7-7-2017 12:00 AM

Perception And Construction of Individuals At The Intersect Of Race And Immigration Status

Paolo Aldrin Palma
The University of Western Ontario

Supervisor
Victoria Esses
The University of Western Ontario

Graduate Program in Psychology
A thesis submitted in partial fulfillment of the requirements for the degree in Master of Science
© Paolo Aldrin Palma 2017

Abstract

Although perceptions of intersectional group identities (e.g., race and gender) have gained focus in recent years, an oft-ignored group in this line of work are immigrants. Across three studies, attitudes and stereotypes of different groups as a function of race and immigrant status, and how experiences of racism affect people's attitudes towards immigrants, were examined. Study 1 found attitudes and stereotypes clustered around target race, not immigration status ($n = 498$) though people's attitudes were most favourable for Canadians with no attached race label. Study 2 found that experiences of racism affected attitudes towards immigrants expressed by a representative sample of Asian Americans ($n = 3,511$). These effects were not replicated in a study of Canadian undergraduates in which the salience of experiencing personal race-based discrimination was manipulated ($n = 108$). Together, these findings highlight the importance of examining immigrant attitudes from the majority and minority perspective.

Keywords

Acknowledgments

The past two years have flown by quickly. Through that time, I've met many people who have helped me grow both professionally and personally. First and foremost, I would like to thank my supervisor, Dr. Victoria Esses, for her mentorship throughout these two years and allowing me to pursue my interests freely. Most importantly, I am grateful for her continued effort in engaging the community with her research and providing me the opportunity to do the same. It is this grounding of research within service to the community that has strengthened my resolve to continue onto my PhD to further hone my skills.

Secondly, I would like to thank Dr. Paul Tremblay, for all the time and effort he has given to us as students in and out of his class. He is like a second mentor to me, and I know many other people feel the same way. I would also like to apologize for that one day I fell asleep during SEM; the class wasn't boring I just hadn't gotten any sleep the night before due to various deadlines. Thank you for shaking it off jokingly in class, and I am very proud to hold the title of "most classes taken with Paul" along with Vanessa.

I would also like to thank the many research assistants who have helped me along the way—Amy Beaudry and Maya Ingrao for collecting data for Study 1; and Jessica Jin, Janice Lam, and Kevin To for collecting data for Study 3. This thesis could not have been completed without your efforts.

Table of Contents

List of Tables

List of Figures

List of Appendices

Chapter 1

1   Introduction

Group memberships guide our perceptions of others and form the basis of our social identities (Tajfel & Turner, 1979; Turner & Reynolds, 2011). Though research has examined how people reconcile intersecting identities from the perspectives of both perceivers (e.g., Weber & Crocker, 1983; Macrae, Milne, & Bodenhausen, 1995; Purdie-Vaughns & Eibach; Kang & Chasteen, 2009) and targets of discrimination (e.g., Pak, Dion, & Dion, 1991; Remedios, Chasteen, & Paeks, 2012; Remedios & Snyder, 2015), most of this research has involved the intersections of race, age, and/or gender. One dimension that is often ignored or conflated with race is immigration status—that is, whether a person from a specific race or ethnic group is an immigrant or a non-immigrant citizen. As such, the purpose of this research is two-fold—to examine people's perceptions of individuals at the intersection of race and immigration status, and to examine how non-immigrant racial minorities perceive immigrants of their own racial group.

1.1   Overview of the Psychological Perspectives on Immigration

From the perceiver's perspective, the psychological study of immigration focuses on beliefs and attitudes towards immigrants, and how this affects immigration policy. In terms of intrapersonal processes, the dual-process cognitive-motivation theory (Duckitt, 2001) suggests that prejudice can stem from ideological dispositions such as right-wing authoritarianism (RWA) and social dominance orientation (SDO). Right-wing authoritarian individuals have a propensity to adhere to social conventions and norms, which leads to anti-immigrant prejudices due to perceived differences in values between ingroups and immigrants (Duckitt & Sibley, 2010; Craig & Richeson, 2014a). In contrast, those high in social dominance orientation prefer social hierarchies and are predisposed to viewing the world as inherently competitive. This in turn leads to prejudice when immigrants are perceived as economically competitive and disruptive of existing social hierarchies (Duckitt & Sibley, 2010; Craig & Richeson, 2014a).

Mirroring Duckitt's (2001) model, intergroup theories also suggest that perceived threat and competition lead to prejudice. The Integrated Threat Theory (ITT; Stephan, Ybarra, & Bachman, 1999) proposes that real and symbolic threats lead to anti-immigrant attitudes. The ITT conceptualizes real threats as any threat to the ingroup's well-being, whereas symbolic threats refer to differences in values between the ingroup and outgroup (Pearson, 2010). Similarly, the instrumental model of group conflict (IMGC) proposes that anti-immigrant prejudice is driven primarily by perceived realistic (e.g., economic stress) and symbolic (e.g., social status; cultural dominance) competition (Esses, Jackson, & Armstrong, 1998; Esses, Dovidio, Jackson & Armstrong, 2001). Although psychologists have used these frameworks to study attitudes towards different immigrant classes such as skilled workers and refugees (e.g., Esses, Medianu, & Lawson, 2013; Louise, Lalonde, & Esses, 2010; Dietz, Joshi, Esses, Hamilton, & Gabarrot, 2015), less focus is given to how attitudes and stereotypes towards various ethnic groups vary as a function of immigration status.

One approach that psychologists have taken to investigate differences in how immigrants are perceived as a function of ethnicity or source-country origin is the stereotype content model (Fiske, Cuddy, Glick, & Xu, 2001; Cuddy et al., 2009). This model proposes that group stereotypes can be mapped along dimensions of perceived competence (e.g., intelligent, capable) and warmth (e.g., sincere, likeable). Groups that are capable and economically successful are typically seen as high in competence, whereas groups that do not compete with the interest of ingroups are perceived to be high in warmth-like traits. As such, group stereotypes typically fall along four quadrants. Two of these quadrants are uniformly positive or uniformly negative. For instance, ingroup members are typically seen as high competence/high warmth. In contrast, homeless individuals and refugees are typically seen as low competence because of their low economic standing, and low warmth because they are seen as a drain on public resources. Stereotypes can also manifest as ambivalent in nature in which groups contain a mix of positive and negative traits. For instance, Asian individuals are typically stereotyped as high competence and low warmth. This is due to stereotypes of Asian success (e.g., mode minority myth) while at the same time being perceived as economically competitive towards White individuals. Additionally, groups can also be seen as low competence and

high warmth. For instance, elderly individuals are seen as low in competence because they are usually economically dependent on their kin, but are seen as warm because they are non-threatening.

Integrating this with the Instrumental Model of Group Conflict, immigrants in general should be seen as low in warmth due to perceived group competition for resources. Similarly, the IMGC suggests that individuals can maintain a positive group identity by removing group competition through the derogation of the social status of outgroups (Esses et al., 2001), leading immigrants to be viewed as low in competence. However, as alluded to previously, certain racial and ethnic groups, such as Asian individuals, tend to elicit ambivalent stereotypes of high competence and low warmth. Indeed, there is evidence from stereotype content research which suggests stereotypes of immigrant groups differ as a function of immigrant source-country (Fiske, 2012; Lee & Fiske, 2006). However, it is unclear how these stereotypes would differ as a function of immigration status as these stereotype content models do not explicitly combine ethnic labels with *immigrant* and *Canadian* (or *American* for studies conducted in the United States) labels.

Further research on the specific stereotypes of various immigrant groups has found that stereotypes not only differentiate immigrants by ethnic and national origin (Timberlake & Williams, 2012), but also predict specific attitudes towards immigration policies (Reyna, Dobria, & Wetherell, 2013). For example, ambivalent stereotypes about Arabs being intelligent and persecuted led to support for pro-immigration policies even though only intelligence stereotypes predicted positive attitudes. In contrast, aggression stereotypes for Arabs did not predict negative attitudes towards the group, despite predicting support for anti-immigration policies (Reyna et al., 2013). This research demonstrates the importance of looking at the nuances of an immigrant's ethnic and national origin when developing an understanding of prejudice toward immigrants. Despite the field starting to focus on the intersectionality of immigrant status and ethnic or racial origin, researchers have yet to fully investigate how stereotypes of racial groups are different between immigrants and non-immigrant citizens.

1.2 Limitations of Past Research: Conflating Race with Immigrant Identity

Canada and the United States have had long histories of immigration and diversity. Despite the history of Black Americans pre-dating the founding of the United States, and large-scale Asian immigration occurring as early as 1850, being American is still, explicitly and implicitly, associated with being White (Devos & Banaji, 2005). This bias also persists within Canadian populations, as people, regardless of their racial background, associate being Canadian more with being White, compared to other races and ethnicities (Semenya, 2001).

This American/Canadian = White bias has also influenced immigration research in psychology. That is, while researchers examine how people's attitudes of immigrants vary by immigrant source-country and ethnicity, few studies have tried to disentangle whether these attitudes differ when assessing non-immigrant individuals from those groups. For instance, Reyna et al. (2013) examined whether people ascribed different traits to five different immigrant groups (i.e., Canadian, Arab, Mexican, Polish, and Chinese). It is unclear from their methodology, however, whether these groups (aside from *Canadian*) were described as *immigrant*, thus conflating ethnicity with immigration status. Additionally, while some public surveys, such as the Ohio Poll used by Timberlake and Williams (2012) explicitly use the term *immigrant* (e.g., *Asian immigrants*, *Latin American immigrants*, etc) in their public attitude research, these surveys do not contain a control condition assessing attitudes towards non-immigrant individuals from those ethnic groups. Without a proper control, it is unclear whether people's attitudes towards these groups stem from ethnic prejudices or anti-immigration sentiments.

The few works that have tried to disentangle racial stereotypes from immigrant status show mixed results. Lee and Fiske's (2006) application of the SCM to different immigrant groups, for instance, found that third-generation and documented immigrants tended to cluster with Americans in terms of perceived warmth and competence. This would suggest that immigrant status, and not simply national/ethnic origin, also influences how people are perceived. In contrast, Fiske (2012) notes that when affixed

with the immigrant's ethnic origin (e.g., third-generation Mexican), target groups tended to cluster with race and ethnicity, rather than immigrant status. Although Fiske (2012) suggests that perceptions of immigrants cluster by racial group, one limitation is that these individuals are labelled *third-generation*, which has an inherent immigrant connotation. Thus, it is unclear whether the more common convention of calling someone *<Race/Ethnicity>-American/Canadian* would elicit the same results.

1.3 Perceiver's Perspective: Common Ingroup, Dual Identity, and Stereotype Content Models

Group categorization influences how we perceive and act towards others. Although derogating outgroups can help maintain positive group identity (Tajfel & Turner, 1979), ingroup favouritism (e.g., preferring to associate with or help ingroup members without necessarily intending to harm outgroups) is at times sufficient to cause intergroup tensions (Brewer, 1979). Thus, social psychologists have attempted to reduce prejudice by changing these group dynamics through the recategorization of ingroup and outgroup boundaries (Gaertner, Dovidio, Anastasio, Bachman, & Rust, 1993; Dovidio, Gaertner, & Saguy, 2007). This recategorization can take two forms—eliciting a common ingroup identity by deemphasizing subordinate categories (e.g., *Christians* rather than *Protestants* and *Catholics*; Gaertner et al., 1993), or eliciting a dual identity that emphasizes both superordinate and subordinate categories (e.g., *African-Americans* rather than *Americans*; Dovidio et al., 2007).

To better understand how researchers have elicited common ingroup versus dual identities in laboratory settings, it is best to examine a paper that has attempted to manipulate both in tandem. Gonzáles and Brown (2006), for instance, examined how common ingroup, dual identity, and individual identity affected attitude change. In their experiment, participants came into the laboratory in groups of six and ostensibly completed a skill questionnaire where they were told that they were either *Analytic* or

Synthetic problem solvers[1]. These two groups were created as artificial subordinate group identities.

The six participants were then tasked to solve a skill-testing problem with the other participants. Those in the individual (i.e., no group identity) condition were told that the task assessed how people perform individually. Those in the common ingroup condition were told that the task assessed how students from that university perform together. In this condition, participants were asked to wear a university sweater that identified their common ingroup status. In the dual-identity condition, participants were told how well Analytic and Synthetic students at the university worked together. Both groups were given sweaters of different colours (Analytics wore green, Synthetics wore blue), but both had the university logo on them, thus eliciting both their superordinate university identity, and the subordinate identity as an *Analytic* or *Synthetic*. In short, common ingroup identities are elicited by asking participants to disregard their memberships to subgroups and emphasizing a common identity. In contrast, dual identities are elicited by emphasizing differences at the subordinate level, but maintaining that people belong to a larger group. This paradigm has been used across multiple studies to examine the role of eliciting common ingroup and dual identities on reducing prejudice.

Though both common ingroup identity and dual identity approaches have been effective in reducing prejudice, the strategy that is most effective is largely dependent on context. Dovidio et al. (2007) note that dual identity approaches may be more favourable when categories have highly visible cues, such as race, to the point that it would be difficult to completely relinquish these identities. Furthermore, cultural values may favor certain strategies over others. Esses, Wagner, Wolf, Preiser, and Wilbur (2006) examined how eliciting an inclusive national identity affected attitudes toward immigrants in Canadian and German contexts. While both countries are large immigrant-receiving

---

[1] *Analytic* problem solvers were described as those who solve problems by breaking them up into smaller sets of problems. *Synthetic* problem solvers were described as those who looked at problems broadly and applied general principles in problem solving. Both were described as equally valid ways of solving problems.

nations, Canada, compared to Germany, has a long history of multiculturalism and seeing immigrants as an integral part of their national identity (Esses et al., 2006). The researchers found that eliciting an inclusive national identity reduced prejudice in Canadian samples, but appeared to elicit threat in German samples, increasing anti-immigrant attitudes.

In the context of the stereotype content model, researchers have used both national identifiers (e.g., *American*) and ethnic labels (e.g., White, Black, Asian) but rarely combine them in tandem. As such, while the model has been used to examine intersecting categories (e.g., Gay men), this dual identity approach has not been used in the context of national and ethnic identity. Thus far, published immigrant stereotype content models have not taken advantage of dual identities, nor have they compared how affixing a national identity (e.g., Asian American) versus an immigrant identity (e.g., Asian Immigrant) affects perceptions of ethnic groups. Lee and Fiske's (2006) model, for instance, only has the national and racial/ethnic labels of immigrant groups (but not in tandem), along with other immigrant categories, such as *documented immigrants* and *third-generation*. Fiske (2012) reviews models that used the *third-generation* and *first-generation* labels in conjunction with racial/ethnic and national origin (e.g., *third-generation Mexican*). Though Fiske found that immigrant groups clustered around racial/ethnic labels[2], rather than immigrant labels[3], their model did not elicit a dual [ETHNICITY]-American identity, but instead has the implicit connotation that these individuals are national out-groups. That is, the *third-generation* label centered around ethnic immigrant identity (e.g., as descendants of Mexican immigrants) rather than emphasizing that these target groups were both *Mexican* and *American.* As such, it is not clear whether perceptions of these ethnic groups would differ if these groups were given more ingroup-affirming (in the context of national identity) labels such as *American* than if these ethnic groups were specified as immigrants (whether *first* or *third generation*).

