chris) for the majority of characters. Similar to Study 1, the character meant to represent the immigrant in the scenario had a Muslim name (Faizan, Waqas, or Asif).

Positive American Scenario

The following was the positive scenario that American participants read:

John was sick for two days and missed school. When he comes back to school, he finds a nice note in his locker that says, "Hope you're feeling better, John! Missed you in class!" John is trying to figure out which of his classmates left this nice note. He thinks it is either Faizan or James. Faizan is in English class with John and wants to be a doctor. James is in art class with John and wants to be an engineer. One of John's friends told him that he saw Faizan put the note in his locker. However, a different friend told John that he saw James writing the note during lunch.

Like in Study 1, following the scenario, participants were asked both belief and comprehension questions. An example of a comprehension question is, "Why did John miss two days of school?" and an example of a belief question is, "If you had to decide on one person who put the note in the locker, who it would it be—Faizan or James?" Again, it is important to note that half of the participant read the scenario as displayed above, while the other half read it as "**James** is in English class with John and wants to be a doctor. **Faizan** is in art class with John and wants to be an engineer." Again, the purpose of the randomization of the names was to reduce any potential noise in the data caused by the arbitrary traits.

Negative American Scenario

The following was the negative scenario that American participants read:

Tim, a 17-year-old student in high school, discovers that his locker has been robbed. His computer and wallet are no longer in his locker and it appears that the lock on his locker has been cut. To figure out who robbed Tim's locker, the school principle conducts a series of interviews with students. After the interviews, the principle has narrowed his investigation down to two suspects—Chris and Waqas. Chris is a 16-year-old boy who enjoys video games and math class. Waqas is a 17-year-old boy who enjoys sports and history class. In one of the interviews, a student reported that he saw Chris holding Tim's wallet in the cafeteria on the day that Tim's locker was broken into. However, another student claims that he saw Waqas using Tim's computer in the library on the day that Tim's locker was broken into.

Following the scenario, participants were asked both belief and comprehension questions. An example of a comprehension question is, "What's missing from Tim's locker?" and an example of a belief question is, "If you had to decide on one person who broke into the locker, who it would it be—Chris or Waqas?" Again, it is important to note that half of the participants read the scenario as displayed above, while the other half read it as "**Waqas** is a 16-year-old boy who enjoys video games and math class. **Chris** is a 17-year-old boy who enjoys sports and history class."

Control American Scenario

The following was the control scenario that American participants read:

Paul and Asif are sitting in a local café together discussing a book that they both read. One of them becomes thirsty and would like a glass of water.

Following the scenario, participants were asked both belief and comprehension questions. An example of a comprehension question is, “What are Paul and Asif discussing?” and an example of a belief question is, “If you had to choose, who do you think became thirsty—Paul or Asif?” The same logic for name swapping was used (explained in section *Scenario Response Task*).

Indian Scenarios

Positive Indian Scenario

The following was the positive scenario that Indian participants read:

Akshay was sick for two days and missed school. When he comes back to school, he finds a nice note in his locker that says, “Hope you’re feeling better, Akshay! Missed you in class!” Akshay is trying to figure out which of his classmates left this nice note. He thinks it is either Faizan or Reyansh. Faizan is in English class with Akshay and wants to be a doctor. Reyansh is in art class with Akshay and wants to be an engineer. One of Akshay’s friends told him that he saw Faizan put the note in his locker. However, a different friend told Akshay that he saw Reyansh writing the note during lunch.

Like in Study 1, following the scenario, participants were asked both belief and comprehension questions. An example of a comprehension question is, “Why did Akshay miss two days of school?” and an example of a belief question is, “If you

had to decide on one person who put the note in the locker, who it would it be—Faizan or Reyansh?” The same logic for name swapping was used (explained in *Scenario Response Task*).