---

[2] For example, one cluster would contain *first* and *second* generation Mexican individuals, and a distinct cluster would contain *first* and *second* generation Chinese individuals.

[3] For example, one cluster containing *first generation Mexican* and *first generation Chinese* individuals, and separate cluster containing *third generation Mexican* and *third generation Chinese* individuals.

1.4 Target's Perspective: Race, Immigration, and Bicultural Identity

1.4.1 Intraminority Intergroup Conflict

Psychological research on how targets of discrimination engage with intergroup relations focuses on their experience with discrimination and its effects on their psychosocial well-being. An extensive review of psychological well-being in immigrant populations in south and central Europe found that immigrants had a higher risk of psychosocial disorders compared to the local population (Toselli, Gualdi-Russo, Marzouk, Sundquist, & Sundquist, 2014). Furthermore, this increased risk was associated with various factors including ethnic discrimination (Toselli et al., 2014). Along with the impact on psychological well-being, discrimination also negatively affects social well-being such that immigrants feel unsafe and harbor more distrust towards the host society (Castaneda et al., 2015).

Although intraminority intergroup conflict, that is, conflict between non-dominant groups in a society, has been studied extensively in other social science disciplines, psychologists have only recently begun to examine this phenomenon (e.g., Craig & Richeson, 2012; Craig & Richeson, 2014b). In a series of studies, Craig and colleagues examined how being a target of discrimination influences whether individuals will express prejudice towards other groups. For instance, Craig, DeHart, Richeson, and Fiedorowic (2012) manipulated perceived discrimination amongst White female participants. One group read an article that talked about the socioeconomic consequences of sexism, while the other group read a control article about plagiarism. They found that women explicitly expressed more negative attitudes, and were slower to associate positive words with Black and Latino individuals. Similarly, Craig and Richeson (2014b) analyzed large-scale data sets from the General Social Survey and Pew's Asian American Survey and found that perceived discrimination related to more anti-gay attitudes in Black and Asian Americans. These findings were replicated in an in-lab experiment where perceived discrimination was manipulated in Black and Latino participants in a paradigm similar to Craig et al. (2012). That is, participants either read an article that highlighted the socioeconomic consequences of racism or an article on plagiarism. Craig

and Richeson (2014b) found that perceived discrimination related to more anti-gay attitudes in Black and Latino populations.

In contrast to the previous work, Craig and Richeson (2012) have also found instances in which perceived discrimination leads to more positive attitudes towards other groups. Specifically, they suggest that when similar groups are seen as belonging to the same dimension of identity (e.g., different racial groups), experiences of discrimination leads to more positive attitudes towards those groups. To test this, Craig and Richeson recruited Asian and Latino participants. Across five studies, they found that participants who were primed with discrimination against their own race or ethnic group were more likely to have positive attitudes towards, and perceive themselves as more similar to, Black Americans. Taken together, Craig and colleagues' research suggests that the effects of perceived discrimination on subsequent attitudes towards other groups are complex, and target-dependent. Specifically, if the target group is seen dissimilar to one's own group, perceived discrimination may lead to derogation. In contrast, when target groups are seen as similar to one's own, perceived discrimination may lead to coalition.

Though Craig and colleagues' work focused on gender, race, and sexual orientation, their findings have important implications for the study of prejudice toward immigrants. As noted earlier, researchers have often conflated racial and ethnic identity with immigrant identity. Though the two tend to be linked, not every member of a particular racial group is an immigrant. Furthermore, many of the microaggressions that some of these groups face, such as Asian Americans/Canadians, are linked with being perceived as perpetual foreigners (Sue, Bucceri, Lin, Nadal, & Torrino, 2009; Huynh, Devos, & Smalarz, 2011). Thus, individuals from these groups may be motivated to affirm their racial identities against the perpetual foreigner stereotype by distancing themselves from immigrants, the consequences of which are discussed in detail in the next section.

1.4.2   Race and Immigration Status

Conflict between racial minorities and immigrant groups has been best documented between African Americans and Latino immigrant populations due to

economic competition between the two groups (Waldinger, 1997). Though the SCM (Fiske et al., 2002) and IMGC (Esses et al., 2001) would predict that African Americans would hold less favourable attitudes towards Latino immigrants due to economic competition, the reality of the situation is more nuanced. For instance, while employers prefer to hire Latino immigrants because they perceive them to be harder workers (Waldinger, 1997), economic pressure does not necessarily lead to unfavourable attitudes toward Latino immigrants amongst Black populations (Diamond, 1998; Thornton & Mizuno, 1999). Only when immigration policy is phrased in terms of economic costs do African Americans exhibit less favourable attitudes towards immigrants and immigration in general compared to White Americans (Diamond, 1998). Though this body of work illustrates the dynamics of intraminority conflict between racial and immigrant minorities, it is unclear how these dynamics unfold for native born and immigrant individuals of the same race. Thus, this paper will focus on understanding these dynamics, particularly in the context of Asians in Canada and the United States.

Psychological research on the intergroup dynamics between native-born and immigrant Asians is limited and qualitative in nature. In an analysis of 184 interviews with Korean and Vietnamese children, Pyke and Dang (2003) found that second-generation individuals constructed identities of *fresh-off the boat* (*FOB*) and *whitewashed* as categorical extremes of acculturation. Whereas being whitewashed signifies individuals who have completely assimilated to Western society, being *FOB* denotes individuals who exhibit ethnically identifiable characteristics or behaviors. Though both these extremes are seen as pejorative identities, being whitewashed has the benefit of assimilating to one's host culture, while being FOB falls in line with pre-existing stereotypes that Asians are perpetual foreigners (Pyke & Dang, 2003; Poolokasingham, Spanierman, Kleiman, and Houshmand, 2014). As such, labeling members of your own racial group as FOB is equivalent to *othering* those individuals, as it leads to many of the same behavioral consequences such as ridicule and exclusion (Pyke & Dang, 2003).

The behavioural consequences arising from acculturation-based labeling can be understood by considering Social Identity Theory (SIT; Tajfel & Turner, 1979) and Self-Categorization Theory (SCT; Turner & Reynolds, 2011). SIT posits that people derive

their identity, in part, from their group memberships. Given that people are motivated to maintain a positive self-identity, an easy way through which this is achieved is often through outgroup derogation. Similarly, self-categorization theory posits that there are multiple levels of abstraction of identity. For instance, one's identity can exist at the personal level, the group level (e.g., Asian), the national level (e.g., Canadian), and the species level (e.g., human). In the context of racial minorities and immigration, their racial identities can be abstracted based on their level of acculturation (e.g., fresh-off the boat, whitewashed). Together, these theories explain the phenomenon noted by Pyke and Dang (2003). Though the White-dominant society has a tendency to perceive Asians as a perpetual outgroup (Devos & Banaji, 2005; Semenya, 2001), Asian individuals can view members of their group as being either *too* acculturated (i.e., whitewashed) or not acculturated enough (i.e., FOB). Pyke and Dang's findings (2003) are in line with a large-scale review on hyphenated-Americans by Deaux (2008). In her review, she notes that while observers/hosts tend to view national and immigrant identity as dichotomous, second-generation individuals develop a fluid bicultural identity that shifts based on the audience (e.g., identifying as American when with a White audience, but Asian when at home).

Given the fluidity of bicultural identity (Deaux, 2008) and the perpetual foreigner stereotype (Sue et al., 2009; Huynh, et al., 2011), it is important to examine how racial prejudice influences Asian Canadian attitudes towards immigrants. Since the concept of being *fresh off the boat* is intrinsically linked to racial and ethnic stereotypes, racial discrimination may lead Asian individuals to distance themselves from immigrants and those perceived as FOB, in order to maintain a positive self-identity. Shin (2016) provides preliminary evidence for this phenomenon through a qualitative analysis of classroom observations, written journals, and interviews of Korean-American populations. Shin's research found that in response to microaggressions against their race, second-generation Koreans tended to develop a form of internalized racism manifesting in distancing themselves from those perceived as FOB.

1.5   General Overview

Although the study of immigration is becoming more relevant in an increasingly globalized society, psychology, compared to the other social sciences, has lagged behind (Esses, Medianu, Hamilton, & Lapshina, 2015). The preceding literature review has identified several areas of attention for psychologists interested in immigration research. First, while psychologists have examined how attitudes and stereotypes of immigrants differ by national and ethnic origin, few have tried to disentangle racial stereotypes from immigrant status. Thus, it is unclear whether these stereotypes and attitudes are directed toward immigrants from that specific race or ethnic group, or if they are directed toward that racial and ethnic group in general (Study 1). Second, there is a lack of quantitative research on the intersection of race and immigrant status from the target's perspective. Though White perceivers may view racial groups as monolithic in nature, individuals from within these groups further construct their identities along lines of acculturation, leading to distinct behavioural outcomes such as avoidance and derogation (Pyke & Dang, 2003; Shin, 2016). Thus, it is important to examine whether racial discrimination leads to a unified identity within these racial groups to combat discrimination, or if it leads to further intragroup conflict (Studies 2 & 3).

Chapter 2

2 Study 1: Attitudes and Stereotypes Across Race/ Ethnicity and Immigration Status

The purpose of Study 1 was to examine how race and immigrant stereotypes intersect in the minds of perceivers. Specifically, we were interested in investigating whether stereotypes and attitudes toward specific racial groups differ as a function of target immigrant status (i.e., Canadian-born, immigrant, or not specified). To investigate this, Fiske et al.'s (2002) stereotype content model was used to investigate perceptions of competence and warmth for five target race groups (Race not specified, White European, East Asian, South Asian, and Middle Eastern) varying in immigrant status (Canadian-born, Immigrant, not specified)[4]. The racial groups were based on the most frequently encountered racial groups of Western's introductory psychology class based on the 2014 – 2015 mass testing demographics.

Though Fiske (2012) noted that perceptions clustered around ethnic/racial labels, in that research the targets were always labelled using terms that at least implicitly referred to targets being immigrants (e.g., first-generation, third-generation). Thus, Study 1 explored whether explicit affirmation of national identity (i.e., labeling targets as *Canadian-born*) leads to perceptions of increased similarity to the ingroup (i.e., Canadians) along the warmth and competence dimensions. For example, whereas Asian immigrants and Asians for whom immigrant status was not specified were predicted to cluster together in the high-competence/low warmth cluster, we expected Canadian-born Asians to be rated more similarly to the ingroup (high competence/high warmth).

In addition to the stereotype content questions, we also assessed participant attitudes toward the specific groups using a feeling thermometer in a 3 (Immigrant Status: Canadian-born, Immigrant, Not-specified) × 5 (Race: White European, East Asian, South Asian, Middle Eastern, Not Specified) design, with Immigrant Status as a between-

---

[4] Target groups that had no race or immigrant labels were identified as "Non-Canadians in general"

subject variable and Race as a within-subject variable. Immigrant status was predicted to interact with race such that perceivers' attitudes were expected to be more positive for targets labelled *Canadian-born* vs *Immigrant*.

The *not specified* immigrant status (e.g., East Asians in general) was included to explore whether default attitudes and stereotypes towards specific racial groups differed from people's attitudes towards immigrants from that group.

2.1 Methods[5]

2.1.1 Participants

Canadian-born undergraduates in an introductory psychology course were recruited for a study "assessing how people perceive others" ($N = 498$) and compensated with course credit. One participant asked to be removed from the study and was left out of the analysis, leaving a final sample of $N = 497$ (329 female) participants, $17 - 37$ years of age ($M_{age} = 18.39$, $SD_{age} = 1.51$). Of the total sample, 71.89% identified as White/European, 11.24% Chinese, 10.04% South Asian, and the rest of various other racial and ethnic groups. Approximately 9.24% of the participants identified as belonging to two or more racial or ethnic groups.

2.1.2 Materials & Procedure

Participants came into the lab and were given generic instructions that they would be completing "a series of surveys assessing their opinions and attitudes on a variety of issues" before being given the Letter of Consent to sign (see Appendix B). Before participants began the study, they were told that they could skip questions and end the study at any time if they did not wish to proceed with the study. The survey was completed entirely on a computer in groups of $1 - 4$ and took approximately $40 - 60$ minutes to complete.

---

[5] The ethics approval form for this study can be found in Appendix A

Participants were asked to evaluate five of fifteen target groups on a computerized questionnaire. The five target groups were racially/ethnically identified as *White European*, *East Asian*, *South Asian*, *Middle Eastern* or the target race/ethnicity was not specified. Each of these target groups were randomly assigned an immigrant status: *Canadian-born* (e.g., "Canadian-born White Europeans"), *Immigrant* (e.g., "White European Immigrants"), or their immigrant status was not specified (e.g., "White Europeans in general"). The three groups that did not have a race label were designated as *Canadians in general*, *Immigrants in general*, and *Non-Canadians in general*. For East and South Asian targets, participants were given specific examples to disambiguate what constituted East and South Asians, respectively. Details can be found in Appendix B.

For each group, participants were asked to assess how they thought society in general perceived the group along dimensions of competence and warmth. Specifically, participants were asked "As viewed by society, how _____ are members of this group?" on a 5-point Likert scale (1 = Not at all, 5 = Extremely). The competence dimension included traits like: competent, confident, capable, and skillful. The warmth dimension included traits like: friendly, warm, good-natured, sincere. The questions were taken from Cuddy et al. (2009), as these questions were used previously in a cross-culturally representative sample. After completing the stereotype content questions, participants were asked to assess their attitudes towards the target group using a feeling thermometer from 0 to 100, with higher numbers indicating more positive attitudes. Full questionnaires can also be found in Appendix B.

2.2 Results

2.2.1 Stereotype Content Model

Average ratings of competence and warmth were calculated for each group, and the average scores for each group were mapped onto the stereotype content model. *k*-means clustering was used to generate the final clusters. Consistent with Fiske et al.'s (2002)
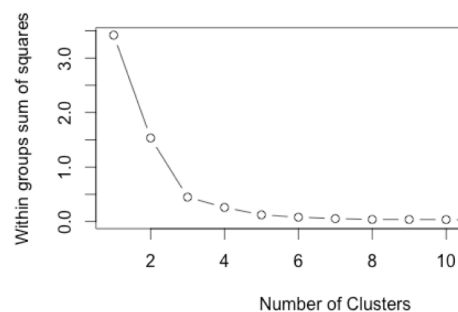
Figure 1: Within-group sum of squares plotted against number of clusters

methodology, we initially screened the model for outliers. Grubbs test for outliers (Grubbs, 1969) [6] found that the group Canadians in general was perceived to be significantly warmer compared to all other groups, $G = 2.70710$, $U = 0.43916$, $p < 0.01$, and was removed from the cluster analysis as per Fiske et al.'s original procedure.

The *k*-means clustering procedure requires that the number of clusters be specified beforehand. Since *k*-means clustering aims to minimize the within-group sum of squares (WSS) with the smallest number of clusters, plotting the WSS against the number of clusters in a *k*-means solution can be used to determine the optimal number of clusters[7], similar to a scree plot for factor analysis. The WSS plot revealed that a 3-cluster solution optimally minimized the WSS squares (Figure 1). The *k*-means clustering revealed 3 clusters with White Europeans in one cluster, East Asians in another, and South Asians, Middle Easterners, Immigrants, and Non-Canadians in the final cluster (Figure 2).
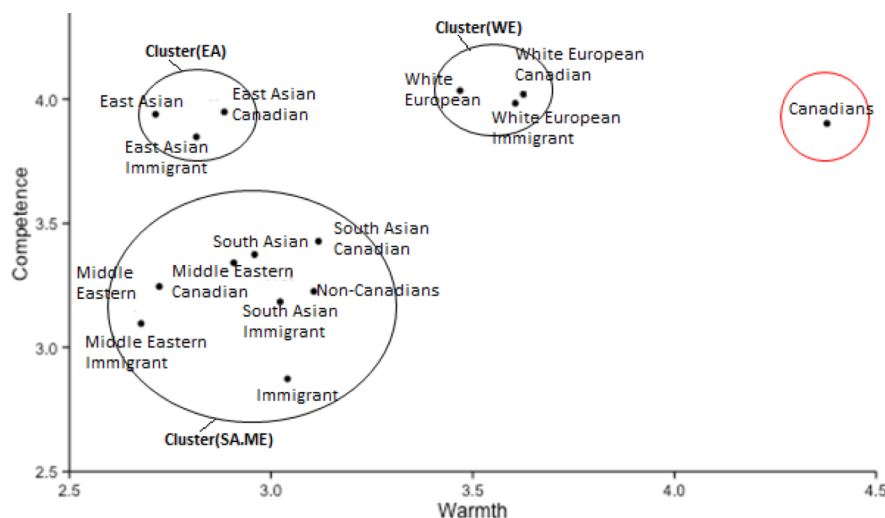
Figure 2: Stereotype Content Model
The 15 target groups varying on immigrant status (*Canadian born, Immigrant, Not Specified*) and race (*White European, East Asian, South Asian, Middle Eastern, Not Specified*) mapped along perceived competence and warmth. Clusters: East Asian (EA), South Asian and Middle East (SA.ME), White European (WE)

---

[6] Fiske et al. (2002) used the ±3 SD rule to detect outliers, which can fail to detect extreme outliers in small sample sizes. The Grubbs test was used because it is less influenced by outliers.

[7] Fiske et al. (2002) used a two-step procedure, using hierarchical clustering to determine the number of clusters. The number can often change based on where one chooses to cut the dendogram (in this data set, 3 – 4 clusters). Plotting the WSS against number of clusters was utilized as it provided a less ambiguous means of deciding the number of clusters.

2.2.2   Cluster Structure

2.2.2.1   Between-Cluster Differences in Warmth and Competence

Due to the small number of total observations ($n = 15$) and unequal cluster sizes ($N_{WE} = 3$, $N_{EA} = 3$, $N_{SA.ME} = 8$), between-cluster differences were analyzed at the participant rating as the level of observation rather than the at the level of the target groups. A new "cluster" variable was created and a one-way ANOVA conducted with cluster as a predictor of participants' ratings of warmth and competence. Since "Canadians in general" were not part of the cluster analysis, ratings for this group were removed from the data set resulting in a sample of $N = 2319$ observations.

Table 1. Tukey's HSD for Warmth and Competence ratings between clusters

		95% CI		
Comparison	M_D	Upper	Lower	p_{adj}
Competence				
Cluster(WE) – Cluster (EA)	0.10	0.20	0.00	.050
Cluster(WE) – Cluster (SA.ME)	0.79	0.88	0.71	< .001
Cluster(EA) – Cluster (SA.ME)	0.69	0.78	0.61	< .001
Warmth				
Cluster(WE) – Cluster (EA)	0.76	0.88	0.65	< .001
Cluster(WE) – Cluster (SA.ME)	0.62	0.72	0.53	< .001
Cluster(SA.ME) – Cluster (EA)	-0.14	0.23	0.05	.001

The target's cluster significantly predicted both perceived warmth, $F(2, 2316) = 152.5$, $p < .001$, and competence, $F(2, 2316) = 343.5$, $p < .001$. Tukey's HSD was conducted to examine the differences between clusters, and the results are summarized in Table 1. Groups from Cluster(WE) were perceived more positively in terms of competence and warmth compared to groups from any other cluster. Additionally, Cluster(EA) groups were rated as more competent but less warm than Cluster(SA.ME).

2.2.3   Within-Cluster Differences between Warmth and Competence

Past analyses based on the stereotype content model used the aggregate scores of the target groups as the level of observation. However, due to the small number of target groups within each cluster ($N = 3$ to 8 groups), we investigated warmth and competence

scores at the participant level, rather than the group level, for each of the groups. The data were subset into the 15 different target groups consisting of $N \geq 165$ participants each, and a paired-samples t-test was conducted to investigate the difference in warmth and competence ratings (a summary of the descriptive and inferential statistics can be found in *Table 2*). Due to multiple testing, *p* values were adjusted using the Holm-Bonferroni method (Holm, 1979; Gaetano, 2013) to control the family-wise error rate. All clusters showed ambivalence at $p_{adj} < .05$, which was measured by assessing whether ratings of warmth and competence significantly differed. Given the large sample size for a *t*-test, however, one should pay more attention to the effect size of the difference since large samples make it easy to detect small effects at $p < .05$.

Table 2. Pairwise Comparisons examining difference between Competence (C) and Warmth (W) ratings of the 15 target groups

	C	W	C – W	Inferential Statistics			
Cluster	*M (SD)*	*M (SD)*	*M (SD)*[a]	*t*	*df*	p_{adj}[b]	*d*
Canadians in general	3.90(0.51)	4.38(0.64)	-0.48 (0.65)	9.43	165	< .001	-0.73
White European (WE)							
WE Canadians	4.02(0.51)	3.63(0.65)	0.39(0.68)	-7.43	164	< .001	0.58
WE immigrants	3.98(0.51)	3.61(0.61)	0.38(0.62)	7.85	165	< .001	0.61
WE in general	4.03(0.68)	3.47(0.68)	0.57(0.73)	9.93	165	< .001	0.77
East Asian (EA)							
EA Canadians	3.95(0.64)	2.88(0.78)	1.06(0.88)	-15.58	165	< .001	1.21
EA immigrants	3.85(0.69)	2.81(0.78)	1.03(0.93)	14.33	165	< .001	1.11
EA in general	3.94(0.68)	2.71(0.72)	1.23(0.91)	17.32	164	< .001	1.35
South Asian (SA) & Middle Eastern (ME)							
Immigrants in general	2.87(.074)	3.04(0.73)	-0.17(0.7)	-3.09	165	.009	-0.24
Non-Canadians	3.23(0.67)	3.11(6.68)	0.12(0.67)	2.29	164	.039	0.18
ME Canadians	3.34(0.69)	2.91(0.88)	0.43(0.82)	6.76	164	.001	0.53
ME immigrants	3.10(0.68)	2.68(0.78)	0.42(0.72)	7.50	165	< .001	0.58
ME in general	3.25(0.70)	2.72(0.81)	0.52(0.76)	8.85	165	< .001	0.69
SA Canadians	3.43(0.68)	3.12(0.71)	0.31(0.76)	-5.27	165	.012	0.41
SA immigrants	3.18(0.75)	3.02(0.85)	0.16(0.16)	2.36	165	.039	0.18
SA in general	3.37(0.77)	2.96(0.80)	0.42(0.80)	6.64	164	.001	0.52

a. SD_{C-W} was calculated as the standard deviation of the mean difference, not $SD_C - SD_C$

b. The p-values were adjusted using the Holm-Bonferroni method, a uniformly more powerful method than Bonferroni correction to control family-wise error (Holm, 1979). Adjusted *p*-values were calculated using the Holm-Bonferroni calculator developed by Gaetano (2013).

Consistent with past findings (Fiske et al., 2002; Lee & Fiske, 2006; Cuddy et al., 2007), the East Asian cluster, Cluster(EA), showed the greatest ambivalence ($|d| = 1.11 - 1.35$), with participants rating the groups in this cluster as highly competent but low in warmth. Whereas Cluster(SA.ME) also showed ambivalent stereotypes, the absolute magnitude of ambivalence ranges from small to moderate effects ($|d| = 0.18 -0.69$). Because the difference between competence and warmth was relatively small for Cluster(SA.ME) and ratings of both competence and warmth were quite low, this cluster can be characterized as the low-competence/low-warmth cluster. Although the White European cluster could be characterized as the "ingroup" cluster with relatively high competence and high warmth, we found that Cluster(WE) was rated moderately more competent than they were warm ($|d| = 0.58 - 0.77$). Interestingly, the *Canadians in general* group, as noted earlier, was an outlier with significantly higher ratings on warmth. Though Cluster(WE) had similar ratings of competence to the *Canadians in general*, the latter was seen as moderately more warm than competent ($|d| = 0.73$).

2.2.4 Attitudes Towards Target Groups

Attitudes toward the groups were measured using a feeling thermometer. A 3(Immigrant Status: Canadian-born, Immigrant, Not Specified) × 5(Race/Ethnicity: White European, East Asian, South Asian, Middle Eastern, Not Specified) ANOVA was conducted with immigrant status as between and race as within-subject variables (see *Table 3* for descriptive statistics).

Table 3. Mean (Standard Deviation) of people's attitudes towards 15 target groups varying along dimensions of immigration status and race.

Immigrant Status Label	**Race and Ethnicity Labels**				
	Not Specified[a]	White European	East Asian	South Asian	Middle Eastern
Canadian-born	88.39[b] (10.34)	80.71 (14.20)	72.08 (18.46)	70.91 (18.41)	68.76 (21.17)
Immigrants	70.07 (18.37)	77.77 (15.37)	66.20 (20.61)	65.04 (19.54)	64.96 (20.53)
Not Specified[a]	69.62 (18.39)	78.66 (14.27)	63.90 (21.10)	65.84 (21.77)	64.59 (18.99)

a. Targets whose immigrant status was not specified were labelled as *race/ethnic group in general* (e.g., *White Europeans in general*). The group with no specified immigrant status or race/ethnic label was identified as "Non-Canadians in general"
b. Measured on a 100-point feeling thermometer

The ANOVA revealed a main effect of both the target's immigrant status, $F(2, 2465) = 46.19$, $p < .001$, and race, $F(4, 2465) = 14.25$, $p < .001$, on people's attitudes towards the groups. Furthermore, there was a significant interaction between the target's immigrant status and race, $F(8, 2465) = 6.91$, $p < .001$. Pairwise comparisons were conducted to investigate the specific effects of race, immigrant status, and their interaction on people's attitudes towards the fifteen target groups. The p-values were adjusted using the Holm-Bonferroni correction method to adjust for the inflation of familywise error rate. Overall, 28 comparisons were made, and are summarized in Table 4 – 6.

2.2.4.1   Immigrant Status

Table 4. Pairwise comparison of people's attitudes towards target groups for the main effects of immigrant status.

.

Immigrant Status	t	df^a	p_{adj}^b	d
Canadian – Immigrant*	7.90	1650.77	< .001	0.39
Canadian – Non-Canadian*	8.13	1644.34	< .001	0.40
Immigrant – Non-Canadian	0.29	1654.56	1.00	0.01

Pairwise comparisons using Welch's t-test[8] was used to examine differences between the three immigrant statuses in each racial/ethnic group. Groups labelled "Canadian born" were perceived more positively compared to groups labelled "immigrant", $t(1650.77) = 7.90$, $p_{adj} < .001$, $d = 0.39$, and those that had no immigrant label, $t(1655.34) = 8.13$, $p_{adj} < .001$, $d = 0.41$. There was no significant difference in people's attitudes toward the groups labelled immigrants and those whose immigrant status was not specified, $t(1654.56) = 0.29$, $p_{adj} = 1.00$.

2.2.4.2   Race/Ethnicity

Pairwise comparisons between the five race/ethnicity labels (Not Specified, White European, East Asian, South Asian, Middle Eastern) found that people's attitudes towards groups labelled White Europeans as most positive compared to all other race

---

[8] Welch's t-test is an alternative to Student's t-test for data with unequal sample sizes and variances. Welch's t-test performs better than Student's t-test under these conditions, and performs equally well when sample sizes and variances are equal (Delacre, Lakens, & Leys, 2017). Degrees of freedom are adjusted for Welch's t-test and may take on decimal values.

labels at $p_{adj} < .05$. This was followed by groups that had no explicit labels, such that target groups with no race labels were perceived more positively compared to all other groups given race labels, except for White Europeans at $p_{adj} < .05$. There was no significant difference in the effects of the other race labels on people's perceptions of the target groups.

Table 5. Pairwise comparison of people's attitudes towards target groups for the main effect of race/ethnicity.

Race/Ethnicity	t	df[a]	p_{adj}[b]	d
Not Specified –				
White European*	-3.26	496	.020	-0.29
East Asian*	9.76	496	< .001	0.88
South Asian*	10.84	496	< .001	0.97
Middle Eastern*	11.82	496	< .001	1.06
White European –				
East Asian*	12.28	496	< .001	1.10
South Asian*	12.32	496	< .001	1.11
Middle Eastern*	13.65	496	< .001	1.23
East Asian –				
South Asian	0.17	496	1.000	0.02
Middle Eastern	1.48	496	1.000	0.13
South Asian –				
Middle Eastern	1.68	496	1.000	0.15

2.2.4.3 Immigrant Status and Race/Ethnicity Interaction

Race labels were found to moderate the effects of immigrant status on people's attitudes towards the target groups. Whereas people tended to view Canadian-born individuals in general more positively than Immigrants in general, $t(260.07) = 11.20$, $p_{adj} < .001$, $d = 1.39$, and Non-Canadians in general, $t(257.98) = 11.44$, $p_{adj} < .001$, $d = 1.42$, this difference disappeared when target groups were identified by race. That is, regardless of whether a target group was identified as Canadian-born, immigrant, or no label, there was no significant difference in people's attitudes as a function of immigrant status as long as a race label was present. The only exception to this were people's attitudes towards East Asians, which were more nuanced. Specifically, while there were no significant differences in people's attitudes towards Canadian-born East Asians and

Immigrant East Asians, $t(326.08) = 2.74$, $p_{adj} = .098$, $d = 0.30$, people's attitudes towards

Canadian-born East Asians were more positive than East Asians in general, $t(322.80) =$

3.75, $p_{adj} = .004$, $d = 0.42$

Table 6. Pairwise comparison for the Race/Ethnicity and Immigrant Status Interaction

Immigrant X Race Interaction	t	df	p_{adj}	d
Not Specified				
CDN – IMM*	11.20	260.07	< .001	1.39
CDN – nCDN*	11.44	257.97	< .001	1.42
IMM– nCND	0.22	328.98	1.000	0.02
White European				
CDN – IMM	1.81	327.26	0.847	0.20
CDN – No label	1.31	322.80	1.000	0.15
IMM – No label	-0.55	328.20	1.000	-0.06
East Asian				
CDN – IMM	2.74	326.08	0.098	0.30
CDN – No label*	3.75	322.80	0.004	0.42
IMM – No label	1.00	328.72	1.000	0.11
South Asian				
CDN – IMM	2.82	328.83	0.082	0.31
CDN – No label	2.29	319.54	0.321	0.26
IMM – No label	-0.35	324.82	1.000	-0.03
Middle Eastern				
CDN – IMM	1.66	328.56	1.000	0.18
CDN – No label	1.89	324.77	0.780	0.21
CDNt – No label	0.17	328.02	1.000	0.02

Note. CDN = Canadian, IMM = Immigrant, nCDN = non-Canadian

2.3 Discussion

In short, Study 1 found that people's attitudes and stereotypes towards target groups clustered around race and ethnicity, rather than immigration status. That is, target groups with the same race/ethnicity label were seen more similar than target groups with the same immigrant status label. Consistent with previous stereotype content model research (e.g., Cuddy et al., 2010, Lee & Fiske, 2006) White Europeans (which consisted of approximately 70% of our sample's ingroup) were rated as uniformly high in warmth and competence. Similarly, ambivalent stereotypes manifested for East Asians, who were seen as highly competent, but low in warmth. This is consistent with what would be

predicted from the stereotype content model, especially given Canada's immigration policy and patterns of immigration. That is, Canada's preference for recruiting highly skilled immigrants (IRCC, 2015) in concert with a large portion of immigrants coming from Asian countries (Maheux & Houle, 2016) results in a selective sample of highly skilled and educated immigrants from Asian countries (Ewoudo, 2011)[9]. As such, there is a highly salient example of skilled immigrants of Asian descent (high in competence) who compete in the job market (low in warmth) with local White populations.