Negative Indian Scenario

The following is the negative scenario that Indian participants read:

Aarav, a 17-year-old student in high school, discovers that his locker has been robbed. His computer and wallet are no longer in his locker and it appears that the lock on his locker has been cut. To figure out who robbed Aarav's locker, the school principle conducts a series of interviews with students. After the interviews, the principle has narrowed his investigation down to two suspects—Sai and Waqas. Sai is a 16-year-old boy who enjoys video games and math class. Waqas is a 17-year-old boy who enjoys sports and history class. In one of the interviews, a student reported that he saw Sai holding Aarav's wallet in the cafeteria on the day that Aarav's locker was broken into. However, another student claims that he saw Waqas using Aarav's computer in the library on the day that Aarav's locker was broken into.

Following the scenario, participants were asked both belief and comprehension questions. “What’s missing from Aarav’s locker?” and an example of a belief question is, “If you had to decide on one person who broke into the locker, who it would it be—Sai or Waqas?” The same logic for name swapping was used (explained in *Scenario Response Task*).

Control Indian Scenario

The following was the control scenario that Indian participants read:

Rithvik and Asif are sitting in a local café together discussing a book that they both read. One of them becomes thirsty and would like a glass of water.

Following the scenario, participants were asked both belief and comprehension questions. An example of a comprehension question is, “What are Rithvik and Asif discussing?” and an example of a belief question is, “If you had to choose, who do you think became thirsty—Rithvik or Asif?” The same logic for name swapping was used (explained in section *Scenario Response Task*).

3.4.3 Explicit Xenophobia

The Explicit Xenophobia Survey section included twelve questions meant to target explicit beliefs regarding immigrants and foreigners. These questions were the same as those that appeared in Study 1. Some examples of these questions are: “Please rate how warm or cold you feel toward the following groups (0 = coldest feelings, 50 = neutral, 100 = warmest feelings)”, “How much do you agree with this statement: “Although I don't necessarily agree with them, I sometimes have prejudiced feelings (like gut reactions or spontaneous thoughts) that I don't feel I can prevent”?”, and “How much do you agree with this statement: “It should be against airport policy to allow airport security to search passengers based on their ethnic group””.

3.4.4 Demographics and Debriefing

The Demographics and Debriefing section of the survey included four questions surrounding age, gender, political ideology, and level of education.

3.5 Results

A total of 297 subjects completed Study 2. Of these subjects, 203 were Indian and 94 were American.

Collectivist vs. Individualist

We conducted a one-way analysis of variance to test the effect of nationality (Indian versus American) on variance of collectivists versus individualist attitudes. Similar to Study 1, responses between American and Indian participants revealed no significant difference, $F(1, 295)=0.297, p<.586$. The individualism-collectivism score did not predict any bias within each nationality or overall.

Scenario Response

Participants responded to three scenarios reflecting a negative act, positive act, and a neutral act.

Negative Scenario

We conducted a one-way analysis of tendency to profile a Muslim character ("Waqas") to test the effect of nationality on the perceived likelihood that the Muslim character committed the negative act with three different measures, Scenario Measure1, Scenario Measure2, and Scenario Measure3. All three of measures were questions regarding participants' belief about which character, the Muslim or in-group character, committed the negative act (stealing from the locker). A main effect for nationality was obtained for Scenario Measure1, which asked participants to assess the likelihood that the Muslim character stole from the locker, $F(1, 295)=10.117, p<.002$. On average, Indian participants rated it as more

probable (59.97%) that Waqas (the Muslim character) broke into the locker than did American participants (52.33%).

For the negative scenario in which an unknown character steals from a locker, we also obtained a main effect for nationality on the likelihood that the in-group member committed the act, $F(1,295)=6.971, p<.009$. On average, Indian participants rated it as more probable (59.92%) that the in-group character broke into the locker, than did American participants (54.44%).

Scenario Measure3 asked participants to choose either the Muslim or in-group member as the thief if they were forced to choose. A main effect of nationality on tendency to choose either the Muslim or in-group character as the thief was obtained, $\chi^2 (1, N = 298) = 12.10, p < .001$: 54.5% of Indian participants identified the Muslim character as the thief in the negative scenario, whereas 30.9% of the American participants identified the Muslim character as the thief.