What is interesting about these findings, however, is that this ambivalent high competence/low warmth scenario is found only in East Asian samples. South Asians, on the other hand, were seen as relatively lower in competence and warmth, clustering with other groups like immigrants, non-Canadians, and Middle Easterners. Though research on Asian stereotypes and the model minority encapsulates both South and East Asians (e.g., Cheryan & Bodenhausen, 2011; Inman, Tummala-Narra, Kaduvettoor-Davidson, Alvarez, & Yeh, 2015) our model suggests that at least in Canada, not all Asians are seen in the same light. It is unclear, however, whether these results are due to country-level differences in Canada or if they are due to other factors. For instance, Semenya (2001) found that Chinese individuals were seen as most representative of Canadians after White individuals. Thus, South Asians (along with people from the Middle East) may cluster with "non-Canadians" because they are seen as less representative of Canada. Alternatively, this clustering of South Asians with people from the Middle East may reflect the racialization of Islamophobia (Garner & Selod, 2014), which has led to conflating Muslim and non-Muslim South Asians (e.g., as targets of hate crimes; Milligan, 2013). Thus, future research would benefit from further examining people's mental representations of what they consider to be a prototypical Canadian and non-Canadian, and how these representations match with the stereotype content model.

With regards to people's attitudes towards these target groups, Study 1 found that affixing racial or ethnic labels onto the *Canadian-born* label resulted in less positive

---

[9] It should be noted that most immigrants, regardless of country of origin, were over-educated according to this report.

attitudes towards these groups. Specifically, while there were large differences between people's attitudes towards Canadians versus immigrants and non-Canadians, these differences largely diminished when a race or ethnicity label was attached. That is, there were no differences between attitudes towards Canadians, immigrants, or non-immigrants within each ethnic group, with the exception of East Asian Canadians, in which people held more positive attitudes towards relative to East Asian immigrants (but not East Asians overall). Though people generally had more positive attitudes towards White Europeans overall regardless of immigration status, the results showed that people generally had more positive attitudes towards *Canadians in general*, both in terms of warmth ratings on the stereotype content model, and people's attitudes on the feeling thermometer. Given that no ethnic group clustered with *Canadians in general*, people's concept of what a prototypical Canadian might be may not be as strongly linked to being of White European descent. It has been over 15 years since Semenya's (2001) research, thus it is possible that over time, what it means to be Canadian may not have strong linkages to ethnic identity.

Chapter 3

3   Study 2: Experiences with Discrimination and Attitudes Towards Immigration (Pew Research Survey)

Emerging research in the social psychology of intergroup relations is how experiences of discrimination subsequently affects a person's expressions of prejudice towards other groups. In a series of studies Craig and colleagues found that how experiences of discrimination affect intergroup dynamics largely depends on context. Specifically, while experiences of discrimination leads to greater expressions of prejudice to dissimilar groups (Craig et al., 2012; Craig & Richeson, 2014b), it can also facilitate positive attitudes to groups that are perceived to be similar (Craig & Richeson, 2012). For instance, Black and Asian indivdiuals who were primed with discrimination against their own ethnic group expressed more anti-gay prejudice relative to those who were not primed with this information (Craig & Richeson, 2014b). In contrast, when Latino and Asian individuals were exposed to the same primes, they perceived themselves as more similar to, and expressed more positive attitudes towards Black individuals (Craig & Richeson, 2012).

Though extant research suggests that being an immigrant is racialized (e.g., Devos & Banaji, 2005; Semenya, 2001) – that is being American or Canadian is tied to being White – it is unclear how experiences of discrimination affects people's attitudes towards immigrants. While there is some research on how racial minorities perceive immigrants, this work has focused on racial groups (e.g., Black Americans) that stigmatized as perpetual foreigners. Qualitative research on second generation Asian Americans and Canadians suggest that Asian individuals not only differentiate themselves based on their level of acculturation (e.g., being "whitewashed" or "fresh-off-the-boat"), but that experiences of discrimination influences their attitudes towards immigrants. For instance, in response to racial microaggressions, Shin (2016) found that some Korean American students internalized these forms of racism and subsequently distanced themselves from other Koreans they perceived to "FOB". Thus, while Craig and colleague's work suggests that sharing a common identity leads to more positive attitudes, it appears that this

dynamic does not play out similarly when it comes to racial or ethnic discrimination against Asians and their attitudes towards immigrants. As such, the purpose of Study 2 is to examine whether experiences of racial or ethnic discrimination leads to more negative attitudes towards immigrants amongst non-immigrant Asians. Since immigrants come all over the globe, not all immigrants share the same ethnic identity as these non-immigrant minority individuals. Thus it is important to understand how racial and ethnic discrimination affects non-immigrant racial and ethnic minority's attitudes towards immigrants.

The Pew Research Center's (2012) Asian American Survey was used to test the hypothesis that experiencing discrimination against one's race/ethnicity elicits negative attitudes towards immigrants. The survey consists of a representative sample of both American-born and immigrant Asian-Americans from various ethnic backgrounds, with questions assessing their experiences with discrimination and attitudes towards immigrants. Consistent with past research on intraminority intergroup relations (Craig et al., 2012; Craig & Richeson, 2014b) and qualitative research on immigrant identity (Pyke & Dang, 2003; Shin, 2016) we predicted that American-born Asians who reported experiencing racial discrimination would express less favorable attitudes toward immigrants.

3.1 Methods

3.1.1 Data and Sampling

The 2012 Asian American Survey from the Pew Research Centre was used for analysis. The survey included 3,511 Asian American (1,697 M; 1,814 F) participants over 18 years of age. Complex sampling (rather than random sampling) was used in order to maintain an ethnically representative sample of Asian Americans from all 50 states in the United States. The final sample consisted of 728 Chinese, 580 Indian, 508 Japanese, 504 Filipino, 504 Korean, 504 Vietnamese, and 176 other Asian participants. Of those participants, 2,684 were foreign born and 815 were native-born. Specific details on the complex sampling design can be found on the Pew Research Centre's (2012) *The Rise of Asian Americans* publication of this data set. This data set was chosen because measures

in the survey were previously used to investigate the effects of discrimination on intraminority intergroup relations (Craig & Richeson, 2014).[10]

3.1.2   Variables for Analysis

3.1.2.1   Demographic Variables

Due to the complex sampling methods, the participant's country of birth was included in the analysis rather than limiting the sample to U.S. born participants, so as to not affect the survey weights. This variable was coded 0 = foreign-born and 1 = born in the United States.

3.1.2.2   Discrimination against race/ethnic identity

Consistent with Craig and Richeson (2014), we used two questions to assess people's belief that discrimination against one's racial/ethnic group is a prevalent issue (group discrimination - GD) and their perceived personal discrimination over the last 12 months (personal discrimination - PD). The GD measure asked participants "In general, do you think discrimination against [TARGET ETHNICITY] – Americans is a major problem, minor problem, or not a problem?" (0 = not a problem, 1 = minor problem, 2 = major problem)[11].The PD measure asked participants "During the past twelve months, have you personally experienced discrimination or been treated unfairly because you are [TARGET ETHNICITY] – American, or not?" (0 = No, 1 = Yes)[12].

3.1.2.3   Attitudes towards immigrants

Attitudes towards immigrants (AI) were assessed through the following statements: "Immigrants today are a burden on the U.S. because they take jobs, housing and health care" (anti-immigrant) and "Immigrants today strengthen the U.S. because of their hard work and talents" (pro-immigrant). Participants read the statements aloud and were asked to indicate which of the two statements came closer to their views. The anti-

---

[10] License to use the Pew Research Data for research purposes can be found in Appendix C

[11] Original data set had it coded 1, 2, 3, respectively. Recoded to 0 – 2 for ease of interpretation

[12] Originally coded 1 = yes; 2 = no; recoded for convenience in interpretation.

immigrant statement was coded "0" and the pro-immigrant statement was coded "1" in the analysis.

3.2 Results

The data were analyzed using logistic regression with attitudes towards immigrants (AI) as the outcome variable. Because data were collected using a complex survey design, we had to take into account sampling and replicate weights. In order to do so, we used a specialized r-package "survey" which allowed for regression analysis using complex sampling design. Country of origin was used as a moderator of the two predictor variables, and the focus of the analysis is on the country of origin $\times$ GD and country of origin $\times$ PD interactions. The fully specified model can be found in Appendix D.

Consistent with previous qualitative research (e.g., Pyke & Dang, 2003; Shin, 2016), experiencing discrimination based on ethnicity/race (i.e., PD) was associated with more negative attitudes toward immigrants $b = -0.36$, $SE = 0.04$, $t(3018) = -8.91$, $p < .001$. Specifically, American-born Asian participants were almost 1.8 times less likely to say that immigration was good when they reported experiencing discrimination relative to those who did not ($OR = 0.56$). In contrast, Asian immigrant participants were almost as likely to say that immigration was good regardless of their experience with discrimination in the past 12 months ($OR = 0.92$).

In contrast, belief that group-based discrimination against one's race/ethnic group is still a prevalent issue (GD) predicted more positive attitudes towards immigrants, $b = 0.31$, $t(3018) = 12.31$, $SE = 0.03$, $p < .001$. Specifically, Asian participants who were born in the United States were over 2.5 times as likely to say immigration is good when they thought that group discrimination was a minor or major problem, compared to those who did not ($OR = 2.67$). This effect was attenuated for Asian immigrant participants, who were only approximately twice as likely to say immigration was good when they thought group discrimination was a minor or major problem ($OR = 1.89$).

Due to the disparate effects of GD and PD on attitudes toward immigrants, an exploratory analysis was conducted to investigate the interaction between the two variables for U.S. born versus foreign born participants. The fully specified model revealed a 3-way interaction between (see *Figure 3*) GD, PD, and participants' country of origin, $b = 1.12$, $SE = 0.05$, $t(3018) = 20.40$, $p < .001$. That is, American-born Asian participants were nine times less likely to say immigration was good when experiencing discrimination relative to those who did not, when they believed group-based discrimination was not a prevalent issue ($OR = 0.11$). In contrast, American-born Asian participants who reported experiences of discrimination were more than half as likely to say immigration was good compared to those who did not when they believed discrimination was a minor issue ($OR = 0.66$). Lastly, for those who believed that group-based discrimination was a major issue, participants were slightly more likely to say immigration was good when they report experiences of discrimination relative to those who do not report these experiences ($OR = 1.17$). These findings suggest that while experiences of discrimination are related to more anti-immigrant attitudes amongst American-born Asians, the effects of these experiences are attenuated by people's belief that group-based discrimination is a prominent issue.

These effects appear to be reversed for Asian immigrants. That is, Asian immigrants who believed group-based discrimination was not an issue were only slightly more likely to say immigration is good when they reported experiences of discrimination compared to those with no such experiences ($OR = 1.23$). Amongst those who believe group-based discrimination was a minor issue, Asian immigrants were just as likely to say immigration was good regardless of their experiences with discrimination ($OR = 0.94$). Lastly, amongst those who believed group-based discrimination was a prominent issue, Asian immigrants were almost half as likely to say immigration was good when they reported experiences of discrimination relative to those who did not report such experiences ($OR = 0.66$).
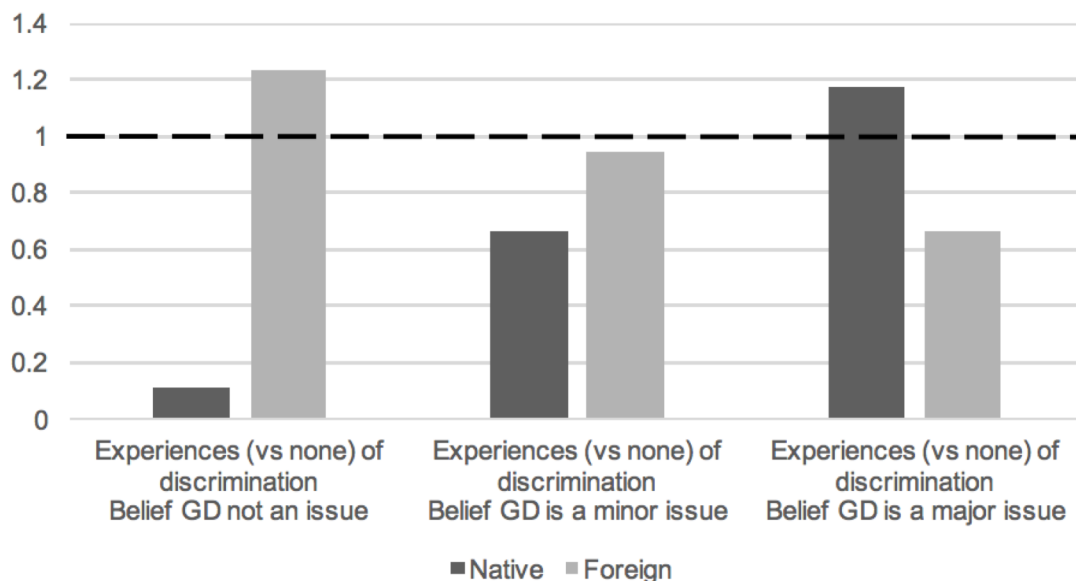
Figure 3: Odds Ratio of 3-way interaction between belief in group-based discrimination, personal experiences with discrimination, and birth country on attitudes towards immigration. Odds ratio *OR* = 1 (dashed line) indicates equal likelihood participant will say immigration is good (versus bad) given the parameters. OR > 1 indicates greater likelihood to say immigration is good, while OR < 1 indicates greater likelihood to say immigration is bad given the parameters.

3.3 Discussion

In terms of personal prejudice, our results were consistent with past literature. US born individuals who reported that they were discriminated against based on their race/ethnicity were more likely to express negative attitudes towards immigrants. This is in line with qualitative accounts by Pyke and Dang (2003) and Shin (2016), who found second-generation Asian Americans distanced themselves from immigrants when feeling racially excluded. Thus, rather than feeling commonality with the outgroup as suggested by Craig and Richeson (2014), who found personal discrimination to predict favourable attitudes towards homosexuals, U.S. born Asians appear to distance themselves by expressing less favourable attitudes towards immigrants. This may be due to the unique dynamics between Asians and immigrants compared to Asians and homosexuals. While Asian Americans can also be homosexual, the predominant Asian stereotype does not pertain to their sexuality, but instead to their immigrant status. As such, native-born

Asian Americans may distance themselves from immigrants to reaffirm their American identity.

Similar to personal discrimination, the effects of group discrimination also differed between the current results and those of past research for American-born Asians. Craig and Richeson (2014) found that participants who believed group-based discrimination was an issue were more likely to harbor unfavourable attitudes towards homosexuals. In contrast, our results indicate that believing group-based discrimination was an issue led to more positive attitudes towards immigrants amongst American-born Asians. However, these results also revealed an interesting finding in which Asian immigrants who experienced discrimination became less likely to express positive attitudes towards immigrants the more they believed group-based discrimination was a prevalent issue.

These disparate results may be explained using the group position model (Bobo & Hutchings, 1996) and the concept of linked fate (McClain et al., 2006). Sociological research on group conflict suggests that social groups form social hierarchies, and hostility towards other groups occur because they are seen as threats and competition towards social resources and status (Bobo & Hutchings, 1996). Thus, Asian Americans who believe group-based discrimination is an issue may show less favourable attitudes towards other groups, such as homosexuals, because they are concerned with maintaining their group's status in the current social order. This may explain the counter-intuitive results amongst Asian immigrants. That is, since they feel discriminated against and believe group-based discrimination is an issue, Asian immigrants may derogate other immigrants to elevate themselves and their group status in the social hierarchy.

The group position model alone, however, is not able to explain why native-born Asian Americans who believe group-based discrimination is an issue do not exhibit less favourable attitudes towards immigrants. Instead, the concept of linked fates (i.e., what happens to one group directly affects the other) may shed light on these findings. Linked fate was investigated within the Latino population in McClain et al. (2006). In their study, they found that Latino immigrants expressed more negative attitudes towards

Black Americans, but this effect was attenuated when Latinos perceived a linked fate between themselves and other groups. That is, when Latinos saw their group's outcomes to be linked to how Black Americans were treated, they were less likely to express anti-Black attitudes. Thus, the opposite effects of believing that group-based discrimination against one's ethnic group is a prevalent issue may be moderated by one's perceptions of linked fate with other groups. Given the saliency of race and ethnicity, it may be easier to perceive a linked fate between immigrant and non-immigrant individuals of the same ethnicity, than it is to perceive to perceive the fates of disparate immigrant groups to be linked. This is in line with our findings for Study 1, which showed that people perceived individuals from the same race/ethnic group as more similar than they did for people of the same immigrant status.

Though these findings are interesting, due to the correlational nature of the analysis, one cannot directly say that experiences of discrimination lead to anti-immigrant prejudice. It may be that those who hold anti-immigrant attitudes are more likely to recall past experiences of discrimination, especially when those instances involve being perceived as a perpetual foreigner. Additionally, there may be underlying personality variables that result in American-born Asians that lead to a spurious correlation between belief that discrimination is a prevalent issue and anti-immigrant attitudes. Given these limitations, it is important to conduct experimental studies to allow for causal inferences.

Chapter 4

4 Study 3: Experiences with Discrimination and Attitudes Towards Immigrants (In-Lab Experiment)

In Study 1, we found evidence to suggest that people's perceptions and attitudes towards target individuals clustered around racial, and not immigrant, identity. That is, people viewed target groups more similarly in terms of perceived warmth and competence if they were identified as belonging to the same race, irrespective of whether they were identified as Canadian versus immigrant. Study 2 focused on the perceptions held by ethnic minority individuals (in particular, Asian Americans) and how their experiences shape attitudes towards immigrants. In particular, Asian Americans who reported experiences of discrimination had more negative attitudes towards immigrants. This effect, however, was moderated by perceptions that discrimination against their ethnic group was a prominent issue such that experiences of discrimination predicted positive attitudes towards immigrants amongst these individuals.

The purpose of Study 3 was to extend these findings and experimentally manipulate perceived experiences with discrimination, as well as explore how these experiences affect perceived similarity with immigrants and attitudes towards immigrants and immigration policy. Our hypotheses are as follows:

Hypothesis 1 (Similarity): Recalling personal experiences of discrimination will lead to Asian Canadians viewing themselves as less similar (in terms of perceived warmth, competence, and in general) to recent immigrants of their own ethnic group. This effect is expected to be moderated by perceived prevalence of group-based discrimination, such that individuals who perceive group-based discrimination to be an issue will see themselves as more similar to recent immigrants of their own ethnic group.

Hypothesis 2 (Attitudes towards immigrants): Recalling personal experiences of discrimination will lead Asian Canadians to have more negative attitudes towards immigrants of their own ethnic group, immigrants in general, as well as lower support for immigration policy. This effect is hypothesized to be moderated by perceived prevalence

of group-based discrimination. That is, individuals who believe group-based discrimination to be prevalent would have more positive attitudes towards immigrants and immigration policy when recalling instances of discrimination.

4.1 Methods

4.1.1 Participants

Participants were recruited from Western's undergraduate psychology participant pool who indicated they were of Asian Canadian descent and were born in Canada or arrived in Canada before 10 years of age[13]. Participants were recruited using an online advertisement stating that researchers were "investigating experiences of Asian Canadians" with no reference to racism or ethnic discrimination. A total of $n = 140$ participants were recruited. Of these participants, $n = 3$ were removed because they were not born in Canada and arrived after the age of 10, $n = 21$ were removed because they did not complete the writing task, and $n = 8$ participants were removed because they were able to guess the hypothesis with a high degree of accuracy[14].

The final sample consisted of 108 (51 male, 57 female) Asian Canadian individuals between the ages of 17 – 22 years ($M = 18.38$, $SD = 0.73$). The sample consisted predominantly of Chinese ($n = 66$) and Korean ($n = 24$) undergraduates, with the next largest group being of Vietnamese descent ($n = 7$)[15].

4.1.2 Materials & Procedure

Participants were given generic instructions stating that the researchers were interested in their "attitudes and opinions towards a variety of issues" before being given

---

[13] The study originally sought to recruit only second-generation Asian Canadians, but after analyzing the number of eligible participants, the inclusion criteria was broadened to include 1.5 generation Asian Canadians.

[14] By chance, approximately equal number of participants were removed across conditions.

[15] $n = 10$ participants identified as multiracial. One participant identified as being of Portuguese descent, another as being of Chinese and Hong-Kong descent, and the rest as being of Canadian descent.

the Letter of Information and Consent documents. Participants were instructed that they could skip any question or end the study without penalty. The participants completed the computer-based surveys in groups of 1 - 4. First, participants filled out a demographic questionnaire in which they identified their ethnicity (e.g., Chinese, Korean, Vietnamese, etc.) and their level of acculturation to Canadian culture. The surveys were programmed such that all questions were reworded to reference the specific ethnic identification listed by a participant (e.g., To what extent do you think you have personally experienced discrimination because you are [ETHNICITY]-Canadian?). Participants who identified as belonging to more than one Asian ethnic group had questions reference Asian Canadians (e.g., To what extent do you think you have personally experienced discrimination because you are Asian-Canadian?).

After reporting basic demographic information, participants completed a scale assessing their belief that group-based discrimination was a prevalent issue (3-items – see Appendix G)[16] which was adapted from a similar scale in Kaiser, Drury, Spalding, Cheryan, & O'Brien (2009) and the Pew Research Center's (2012) Asian American Survey. Participants then completed a filler task in which they read and rated an article published by Western News (see Appendix G). Participants were then randomly assigned to read 3 vignettes ostensibly written about other students regarding either a) their negative experiences in university or b) personal experiences with discrimination (see Appendix G). After reading the vignettes, participants were asked to share their own experiences and then completed a manipulation check questionnaire assessing the degree to which they personally felt discriminated against (3-items – see Appendix G).

After completing the writing task, participants completed a series of questionnaires to assess perceived similarity to Canadians of their own ethnicity versus immigrants of their own ethnicity, and immigration attitudes (see Appendix G). Perceived trait similarity was obtained by calculating a difference score between how participants rated "[ETHNICITY]-Canadians" versus "newly arrived immigrants of

---

[16] GD was originally a 4-item scale, but one item had low reliability. Removing this item significantly improved Cronbach's α from $\alpha = .318$ to $\alpha = .811$.

[ETHNICITY] descent" along dimensions of warmth and competence (4 items each). As such, a smaller difference score indicates greater perceived similarity. Participants also completed a single-item measure assessing how similar they viewed "[ETHNICITY]-Canadians" and "newly arrived immigrants of [ETHNICITY] descent" on a 100-point thermometer scale (0% = not at all similar, 100% = identical) to assess perceived similarity in general. To assess attitudes towards immigrants, participants were asked to rate how they felt about "newly arrived immigrants of [ETHNICITY] descent" and "immigrants in general" on a 100-point feeling thermometer. Lastly, support for immigration policy was assessed using a 9-item questionnaire with items adapted from the Ipsos (2016) Immigration and Refugees Poll and The Environics Institute (2015) poll assessing Canadians' attitudes towards immigration and multiculturalism.

4.2 Results

Table 7. Reliability of Study 3 measures and descriptive statistics by condition

Measures	# of Items	Scale	Cronbach's α	Negative Experience (*n* = 53)		Personal Discrimination (*n* = 55)	
				M	SD	M	SD
Group Discrimination	3	1-9	.811	4.84	1.10	4.80	1.18
Manipulation Check	3	1-9	.806	5.62	1.53	5.95	1.83
Similarity							
Warmth[a]	4	-	.788	0.70	1.34	0.92	1.27
Competence[a]	4	-	.645	1.17	1.17	0.92	1.10
In general	1	1-100	-	41.73	19.44		
Immigrant Attitudes							
In general	1	1-100	-	71.20	21.25	69.06	21.79
Ethnic ingroup	1	1-100	-	65.76	24.35	66.23	23.67
Policy	9	1-9		6.72	1.26	6.57	1.40

a. Trait ratings for Asian Canadians (AC) and Asian Immigrants (AI) were on a 9-point scale and then a difference score (AC – AI) was calculated where positive numbers indicate that participants viewed AC as more warm and competent than AI

4.2.1 Analytic Strategy

Regression models were run with recall condition (PD; 0 = negative experience; 1 = experience with personal discrimination) and perceived prevalence of group discrimination as predictor variables, and perceived similarity (warmth, competence, similarity in general) and immigration attitudes (attitudes towards immigrants in general; attitudes towards immigrants from one's own ethnic group; attitudes towards immigration

policy) as criterion variables. Though the model controlled for participant generation, the results did not differ when this variable was not statistically controlled. Descriptive statistics and reliability (for multi-item scales) of each measure is summarized in Table 7.

4.2.2   Null Findings

Contrary to the hypotheses, there were no main effects for PD and GD on any of the outcome measures, and no significant interactions. A summary of the omnibus F-tests for the interaction and main effect regression models can be found in Table 8, with specific regression coefficients for each model in Appendix H.

Table 8. Summary of omnibus F-tests for the interaction and main effect models of *PD* and *GD* on the outcome variables.

Outcome Variables	Interaction			Main Effects Only		
	$F(4, 103)$	p	R^2	$F(3, 107)$	p	R^2
Similarity						
Warmth	0.33	.856	.013	0.32	.812	.009
Competence	0.95	.440	.035	1.11	.347	.031
In general	1.05	.409	.038	130	.279	.036
Immigraion Attitudes						
In general	0.35	.842	.013	0.15	.928	.004
Ethnic ingroup	0.95	.441	.035	1.25	.296	.035
Policy	0.70	.553	.020	1.22	.307	.045

4.3   Discussion

Contrary to the hypotheses, recalling personal experiences of race-based discrimination and people's beliefs in the prevalence of group-based discrimination did not affect the participants' perceived similarity with, and attitudes towards, immigrants and immigration. Differences in conceptual and methodological designs between Study 2 and 3, as well as reassessing psychometric assumptions may shed light into the discrepancy between results.

While both studies examined self-reported belief in the prevalence of group-based discrimination, Study 2 examined personal experiences in terms of whether a person has experienced instances of discrimination in the past 12 months. In contrast, Study 3 sought to experimentally manipulate personal experiences of discrimination by having participants recall experiences of personal discrimination (versus negative experiences in

general). The underlying assumption was that making past experiences of racial or ethnic discrimination salient (relative to negative experiences in general) would affect attitudes towards immigrants. A recent study by Sirin, Valentino, and Villalobus (2017)[17] may shed light on why this difference is important. In their research, they found that group-based empathy (that is, the ability to empathize with the struggles of other social groups) develops as a result of real-life experiences with discrimination. As such, a forced recall task in Study 3 may not influence attitudes as much as having experienced discrimination in one's recent history as illustrated in Study 2.

A second discrepancy between Study 2 and Study 3 is their population of focus. While the Asian American Survey (Pew Research Centre, 2012) aimed to recruit a representative sample of Asian Americans, the present study focused on Asian Canadian undergraduates. Given the young age of the Canadian sample, and that many Western undergraduates come from Toronto, these individuals may not have had as many experiences with discrimination to affect their attitudes the same way as the American sample. There may also be cross-national differences in Asian stereotypes between Canada and the United States. While Asians are stereotyped as perpetual foreigners, these stereotypes may be more prominent in the United States. For instance, Devos and Banaji (2005) found that Asians were least representative of people's prototype of "American". In contrast, Semenya (2001) found that at least Chinese Canadians (who made up most of this study) were seen as the most representative ethnic group of being "Canadian" after White Canadians. As such, racial and ethnic discrimination towards Asian Canadians may be less associated with being a perpetual foreigner compared to Asian Americans.

Lastly, this study assumed that the single item question from Study 2 "In general, do you think discrimination against [TARGET ETHNICITY] – Americans is a major problem, minor problem, or not a problem" was tapping into the same construct as Kaiser et al.'s (2009) scale, which assessed perceived prevalence of group-based discrimination.

---

[17] Sirin et al.'s (2017) research looked at how racism affected group based empathy towards other racial and ethnic groups, so it is unclear how group-based empathy develops for dissimilar social categories (e.g., gender, sexual orientation). As such, Sirin et al.'s findings do not contradict the findings of Craig and colleagues that experiences of discrimination can also lead to greater expressions of prejudice.