Positive Scenario

We conducted a one-way analysis of tendency to profile a Muslim character to test the effect of nationality on the perceived likelihood that the Muslim character committed the positive act with two different measures. A main effect for nationality was obtained for Scenario Measure1, which asked participants to assess the likelihood that the Muslim character left the nice note for another student, $f(1, 295)=8.789, p<.003$. On average, Indian participants rated it as more probable (60.60 %) that the Muslim character put the note in the locker, than did American participants (52.49%).

For the positive scenario in which an unknown character leaves a kind note in another student's locker, no main effect of nationality on the likelihood that the in-group member committed the act was obtained, $F(1, 295)=1.187, p<.277$. On average, Indian participants rated it as slightly (but not significantly) more probable (58.23%) that the in-group character committed the positive act, than did American participants (55.20%).

Scenario Measure3 asked participants to choose either the Muslim or in-group member as the person who left the nice note. A main effect of nationality on tendency to choose either the Muslim or in-group character who left the note in the positive scenario was obtained, $\chi^2(1, N = 298) = 12.10, p < .001$. 51.5% of Indian participants identified the Muslim character as the actor in the positive scenario, whereas 50% of the American participants identified the Muslim character as the actor in the positive scenario.

Control Scenario

For the control scenarios involving a neutral act, there was no difference in any of the Scenario measures as a function of nationality.

Explicit Xenophobia

We conducted a one-way analyses of attitudes towards immigrants and attitudes toward non-immigrants using a feeling thermometer, in which participants rated their feelings towards immigrants and non-immigrants on a scale (refer to Methods section for more detail) to test the effect of nationality (Indian versus American) on this measure. The means for attitudes toward immigrants and for in-group members for Indian and American respondents are presented in Figure

1. For ratings of immigrants, there was no difference as a function of participant nationality, $F(1,295)=2.621, p<1.07$. However, Indian participants reported less warm feelings toward non-immigrants (64.37) than did American participants (72.26), $F(1, 295)=7.419, p<.007$.

Among Americans, the degree to which people favored non-immigrants over immigrants in warmth was lower for Americans who believed more that stereotyping was wrong, $r(92) = .32, p = .002$, and who tried try to be non-prejudiced, $r(92) = .27, p = .010$. These were not significant for Indians, $r(202) = -.09, p = .226$, and $r(202) = .07, p = .290$.

3.6 Discussion

There was no significant difference in collectivist and individualist score between Indian and American participants. As we suggested in the discussion of Study 1, this could be a direction for future research to investigate. One hypothesis is that India has recently experienced rapid economic growth and the social consequence of this is has been an evolution away from collectivism and towards individualism.

For the negative scenario response section, Indian participants tended to indicate that they believed that it was the Muslim character who was thief more than American participants. However, Indian participants also rated it more likely that the in-group character was the thief more than American participants. Therefore, it is possible that results were a product of Indian participants having a tendency to rate higher regardless of the measure.

For the positive scenario in the scenario-response, Indian participants again tended to believe that it was more likely that the Muslim character who left the nice note compared to American participants. However, there was no significant difference between Indian versus American belief that it was the in-group character (either Indian or American) who left the nice note for the positive scenario.

For the explicit belief tasks, in which participants rated their feeling on a “feelings thermometer” (0=coldest, 100=warmest), Indians tended to have less warm feelings towards immigrants than Americans. However, American showed a greater upwards jump in their feelings towards non-immigrants (compared to their feelings towards immigrants) than Indians. While Indian participants rated similar feelings towards immigrants and non-immigrants that were both slightly less warm than the feelings that Americans reported, American expressed significantly greater feelings of warmth toward non-immigrants compared to their expressed feelings toward immigrants.

4. General Discussion

General Pattern

In both Study 1 and Study 2, Indian participants tended to profile the Muslim character as the actor in question for both the positive, negative, and control scenarios more than American participants. Across both studies, Americans tended to express warmer explicit feeling towards immigrants. However, in Study 2 we saw that though Americans expressed warmer feelings towards immigrants, they expressed *even warmer* feelings towards non-immigrants indicating that they could

be displaying their bias through in-group favoritism. Only in Study 1 did we conduct an Implicit Association Test which revealed no significant difference between American and Indian implicit biases towards immigrants. However, for the other components that were included in both studies—scenario response, cultural ideology, and explicit bias—there were no contradictory findings in results.