That is, this study assumed that perceiving discrimination to be a problem was equivalent to assuming it to be a prevalent issue. It is possible that Asian Canadians do not think discrimination is a prevalent issue in Canada, but still believe that it is an important issue that needs to be tackled.

Chapter 5

5 General Discussion

The purpose of this thesis was to address some of the gaps in the psychological literature with regards to intersections between immigration status and race/ethnicity. Although people's stereotypes of other groups vary by the group's ethnicity, it was unclear whether stereotypes of specific ethnic groups vary by the target's immigration status. Additionally, while there is literature on ethnic minority attitudes towards immigration, there is little research on how experiences of discrimination shape these attitudes. As such, this thesis aimed to address these issues across three studies.

5.1 Attitudes and Stereotypes Across Race/Ethnicity and Immigrant Status

Study 1 sought to examine how people view different target groups as a function of their race/ethnicity and immigration status. Though past research has shown that people differentiate between first and second generation immigrants (Lee & Fiske, 2006), in the current research affixing a race/ethnicity label to the target group caused people's attitudes and stereotypes to cluster around that label. That is, people's attitudes and stereotypes were more similar if target groups were labelled with the same race/ethnicity label, rather than the same immigration status. Interestingly, *Canadians in general* were rated most favourably in terms of perceived warmth and people's general attitudes towards those groups. This suggests that people may react negatively to affixing racial or ethnic labels onto one's Canadian identity, and that perhaps Canadian identity is no longer as intrinsically linked to Whiteness as it once was in Semenya's (2001) research. This is most evident in the stereotype content model, where Canadians in general did not cluster with any racial or ethnic group. In addition to this, closer analyses of demographic data in Study 1 and Study 3 show that at least a few people, when given the option to identify as "another race/ethnicity" as an open-ended question, identified themselves as Canadian. It is unfortunate, however, that some racial and ethnic groups (i.e., South Asian and Middle Eastern groups), along with immigrants, were clustered with non-Canadians. While there is evidence that *Canadians in general* may no longer be

intrinsically linked to being White, there is also evidence that other racial and ethnic groups are still considered outsiders.

Although these findings highlight the benefits of colour-blind strategies (i.e., de-emphasizing group differences in favour of a common identity) with regards to racial and ethnic diversity in Canada, there are still many benefits to emphasizing group differences, particularly for minority individuals. In a series of studies, for example, Vorauer and Quesnel (2017) found that salient multiculturalism (i.e., emphasizing and celebrating group differences) helped minority group members feel more powerful in intergroup interactions, thus helping bridge power differences implicit in majority and minority group members' standings in society. Additionally, multicultural ideology also leads to increased support for policies that aid minority group individuals and facilitates motivation for social change (Urbiola, Willis, Ruiz-Romero, Moya, & Esses, 2017). As such, while Study 1's data may suggest that it is better for people's *feelings* towards minority racial groups to de-emphasize group differences, we also need to evaluate whether such reductions in positive affect translate to changes in support for social change. Indeed, it appears that the benefits of multiculturalism, through giving minority individuals a greater sense of power and facilitating majority individuals' willingness for social change, outweighs the harms caused by minor shifts in attitudes.

With regards to the stereotype content model, while we found that East Asians and White Europeans fell into their expected clusters (i.e., high competence and warmth for White Europeans; high competence, low warmth for East Asians), we found that South Asians fell into the low competence/low warmth cluster. Despite this, it is worth noting that stereotypes across all groups showed a degree of ambivalence – that is, aside from Canadians in general, who were seen as more warm than competent, most groups were seen as more competent than warm. While this is more pronounced for East Asians, South Asians also showed a degree of ambivalence ($d \sim 0.2 - 0.5$).

These ambivalent stereotypes are particularly important given how they affect people's attitudes towards immigration. For instance, Reyna et al. (2013) found that mixed stereotypes of Arabs as intelligent and persecuted lead to support for pro-

immigration policies, while negative stereotypes of aggression lead to decreased support for these policies. These differential reactions to immigration policy are similar to Cuddy, Fiske, and Glick's (2007) work, which mapped behavioral and affective reactions as a function of intergroup stereotypes. Specifically, they found that groups high in competence but low in warmth tend to elicit envy, while those low in competence but high in warmth lead to pity. Thus, future work using the stereotype content model could try to see if there are specific attitudinal reactions with regards to different types of immigration policy that are linked to specific combinations of warmth and competence traits.

5.2 Experiences of Discrimination and Attitudes Towards Immigration

Studies 2 and 3 sought to examine how experiences of discrimination affected minority members' attitudes towards immigration. Using a nationally representative dataset from the Pew Research Centre (2012), Study 2 found that experiences of racism led Asian Americans to be more likely to express negative attitudes towards immigrants. These results, however, were moderated by people's beliefs that group-based discrimination was a prominent issue. That is, while experiences with discrimination led Asian Americans to express more negative attitudes, those who held the belief that group-based discrimination was a prominent issue were more likely to view immigrants positively. These findings, in concert with research by Craig and her colleagues (Craig & Richeson, 2014b, Craig et al., 2012; Craig & Richeson, 2012) suggest that immigrant identity is orthogonal to racial or ethnic identity despite lay perceptions conflating being American with being White (Devos & Banaji, 2005). However, believing that group-based discrimination amongst Asians, which predominantly takes the form of being treated as a perpetual foreigner, seems to mitigate these effects. As such, belief that group-based discrimination is an issue may be an outcome of perceiving a linked fate between American-born Asians and their immigrant counterparts. These findings, however, were not replicated in Study 3 in which we manipulated the salience of personal experiences of discrimination. Though there are many factors that could contribute to

these differences (e.g., cross-national differences, age differences) one factor that may be important in understanding the discrepancy is one's personal history with discrimination.

Another difference in design is the referent group for each study. Study 2 compared participants who reported experiencing discrimination in the past 12 months to those who did not. In contrast, Study 3 compared how recalling past experiences of discrimination relative to past negative experiences affected attitudes towards immigrants. A recent study by Sirin et al. (2017) suggests that life experiences with discrimination influence the development of group-based empathy. That is, individuals from marginalized groups learn to empathize with other out-group individuals who face similar struggles from their own experiences of discrimination. Thus, the effects from Study 2 may not have been found in Study 3 because recalling past experiences of discrimination is not the same thing as having differing levels of exposure to discriminatory behaviour. Given the formative influence life experiences have on people's attitudes, future work on minority experiences and subsequent attitude formation may benefit from longitudinal and cross-sectional approaches, rather than just experimental approaches in the lab.

5.3   Future Directions

Though Study 1 found that race/ethnicity, and not immigration status, drives people's stereotypes about various ethnic groups, the theory-driven approach to stereotype content may not match how people spontaneously generate stereotypes towards these groups. This criticism of Fiske et al.'s (2002) stereotype content model led to the development of a more data-driven model by Koch, Imhoff, Dotsch, Unkelbach, and Alves (2016). Dubbed the ABC model of stereotyping, Koch et al. (2016) found that group stereotypes clustered along two primary dimensions of **A**gency/Socio-economic Success (A; analogous to Competence) and Conservative-Progressive **B**eliefs (B), as well as **C**ommunion (C; analogous to Warmth), which was found to be an emergent property of the A and B dimensions. That is, individuals who are more extreme on either A and B on either side are seen as less warm than those who are more moderate along those dimensions. Thus, the primary difference in structure between the stereotype content

model and the ABC model is that the former views warmth (communion) as a fundamental dimension of stereotypes, while the latter views it as an emergent property.

Although the data-driven ABC model complements the structure of the theory-driven stereotype content model, there are differences in structure that may mean that the ABC model better captures differences in how people perceive immigrant and non-immigrant individuals from within the same ethnic group. Specifically, concerns about whether immigrants share 'Canadian values,' espoused by anti-immigrant politicians (e.g., see Tunney, 2017) suggest that anti-immigrant prejudice may stem from viewing immigrants as less progressive than Canadians. Thus, Canadian-born ethnic minorities may be seen as more progressive relative to immigrant minorities on the ABC model. Additionally, while Koch et al. (2016) suggest that the A dimension in ABC is closely analogous to competence in the stereotype content model, they also note that agency is more closely linked to socio-economic success than competence, which could also lead to differentiation between immigrants and non-immigrants along this dimension.

Study 1 also revealed some unexpected findings with regards to people's perceptions of Canadians in general. Though Semenya (2001) suggests that being Canadian is closely linked to being White, in Study 1 *Canadians in general* did not cluster with any other race/ethnic group and people had the most positive attitudes when the *Canadian* label was not qualified with an ethnic label. Thus, it is possible that the prototypical Canadian may not be strongly linked with the idea of being White. It is unclear, however, if this potential shift is because *everyone's* (i.e., both White and non-White Canadians') concept of being Canadian has been changed by Canada's increasing diversity, or if Canadians from ethnic minority backgrounds are less likely to link being Canadian to being White. As such, future research can examine whether people's mental representations of a "prototypical Canadian" differ not only as a function of the participant's ethnicity (e.g., White vs not White) but also whether diversity in one's social networks affect this image. That is, if people's perception of prototypical Canadians is affected by diversity, then we should see a weaker "Canadian = White" link amongst individuals who have more ethnically diverse social networks regardless of the individual's race/ethnicity.

With regards to Study 2 and 3, past research has shown that personal beliefs (e.g., linked fate) and personal experiences of discrimination affect people's attitudes towards immigrants. This study, however, contributes further to this literature by not only looking at the interaction between personal beliefs *and* experiences of discrimination, but also demographic variables. That is, while Study 2 found that experiences of ethnic discrimination leads an increased likelihood of expressing anti-immigrant sentiments among American-born Asian individuals, this effect was attenuated by the belief that group-based discrimination was an issue. Interestingly, however, the effect appears to go in the opposite direction for Asian immigrants. The mechanism for this is unclear. Whereas the pattern of results for American-born Asian individuals can be explained through the group position model and linked fate (Bobo & Hutchings, 1996; McClain et al., 2006; see Section 3.3 for full discussion) it is unclear why the opposite pattern arises for Asian immigrants.

One explanation may be that immigrants expect a degree of hardship when they first arrive in a country, and thus do not interpret personal acts of discrimination due to their ethnicity as anything more than a hurdle towards acculturation. Awareness that discrimination against one's group is a prominent issue may reflect a better understanding of the host country's social hierarchies, and thus, these individuals may derogate *other* immigrant groups as a means to elevate their own social status as would be predicted by Tajfel and Turner's Social Identity Theory (1979). While it is not difficult to find evidence that the interests of immigrant groups differ and thus may lead to conflict with newer immigrants (e.g., Bengali, 2016), more studies need to be undertaken to understand this phenomenon. Given that Canada and the United States are two of the largest immigrant-receiving nations, it is important to understand when and why older immigrant groups develop anti-immigrant sentiments in order to better foster social cohesion.

5.4 Conclusions

As Canadian and American populations become increasingly diverse, it is important that our research paradigms shift to reflect these changes. Though lay beliefs about Canada's multicultural landscape would suggest that people should have positive

attitudes towards Canadians regardless of racial or ethnic origin, this research has shown that people's attitudes are still primarily driven by these base categories. Additionally, research should also focus on how minority experiences affect attitudes towards immigrants. While people may assume that minority groups form a coalition in response to discrimination, it would be remiss to treat minority individuals as a monolith. Individual differences in one's experience with discrimination may shape attitudes towards immigrants, as evidenced in the second study. Thus, it is important to study intergroup relations, and especially immigration, from multiple perspectives in order to understand the nuance of these dynamics.

References

Bengali, S. (2016, July). Divided over immigration, one of Britain's most diverse cities

voted for 'Brexit'. Retrieved from *Los Angeles Times* at

http://www.latimes.com/world/la-fg-britain-birmingham-brexit-snap-story.html

Bobo, L., & Hutchings, V. L. (1996). Perceptions of racial group competition: Extending

Blumer's theory of group position to a multiracial social context. *American

Sociological Review*, 951-972.

Brewer, M. B. (1979). In-group bias in the minimal intergroup situation: A cognitive-

motivational analysis. *Psychological Bulletin*, 86(2), 307.

Castaneda, A. E., Rask, S., Koponen, P., Suvisaari, J., Koskinen, S., Härkänen, T., ... &

Jasinskaja-Lahti, I. (2015). The Association between Discrimination and

Psychological and Social Well-being A Population-based Study of Russian,

Somali and Kurdish Migrants in Finland. *Psychology & Developing Societies*,

27(2), 270-292.

Cheryan, S., & Bodenhausen, G. V. (2011). Model minority. In S. M. Caliendo & C. D.

McIlwain (Eds), *Routledge Companion to Race & Ethnicity* (pp. 173-176). New

York: Routledge

Craig, M. A., & Richeson, J. A. (2012). Coalition or derogation? How perceived

discrimination influences intraminority intergroup relations. *Journal of

Personality and Social Psychology*, 102(4), 759.

Craig, M. A., & Richeson, J. A. (2014a). Not in my backyard! Authoritarianism, social dominance orientation, and support for strict immigration policies at home and abroad. *Political Psychology*, *35*(3), 417-429.

Craig, M. A., & Richeson, J. A. (2014b). Discrimination divides across identity dimensions: Perceived racism reduces support for gay rights and increases anti-gay bias. *Journal of Experimental Social Psychology*, *55*, 169-174.

Craig, M. A., DeHart, T., Richeson, J. A., & Fiedorowicz, L. (2012). Do unto others as others have done unto you? Perceiving sexism influences women's evaluations of stigmatized racial groups. *Personality and Social Psychology Bulletin*, *38*(9), 1107-1119.

Cuddy, A. J., Fiske, S. T., Kwan, V. S., Glick, P., Demoulin, S., Leyens, J. P., ... & Htun, T. T. (2009). Stereotype content model across cultures: Towards universal similarities and some differences. *British Journal of Social Psychology*, *48*(1), 1-33.

Cuddy, A. J., Fiske, S. T., & Glick, P. (2007). The BIAS map: behaviors from intergroup affect and stereotypes. *Journal of Personality and Social Psychology*, *92*(4), 631.

Deaux, K. (2008). To be an American: Immigration, hyphenation, and incorporation. *Journal of Social Issues*, *64*(4), 925-943.

Devos, T., & Banaji, M. R. (2005). American= white?. *Journal of Personality and Social Psychology*, *88*(3), 447-466. http://dx.doi.org/10.1037/0022-3514.88.3.447

Delacre, M., Lakens, D., & Leys, C. (2017, February 20). Why Psychologists Should by Default Use Welch's t-test Instead of Student's t-test (in press for the International Review of Social Psychology). Retrieved from osf.io/sbp6k

Diamond, J. (1998). African-American attitudes towards United States immigration policy. *The International Migration Review*, *32*(2), 451-470.

Dietz, J., Joshi, C., Esses, V.M., Hamilton, L.K., & Gabarrot, F. (2015). The skill paradox: Explaining and reducing employment discrimination against skilled immigrants. *The International Journal of Human Resource Management*, *26*, 1318-1334. DOI: 10.1080/09585192.2014.990398

Dovidio, J. F., Gaertner, S. L., & Saguy, T. (2007). Another view of "we": Majority and minority group perspectives on a common ingroup identity. *European Review of Social Psychology*, *18*(1), 296-330.

Duckitt, J. (2001). A dual-process cognitive-motivational theory of ideology and prejudice. In M. P. Zanna (Eds.), *Advances in Experimental Social Psychology* (Vol 33, pp., 41-113) San Diego, CA: Academic Press. doi:10.1016/S0065-2601(01)80004-6

Duckitt, J., & Sibley, C. G. (2010). Right-Wing Authoritarianism and Social Dominance Orientation differentially moderate intergroup effects on prejudice. *European Journal of Personality*, 24, 583-601. DOI: 10.1002/per.772

Esses, V. M., Dovidio, J. F., Jackson, L. M., & Armstrong, T. L. (2001). The immigration dilemma: The role of perceived group competition, ethnic prejudice, and national identity. *Journal of Social issues*, *57*(3), 389-412.

Esses, V. M., Jackson, L. M., & Armstrong, T. L. (1998). Intergroup competition and attitudes toward immigrants and immigration: An instrumental model of group conflict. *Journal of Social Issues*, *54*(4), 699-724.

Esses, V.M., Medianu, S., & Lawson, A.S. (2013). Uncertainty, threat, and the role of the media in promoting the dehumanization of immigrants and refugees. *Journal of Social Issues*, *69*, 518-536.

Esses, V.M., Medianu, S., Hamilton, L., & Lapishina, N. (2014). Psychological perspectives on immigration and acculturation. In J.A. Simpson & J.F. Dovidio (Eds.), APA handbook of personality and social psychology Vol.2, Group processes. Interpersonal relations and group processes. Washington, DC: American Psychological Association.

Esses, V.M., Wagner, U., Wolf, C., Preiser, M., & Wilbur, C.J. (2006). Perceptions of national identity and attitudes toward immigrants and immigration in Canada and Germany. *International Journal of Intercultural Relations*, *30*, 685-696.

Ewoudou, J (2011) *Location of Study and the Labour Market Success of Immigrants to Canada*. Report written for Statistics Canada. Statistics Canada Catalogue no. 81-595-M. Retrieved from: www.statcan.gc.ca/pub/81-595-m/81-595-m2011093-eng.pdf

Fiske, S. T. (2012). Warmth and competence: Stereotype content issues for clinicians and researchers. *Canadian Psychology*, *53*(1), 14.

Fiske, S. T., Cuddy, A. J., 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*(6), 878.

Gaertner, S. L., Dovidio, J. F., Anastasio, P. A., Bachman, B. A., & Rust, M. C. (1993). The common ingroup identity model: Recategorization and the reduction of intergroup bias. *European Review of Social Psychology*, *4*(1), 1-26.

Garner, S., & Selod, S. (2014). The racialization of Muslims: empirical studies of Islamophobia. *Critical Sociology*, *41*(1), 9-19. DOI: 10.1177/0896920514531606.

Gaetano J. (2013). Holm-Bonferroni sequential correction: An EXCEL calculator (1.2) [Microsoft Excel workbook]. Retrieved from https://www.researchgate.net/publication/242331583_Holm-Bonferroni_Sequential_Correction_An_EXCEL_Calculator_-_Ver._1.2. doi:10.13140/RG.2.1.3920.0481

González, R., & Brown, R. (2006). Dual identities in intergroup contact: Group status and size moderate the generalization of positive attitude change. *Journal of Experimental Social Psychology*, *42*(6), 753-767.

Grubbs, F. E. (1969). Procedures for detecting outlying observations in samples. *Technometrics*, *11*(1), 1-21.

Holm, S. (1979). A simple sequential rejective method procedure. *Scandinavian Journal of Statistics*, 6, 65-70.

Huynh, Q. L., Devos, T., & Smalarz, L. (2011). Perpetual foreigner in one's own land: Potential implications for identity and psychological adjustment. *Journal of Social and Clinical Psychology*, *30*(2), 133.

Immigration, Refugees, and Citizenship Canada (2015). Hire a foreign worker with Canadian experience. Retrieved from: http://www.cic.gc.ca/english/hire/cec.asp

Inman, A. G., Tummala-Narra, P., Kaduvettoor-Davidson, A., Alvarez, A. N., & Yeh, C. J. (2015). Perceptions of race-based discrimination among first-generation Asian Indians in the United States. *The Counseling Psychologist*, 43(2), 217-247. DOI: 10.1177/0011000014566992

Ipsos (2016, July). Global views on immigration and the refugee crisis. Retrieved from https://www.ipsos.com/ipsos-mori/en-uk/global-study-shows-many-around-world-uncomfortable-levels-immigration

Kaiser, C. R., Drury, B. J., Spalding, K. E., Cheryan, S., & O'Brien, L. T. (2009). The ironic consequences of Obama's election: Decreased support for social justice. *Journal of Experimental Social Psychology*, *45*(3), 556-559.

Kang, S.K., & Chasteen, A.L. (2009). Beyond the double jeopardy hypothesis: Assessing emotion on the faces of multiply-categorizable targets of prejudice. *Journal of Experimental Social Psychology*, *45*, 1281-1285.

Koch, A., Imhoff, R., Dotsch, R., Unkelbach, C., & Alves, H. (2016). The ABC of

    stereotypes about groups: Agency/socioeconomic success, conservative–

    progressive beliefs, and communion. *Journal of personality and social*

    psychology, *110*(5), 675.

Lee, T. L., & Fiske, S. T. (2006). Not an outgroup, not yet an ingroup: Immigrants in the

    stereotype content model. *International Journal of Intercultural Relations*, *30*(6),

    751-768.

Louis, W.R., Lalonde, R.N., & Esses, V.M. (2010). Bias against foreign-born / foreign-

    trained physicians: Experimental evidence. *Medical Education*, *44*, 1241-1247.

Macrae, C.N., Milne, A.B., & Bodenhausen, G.V. (1995). The dissection of selection in

    person perception: Inhibitory processes in social stereotyping. *Journal of*

    Personality and Social Psychology, *69*(3), 397-407.

Maheux, H., & Houle, R. (2016) *150 years of immigration in Canada, 1867 to 2014*.

    Report written for Statistics Canada. Statistics Canada Catalogue no. 11-630-X.

    Retrieved from: http://www.statcan.gc.ca/pub/11-630-x/11-630-x2016006-

    eng.htm

McClain, P. D., Carter, N. M., DeFrancesco Soto, V. M., Lyle, M. L., Grynaviski, J. D.,

    Nunnally, S. C., ... & Cotton, K. D. (2006). Racial distancing in a southern city:

    Latino immigrants' views of Black Americans. *Journal of Politics*, *68*(3), 571-

    584.

Milligan, S. (2013, December 21). Sikhs Become a Casualty of Anti-Muslim Actions.

    Retrieved October 11, 2016, from US News and World Report,

http://www.usnews.com/news/articles/2015-12-31/sikhs-become-a-casualty-of-anti-muslim-actions

Niemann, Y.F., Jennings, L., Rozelle, R.M., Baxter, J.C., & Sullivan, E. (1994). Use of free response and cluster analysis to determine stereotypes of eight groups. *Personality and Social Psychology Bulletin*, *4*, 379-390. doi: 10.1177/0146167294204005

Pak, A. W., Dion, K. L., & Dion, K. K. (1991). Social-psychological correlates of experienced discrimination: Test of the double jeopardy hypothesis. *International Journal of Intercultural Relations*, *15*, 243-254.

Pearson, M. R. (2010). How "undocumented workers" and "illegal aliens" affect prejudice toward Mexican immigrants. *Social Influence*, *5*(2), 118-132.

Pew Research Center (2012). 2012 Asian-American Survey [Data file and code book]. Retrieved from. http://www.pewsocialtrends.org/2012/06/19/the-rise-of-asian-americans/

Poolokasingham, G., Spanierman, L. B., Kleiman, S., & Houshmand, S. (2014). "Fresh off the boat?" racial microaggressions that target South Asian Canadian students. *Journal of Diversity in Higher Education*, *7*(3), 194.

Purdie-Vaughns, V., & Elbach, R.P. (2008). Intersectional invisibility: The distinctive advantages and disadvantages of multiple subordinate-group identities. *Sex Roles*, *59*, 377-391.

Pyke, K., & Dang, T. (2003). "FOB" and "whitewashed": Identity and internalized

    racism among second generation Asian Americans. Qualitative Sociology, 26(2),

    147-172.

Remedios, J. D., & Snyder, S. H. (2015). Where Do We Go From Here? Toward an

    Inclusive and Intersectional Literature of Multiple Stigmatization. *Sex Roles*,

    73(9), 408-413. doi:10.1007/s11199-015-0543-4

Remedios, J.D., Chasteen, A.L., & Paek, J.D. (2012). Not all prejudices are experienced

    equally: Comparing experiences of racism and sexism in female minorities.

    Group Processes and Intergroup Relations, *15*, 273-287. doi:

    10.1177/136843021141159.

Reyna, C., Dobria, O., & Wetherell, G. (2013). The complexity and ambivalence of

    immigration attitudes: Ambivalent stereotypes predict conflicting attitudes toward

    immigration policies. *Cultural Diversity and Ethnic Minority Psychology*, *19*(3),

    342-356.

Semenya, A. H. (2001).Intergroup and Intragroup Attitudes of Ethnic Minority Groups

    (Unpublished master of arts dissertation). University of Western Ontario, London,

    ON, Canada.

Sirin, C., & Valentino, N. A., Villalobos, J.(2014). The Social Causes and Political

    Consequences of Group Empathy. *Political Psychology*, *38*, 427 – 448. doi:

    10.1111/pops.12352

Shin, J. (2016). Hyphenated identities of Korean heritage language learners: Marginalization, colonial discourses and internalized whiteness. *Journal of Language, Identity & Education*, *15*(1), 32-43.

Sue, D. W., Bucceri, J., Lin, A. I., Nadal, K. L., & Torino, G. C. (2009). Racial microaggressions and the Asian American experience. *Asian American Journal of Psychology*, *1*, 88 – 101.

Stephan,W. G., Ybarra, O.,&Bachman, G. (1999). Prejudice toward immigrants: An integrated threat theory. *Journal of Applied Social Psychology*, *29*, 2221-2237.

Tajfel, H. & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (eds), *The Social Psychology of Intergroup Relations*, pp. 33-47. Monterey, CA: Brooks/Cole.

The Environics Institute (2015). Canadian public opinion on immigration and multiculturalism. Retrieved from http://www.environicsinstitute.org/institute-projects/completed-projects/focus-canada-2015-immigration-and-multiculturalism

Thornton, M. C., & Mizuno, Y. (1999). Economic well-being and Black adult feelings toward immigrants and Whites, 1984. *Journal of Black Studies*,*30*(1), 15-44.

Timberlake, J. M., & Williams, R. H. (2012). Stereotypes of US immigrants from four global regions. *Social Science Quarterly*, *93*(4), 867-890.

Toselli, S., Gualdi-Russo, E., Marzouk, D., Sundquist, J., & Sundquist, K. (2014). Psychosocial health among immigrants in central and southern Europe. *The European Journal of Public Health*, *24*(supplement 1), 26-30.

Tunney, C. (2017). Kellie Leitch would charge immigrants for Canadian values test. Retreived from *CBC News | Politics* at http://www.cbc.ca/news/politics/anti-canadian-values-test-leitch-1.3925420

Turner, J. C. & Reynolds K. J. (2011) Self-Categorization Theory. In P. A. M. Van Lange, A. W. Kruglanski, E. T. Higgins (ed), *Handbook of Theories of Social Psychology*, *2*, 399 - 417.

Urbiola, A., Willis, G. B., Ruiz-Romero, J., Moya, M., & Esses, V. (2017). Valuing diversity in Spain and Canada: The role of multicultural ideology in intergroup attitudes and intentions to reduce inequalities. *International Journal of Intercultural Relations*, *56*, 25-38.

Vorauer, J. D., & Quesnel, M. S. (2017). Salient multiculturalism enhances minority group members' feelings of power. *Personality and Social Psychology Bulletin*, *43*(2), 259-271.

Waldinger, R. (1997). Black/immigrant competition re-assessed: New evidence from Los Angeles. *Sociological Perspectives*, *40*(3), 365-386.

Weber, R., & Crocker, J. (1983). Cognitive processes in the revision of stereotypic beliefs. *Journal of Personality and Social Psychology*, *45*(5), 961-977.

Appendices

Appendix A: Study 1 Ethics Approval

Western Research

Research Ethics

Western University Non-Medical Research Ethics Board
NMREB Delegated Initial Approval Notice

Principal Investigator: Prof. Vicki Esses
Department & Institution: Social Science\Psychology,Western University

NMREB File Number: 107291
Study Title: Intergroup Perception
Sponsor:

NMREB Initial Approval Date: October 31, 2015
NMREB Expiry Date: October 31, 2016

Documents Approved and/or Received for Information:

Document Name	Comments	Version Date
Other	Debriefing	2015/10/07
Other	Stereotype Content Model	2015/10/07
Other	Open-ended measures	2015/10/07
Other	Attitude Thermometer	2015/10/07
Other	Demographics	2015/10/07
Revised Letter of Information & Consent		2015/10/20
Recruitment Items	SONA Blurb	2015/10/20
Revised Western University Protocol		2015/10/20

The Western University Non-Medical Research Ethics Board (NMREB) has reviewed and approved the above named study, as of the NMREB Initial Approval Date noted above.

NMREB approval for this study remains valid until the NMREB Expiry Date noted above, conditional to timely submission and acceptance of NMREB Continuing Ethics Review.

The Western University NMREB operates in compliance with the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (TCPS2), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario.

Members of the NMREB who are named as Investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB.

The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

Ethics Officer, on behalf of Riley Hinson, NMREB Chair or delegated board member

Ethics Officer to Contact for Further Information: Erika Basile ___ Nicole Kaniki ___ Grace Kelly ___ Mina Mekhail ___ Vikki Tran ___

This is an official document. Please retain the original in your files

Appendix B: Study 1 Target Groups and Questionnaires

Target Groups

Non-Canadians in general	Immigrants in general	Canadians in general
White Europeans in general	White European Immigrants	Canadian-born White Europeans
East Asians in general (e.g., Chinese, Japanese, Korean, etc.)	East Asian Immigrants (e.g., Immigrants from China, Japan, Korea, etc.)	Canadian-born East Asians (e.g., Canadians of Chinese, Japanese, Korean, etc. descent)
South Asians in general (e.g., Indian, Sri Lankan, Pakistani, etc.)	South Asian Immigrants (e.g., Immigrants from India, Sri Lanka, Pakistan, etc.)	Canadian-born South Asians (e.g., Canadians of Indian, Sri Lankan, Pakistani, etc. descent)
Middle Easterners in general	Middle Eastern Immigrants	Canadian-born Middle Easterners

Stereotype Content Model

Participant's perceptions of warmth and competence will be measured using Fiske, Cuddy, Glick, and Xu's (2002) Stereotype Content Model. Participants responded to the degree with which they agreed to each statement on a 5-point scale (1=not at all; 5=extremely). Participants were given the instructions:

[Target Group]

We are not interested in your personal beliefs, **but in how you think others view [Target Group]**. Please indicate your response to each statement below

1. As viewed by society, how competent are members of this group?
2. As viewed by society, how confident are members of this group?
3. As viewed by society, how capable are members of this group?
4. As viewed by society, how skillful are members of this group?
5. As viewed by society, how friendly are members of this group?
6. As viewed by society, how warm are members of this group?
7. As viewed by society, how good-natured are members of this group?
8. As viewed by society, how sincere are members of this group?