As discussed, across both studies Americans tended to have greater positive orientations towards immigrants than Indians. However, in Study 2, though Americans had warmer feelings towards immigrants than Indian participants, in the context of how they rated their own group, Americans displayed a greater bias towards immigrants. In a past study conducted by Greenwald and Pettigrew, in-group favoritism rather than outgroup deprecation was shown to be a way in which bias against out-groups is expressed among Americans (Greenwald & Pettigrew, 2014). On average, as illustrated in Figure 1, American participants tended to show greater warmth towards both immigrants and non-immigrants compared to Indian participants.

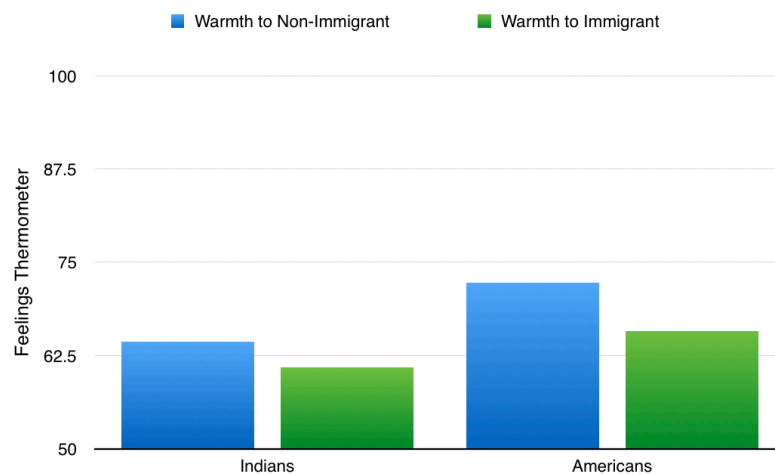


Figure 1

Implications

Collectivism and individualism have been associated with different beliefs and attitudes towards others. As Chen et al. (2008) discuss, “one of the important conceptual distinctions between individualism and collectivism is the significance of group membership. Compared to individualists, the boundary between in-group and out-group members is sharper among collectivists” (Chen et al. 2008). Because of this, a hypothesis for both Study 1 and Study 2 was that Indians would show greater preference for those of their own nationality and cooler attitudes towards immigrants. Conversely, it was hypothesized that there would only be a slight, if any, American preference for immigrants versus non-immigrants. We hypothesized this for two reasons: firstly, America is an individualist culture and past research has demonstrated that people from individualist cultures tend to foster less of distinction between themselves and out-group members because their association with their own in-group is weaker. Secondly, we hypothesized American participants would explicitly show a minimal bias towards immigrants because of American social pressures and expectations to appear non-prejudice. There was a significant difference between Indian participants’ feelings towards immigrants and American participants’ feelings towards immigrants. Both Study 1 and Study 2 showed that Americans had warmer feelings towards immigrants. However, as previously discussed, Americans had even warmer feelings towards non-immigrants therefore possibly indicating that a negative bias towards immigrants

manifests itself as preference towards non-immigrants (rather than direct negative feelings towards immigrants).

The goal of the scenario-response section of both studies was to determine how participants would respond if the events were taking place in real-life (Paas et al. 2003). Who would you blame if you realized your \$50 had gone missing? Or who would you suspect left a friendly note? It is likely that reading a 1-paragraph scenario, from either Study 1 or Study 2, elicited the same response as would a real-life scenario occurring in real time with real people. Future research on this topic may involve a timed video game or another tool that makes engaging with the scenario a more interactive experience than simply reading and responding to a written anecdote.

Another major goal of the present research was to understand if system 1 and system 2 beliefs about immigrants was notably different between Americans and Indians. A second major goal of the present research was to better understand *why* those differences may exist—social pressures, a personal desire to be less prejudice, etc. In Study 1, Americans exhibited lower levels of explicit bias towards immigrants and comparable levels of implicit bias compared to Indians. The most interesting part of the study remains unanswered—are Americans suppressing their biases and are there dangerous rebound effects of this suppression? This question can only be answered if future research can actually create a real-life setting that will ultimately enable social scientists to truly understand how Americans and Indians respond to different scenarios in real life.

Limitations

A major limitation of both Study 1 and Study 2 was that the scenarios, that were meant to draw out “real-life” reactions to events were texts and therefore did not have the capacity to bring out such a response in an online study. Though we tried to make the scenarios more realistic in Study 2 by adding superfluous information not directly related to the question at hand (“who stole from the locker?”), we still do not think that it sufficiently enhanced the story to make it “real” enough to draw out real life reactions from participants.

Another limitation of this study was that it was conducted on Mechanical Turk. One possible reason why the Indian population did not exhibit collectivist ideology is because they were a specific population within India, the MTurk population.

How does overt xenophobia exist in different cultures? Common belief is that overt xenophobia is a reflection of internal thoughts and ideas. However, what if the relationship exists in opposite? Do overtly expressed xenophobic thoughts subsequently affect implicit xenophobia? This question remains unanswered by the present research, but nonetheless is an important one to pursue. If cultural pressures are in fact having the opposite to the intended affects, that is an issue that needs to be fixed. In the United States, a common rhetoric is that fixing racism, sexism, and any sort of prejudice begins at the personal level of censoring oneself on a daily basis. In many ways, social justice problems have become topics that only the oppressed have full authority to discuss and unpack. What if this restriction is

causing the very problem it seeks to fight? There is much more research to be done in this evolving field.

References

- Ahmed, S. (1999). *A dictionary of Muslim names*. NYU Press.
- Apfelbaum, E. P., Pauker, K., Ambady, N., Sommers, S. R., & Norton, M. I. (2008). Learning (not) to talk about race: when older children underperform in social categorization. *Developmental psychology*, 44(5), 1513.
- Chaiken, S. (2013). Rethinking the Role of Facilitation and Inhibition in Stereotyping. *Stereotype Activation and Inhibition: Advances in Social Cognition*, 11, 145.
- Chen, F. F. (2008). What happens if we compare chopsticks with forks? The impact of making inappropriate comparisons in cross-cultural research. *Journal of personality and social psychology*, 95(5), 1005.
- Dovidio, John F., et al. "Extending the benefits of recategorization: Evaluations, self-disclosure, and helping." *Journal of Experimental Social Psychology* 33.4 (1997): 401-420.
- Echabe, A. E., & CASTRO, J. L. G. (1996). Images of immigrants: A study on the xenophobia and permeability of intergroup boundaries. *European Journal of Social Psychology*, 26(3), 341-352.
- Evans, J. S. B. (2008). Dual-processing accounts of reasoning, judgment, and social cognition. *Annu. Rev. Psychol.*, 59, 255-278.
- Ford, T. E., Teeter, S. R., Richardson, K., & Woodzicka, J. A. (2016). Putting the brakes on prejudice rebound effects: An ironic effect of disparagement humor. *The Journal of Social Psychology*, 1-16.
- Garcia, S. M., Tor, A., & Schiff, T. M. (2013). The psychology of competition a social comparison perspective. *Perspectives on Psychological Science*, 8(6), 634-650.
- Greenwald, A. G., & Banaji, M. R. (1995). Implicit social cognition: attitudes, self-esteem, and stereotypes. *Psychological review*, 102(1), 4.
- Greenwald, A. G., & Krieger, L. H. (2006). Implicit bias: Scientific foundations. *California Law Review*, 94(4), 945-967.
- Greenwald, A. G., & Pettigrew, T. F. (2014). With malice toward none and charity for some: Ingroup favoritism enables discrimination. *American Psychologist*, 69(7), 669.

- Karpinski, A., & Hilton, J. L. (2001). Attitudes and the Implicit Association Test. *Journal of personality and social psychology*, 81(5), 774.
- Knobloch-Westerwick, S. (2014). *Choice and preference in media use: Advances in selective exposure theory and research*. Routledge.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological review*, 98(2), 224.
- Miller, J. G. (1988). Bridging the content-structure dichotomy: Culture and the self.
- Morgan, G. (2016). *Global Islamophobia: Muslims and moral panic in the West*. Routledge.
- Muralidharan, S., La Ferle, C., & Sung, Y. (2015). How culture influences the “social” in social media: socializing and advertising on smartphones in India and the United States. *Cyberpsychology, Behavior, and Social Networking*, 18(6), 356-360.
- Landrine, H. (1992). Clinical implications of cultural differences: The referential versus the indexical self. *Clinical Psychology Review*, 12(4), 401-415.
- Levitt, S. D., & List, J. A. (2007). What do laboratory experiments measuring social preferences reveal about the real world?. *The journal of economic perspectives*, 21(2), 153-174.
- Liu, J., Lee, C., Hui, C., Kwan, H. K., & Wu, L. Z. (2013). Idiosyncratic deals and employee outcomes: The mediating roles of social exchange and self-enhancement and the moderating role of individualism. *Journal of Applied Psychology*, 98(5), 832.
- Paas, F., Tuovinen, J. E., Tabbers, H., & Van Gerven, P. W. (2003). Cognitive load measurement as a means to advance cognitive load theory. *Educational psychologist*, 38(1), 63-71.
- Richeson, J. A., & Ambady, N. (2001). Who's in charge? Effects of situational roles on automatic gender bias. *Sex Roles*, 44(9-10), 493-512.
- Robbins, S. P. (2016). From the Editor—Sticks and Stones: Trigger Warnings, Microaggressions, and Political Correctness. *Journal of Social Work Education*, 52(1), 1-5.
- Sanchez-Mazas, M. (2015). *Xenophobia: Social Psychological Aspects*.

- Sen, R., & Wagner, W. (2005). History, emotions and hetero-referential representations in inter-group conflict: the example of Hindu-Muslim relations in India. *Papers on Social Representations*, 14(2), 1-23.
- Sinha, J. B., Sinha, T. N., Verma, J., & Sinha, R. B. N. (2001). Collectivism coexisting with individualism: An Indian scenario. *Asian journal of social psychology*, 4(2), 133-145.
- Shah, G., Shah, G., Rajadhyaksha, U., & Rajadhyaksha, U. (2016). Global cities, work and family collectivism and work-family conflict in India. *South Asian Journal of Global Business Research*, 5(3), 341-361.
- Shin, H., Dovidio, J. F., & Napier, J. L. (2013). Cultural differences in targets of stigmatization between individual-and group-oriented cultures. *Basic and Applied Social Psychology*, 35(1), 98-108.
- Shweder, R. A., & Bourne, E. J. (1984). Does the concept of the person vary cross-culturally? W: RA Shweder, RA LeVine (red.), *Culture theory: Essays on mind, self, and emotion* (s. 158-199).
- Suls, J., Martin, R., & Wheeler, L. (2002). Social comparison: Why, with whom, and with what effect?. *Current directions in psychological science*, 11(5), 159-163.
- Triandis, H. C. & Gelfland, M. J. (1998). Converging measurement of horizontal and vertical individualism and collectivism. *Journal of Personality and Social Psychology*, 74, 118-128.
- Valsiner, J. (2007). Culture in minds and societies: Foundations of cultural psychology. *Psychol. Stud.*(September 2009), 54, 238-239.
- Vargas, J. H., & Kemmelmeier, M. (2013). Ethnicity and contemporary American culture a meta-analytic investigation of horizontal-vertical individualism-collectivism. *Journal of Cross-Cultural Psychology*, 44(2), 195-222.
- Wenzlaff, R. M., & Wegner, D. M. (2000). Thought suppression. *Annual review of psychology*, 51(1), 59-91.
- Xenophobia. (n.d.). Retrieved April 18, 2017, from <https://www.merriam-webster.com/dictionary/xenophobia>