Scale items taken from the Cuddy et al. (2009) article from The British Journal of Social Psychology due to the cross-cultural validation in non-U.S. samples. Competition items from the original scale were used for relevance, because Cuddy et al.'s (2009) examined competition between nations in the European Union.

Attitude Thermometer

We are interested in people's attitudes toward [Target Group]. Below you will see something that looks like a thermometer. You will be using this to indicate your attitude toward [Target Group]. Here's how it works:

- If you have a favourable attitude toward [Target Group], you would give them a score somewhere between 50º and 100º, depending on how favourable your evaluation is of [Target Group].
- On the other hand, if you have an unfavourable attitude toward [Target Group], you would give them a score somewhere between 0º and 50º, depending on how unfavourable your evaluation is of [Target Group].

The degree labels will help you to locate [Target Group] on the thermometer. However, you are <u>not</u> restricted to the numbers indicated - feel free to use any number between 0º and 100º. <u>Please be honest</u>. Your responses will be kept completely confidential.

Please provide a number between 0º and 100º to indicate your attitude toward [Target Group]:

```
 |    |    |    |    |    |    |    |    |    |    |
 0   10   20   30   40   50   60   70   80   90  100
```
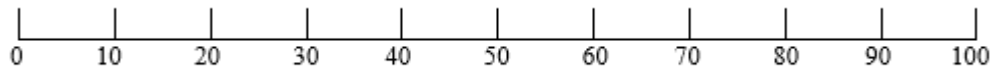
Appendix C: End-User License for Pew Research Data for Study 2

This is a legal agreement between you, the end-user ("User") and Pew Research Center (the "Center"). By downloading the survey data made available on this web site ("Data") you are agreeing to be bound by the terms and conditions of this agreement. If you do not agree to be bound by these terms, do not download or use the Data.

The Center hereby grants to the User a non-exclusive, revocable, limited, non-transferable license to use the Data solely for (1) research, scholarly or academic purposes, (2) the internal use of your business, or (3) your own personal non-commercial use. You may not reproduce, sell, rent, lease, loan, distribute or sublicense or otherwise transfer any Data, in whole or in part, to any other party, or use the Data to create any derived product for resale, lease or license. Notwithstanding the foregoing, you may incorporate limited portions of the Data in scholarly, research or academic publications or for the purposes of news reporting, provided you acknowledge the source of the Data (with express references to the Center, as well as the complete title of the report) and include the following legend:

The Pew Research Center bears no responsibility for the analyses or interpretations of the data presented here.

THE DATA IS PROVIDED "AS IS" WITHOUT ANY WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, ARISING BY LAW OR OTHERWISE, INCLUDING BUT NOT LIMITED TO WARRANTIES OF COMPLETENESS, NON-INFRINGEMENT, ACCURACY, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE. THE USER ASSUMES ALL RISK ASSOCIATED WITH USE OF THE DATA AND AGREES THAT IN NO EVENT SHALL THE CENTER BE LIABLE TO YOU OR ANY THIRD PARTY FOR ANY INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR THE INABILITY TO USE EQUIPMENT OR ACCESS DATA, LOSS OF BUSINESS, LOSS OF REVENUE OR PROFITS, BUSINESS INTERRUPTIONS, LOSS OF INFORMATION OR DATA, OR OTHER FINANCIAL LOSS, ARISING OUT OF THE USE OF, OR INABILITY TO USE, THE DATA BASED ON ANY THEORY OF LIABILITY INCLUDING, BUT NOT LIMITED TO, BREACH OF CONTRACT, BREACH OF WARRANTY, TORT (INCLUDING NEGLIGENCE), OR OTHERWISE, EVEN IF USER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

The Center has taken measures to ensure that the Data is devoid of information that could be used to identify individuals (e.g., names, telephone numbers, email addresses, social security numbers) who participated in or who were the subject of any research surveys or studies used to collect the Data ("Personally Identifying Information"). However, in the event that you discover any such Personally Identifying Information in the Data, you shall immediately notify the Center and refrain from using any such Personally Identifying Information.

This license will terminate (1) automatically without notice from the Center if you fail to comply with the provisions of this agreement, or (2) upon written notice (by e-mail, U.S. or otherwise) from the Center. Upon termination of this agreement, you agree to destroy all copies of any Data, in whole or in part and in any and all media, in your custody and control.

This agreement shall be governed by, construed and interpreted in accordance with the laws of the District of Columbia. You further agree to submit to the jurisdiction and venue of the courts of the District of Columbia for any dispute relating to this Agreement.

Appendix D: Regression Model and for Study 2

Regression coefficients for the 2-way interaction between Country of Birth, Personal Discrimination, and Group Discrimination:

```
Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  1.63433    0.01257 130.014  < 2e-16 ***
USBorn      -0.52028    0.01958 -26.567  < 2e-16 ***
GD          -0.06095    0.01117  -5.454 3.97e-07 ***
PD1         -0.13376    0.02246  -5.955 4.47e-08 ***
USBorn:GD    0.30791    0.02501  12.314  < 2e-16 ***
USBorn:PD1  -0.35737    0.04012  -8.907 3.88e-14 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Regression coefficients for the 3-way interaction between Country of Birth, Personal Discrimination, and Group Discrimination:

```
Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)    1.57240    0.01390 113.149  < 2e-16 ***
USBorn        -0.34193    0.02134 -16.020  < 2e-16 ***
GD             0.02394    0.01534   1.561    0.122
PD1            0.36831    0.04530   8.131 1.92e-12 ***
USBorn:GD      0.02858    0.02820   1.013    0.314
USBorn:PD1    -1.46098    0.06056 -24.125  < 2e-16 ***
GD:PD1        -0.45919    0.03513 -13.071  < 2e-16 ***
USBorn:GD:PD1  1.11689    0.05475  20.401  < 2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Appendix E: Study 3 Ethics Approval Form

Western Research

Western University Non-Medical Research Ethics Board
NMREB Full Board Initial Approval Notice

Principal Investigator: Prof. Vicki Esses
Department & Institution: Social Science\Psychology, Western University

NMREB File Number: 108739
Study Title: Asian Canadian Experiences

NMREB Initial Approval Date: December 22, 2016
NMREB Expiry Date: December 22, 2017

Documents Approved and/or Received for Information:

Document Name	Comments	Version Date
Western University Protocol	Received December 15, 2016	
Recruitment Items	SONA Description - Received November 15, 2016	
Letter of Information & Consent		2016/12/13
Instruments	Questionnaires and Procedure	2016/12/13
Instruments	Western News article and Vignettes participants are asked to read	2016/11/14
Other	Debriefing and Resources - Received November 15, 2016	

The Western University Non-Medical Research Ethics Board (NMREB) has reviewed and approved the above named study, as of the NMREB Initial Approval Date noted above.

NMREB approval for this study remains valid until the NMREB Expiry Date noted above, conditional to timely submission and acceptance of NMREB Continuing Ethics Review.

The Western University NMREB operates in compliance with the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (TCPS2), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario.

Members of the NMREB who are named as Investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB.

The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

Ethics Officer, on behalf of Dr. Riley Hinson, NMREB Chair

Ethics Officer: Erika Basile ___ Nicole Kaniki ___ Grace Kelly ___ Katelyn Harris ___ Vikki Tran ___ Karen Gopaul ___

Appendix F: Study 3 Questionnaires

Section 1: Demographics
Q1.1 The following questions are general demographic questions about yourself. Please answer these questions as honestly as possible.

Q1.2 Please identify which one or more of the following specific Asian groups you belong to. Please select all that applies.
Bangladeshi
Bhutanese
Burmese
Cambodian
Chinese
Filipino
Hmong
Indian
Indonesian
Japanese
Korean
Laotian
Malaysian
Maldivian
Mongolian
Nepali
Pakistani
Singaporian
Sri Lankan
Taiwanese
Thai
Vietnamese
Another Asian Ethnicity (Please Specify) _____
Do not wish to respond

NOTE: Response to Q1.2 will replace all instances with [ETHNICITY] in the questionnaire with participant's responses. Participants who choose multiple ethnicities or choose to not respond will see "Asian" in place of [ETHNICITY] in their questionnaire.

Q1.3 Do you consider yourself to be multi-racial? If yes, please indicate any other races/ethnic groups to which you belong in the space provided.
Yes (Please Specify) _____
Yes (I do not wish to specify)
No
Do not wish to respond

Q1.4 How would you identify your gender?

Male
Female
Another Gender Identity (Please Specify) _____
Do not wish to respond

Q1.5 What is your age (whole numbers only)?

_____

Q1.6 Were you born in Canada?
Yes
No If you selected "No" please indicate how long you have lived in Canada (numerical value in years only) _____
Do not wish to respond

Section 2: Perceived Group Discrimination [scale: 1 – strongly disagree; 9 - strongly agree, unless otherwise specified]

Q2.1 To what extent do you think that discrimination against [ETHNICITY]-Canadians is a problem in today's society? [scale: 1 – not at all a problem; 9 – A major problem]
Q2.2 Canada has further to go in terms of achieving social and economic equality for [ETHNICITY]-Canadians.
Q2.3 There is little effort needed in terms of achieving social and economic equality for [ETHNICITY]-Canadians.
Q2.4 When I think about racial progress, I think about how much more Canada needs to achieve in terms of achieving social and economic equality for [ETHNICITY]-Canadians.

Acculturation Question
Q2.5 On the scale below, please report acculturated you believe yourself to be (i.e., how much have you adopted Canadian culture) from 0 (not at all acculturated) to 100 (completely acculturated):

Section 3: Western News [scale: 1 – strongly disagree; 9 - strongly agree]

In the following section, you will be asked to read a short article from the Western Gazette and to give your opinion on the article.

[See *Western News Article* in Appendix F]

Q3.1 The article was well written
Q3.2 The article was interesting
Q3.3 The article was unbiased
Q3.4 I would read more articles from the Western Gazette

Section 4: Reading & Writing Task

Q4.1 In the following section, you will be reading about people's experiences with discrimination in Canada.

[See *Personal Discrimination Vignettes* in Appendix F]

In the previous section, you read about people's experience with racism and ethnic discrimination. In the space below, please share any experiences in which you think you may have been personally discriminated against based on your race or ethnic group (i.e., [ETHNICITY]-Canadians) in Canada. Since people tend to not express racist attitudes overtly, you may share experiences where you think you may have been discriminated against but are not entirely sure.

Please describe:
The event that lead to your experience of racial/ethnic discrimination
How you were discriminated against
How it made you feel afterwards

---OR--

[See *Negative Discrimination Vignettes* in Appendix F]

In the previous section, you read about people's negative experiences in university. In the following spaces below, please share any negative experiences you had in university. Since everyone's experiences are different, you may share events that you thought was a negative experience even if others would not.

Please describe:
The event that lead to your negative experience
How this experience was negative for you
How it made you feel afterwards

Section 5: Manipulation Check [scale: 1 – strongly disagree; 9 - strongly agree]

Q5.1 To what extent do you think you have personally experienced discrimination because you are [ETHNICITY]-Canadian?
Q5.2 I have been treated differently by others because I am [ETHNICITY]-Canadian
Q5.3 People have made assumptions about me because I am [ETHNICITY]-Canadian

Section 6: Similarity in Warmth and Competence

In the following set of questions, we are interested in your general impressions [TARGET GROUP]. There are no right or wrong answers, so please answer as honestly as possible.

Q6.1 to Q6.8 How [competent, confident, capable, skillful, friendly, warm, good-natured, sincere] are [TARGET GROUP]? [scale: 1 – Not at all; 9 – Extremely]

Section 7: Similarity in general

Q7.1 How similar do you think [ETHNICITY]-Canadians and newly arrived immigrants of [ETHNICITY] descent are to each other on a scale of 0 to 100%, with 0 indicating no similarity and 100 indicating that they are identical?

Section 8: Attitude Questionnaire

We are interested in people's attitudes toward newly arrived immigrants of [ETHNICITY] descent and Immigrants in General. Below you will see something that looks like a thermometer. You will be using this to indicate your attitude toward these two groups. Here's how it works:
If you have a favourable attitude towards that group, you would give them a score somewhere between 50º and 100º, depending on how favourable your evaluation is.
On the other hand, if you have an unfavourable attitude toward that group, you would give them a score somewhere between 0º and 50º, depending on how unfavourable your evaluation is.
The degree labels will help you to locate your attitudes towards these groups on the thermometer. However, you are not restricted to the numbers indicated - feel free to use any number between 0º and 100º. Please be honest. Your responses will be kept completely confidential.

Q8.1 Please indicate your attitudes towards Immigrants in General below (0 - 50º being unfavourable, 51 - 100º indicating favourable attitudes):
Q8.2 Please indicate your attitudes towards newly arrived immigrants of [ETHNICITY] descent below (0 - 50º being unfavourable, 51 - 100º indicating favourable attitudes):

Section 9: Policy Questionnaire [scale: 1 – strongly disagree; 9 – Strongly Agree]

In the following set of questions, we are interested in your opinions regarding Canada's immigration policies.

Q9.1 Immigration has placed too much pressure on public services in Canada
Q9.2 Immigrants have made it difficult for Canadians to get jobs
Q9.3 Immigration is good for Canada's economy
Q9.4 Immigrants make Canada a more interesting place to live
Q9.5 Overall, there is too much immigration in Canada
Q9.6 Overall, immigration has a positive impact on Canada's economy
Q9.7 Immigrants take away jobs from other Canadians
Q9.8 Canada's immigration system does a good job of keeping criminals and suspected criminals out of the country
Q9.9 There are too many immigrants coming to this country who are not adopting Canadian values

Appendix G: Study 3 Articles and Vignettes

Western news Article: Study: 'Weekday effect' not a factor in surgery

The day of the week elective surgery is performed in Ontario does not impact a patient's risk of mortality, according to a new study from Western and the Institute for Clinical Evaluative Sciences (ICES).

"While previous studies have shown a higher risk of mortality in patients having elective surgery Friday rather than earlier in the week, our data indicates that's not the case in Ontario," said Schulich School of Medicine & Dentistry professor Dr. Christopher Vinden, the study's senior author who is an adjunct scientist at ICES.

The study examined all adult patients who underwent one of 12 elective daytime surgical procedures during a 10-year period from 2002-12. The researchers included 402,899 procedures performed by 1,691 different surgeons and found no difference in 30-day mortality when Friday was compared with Monday.

"Our data suggests that despite differences in surgeon experience, the risk of 30-day mortality after elective surgery was similar regardless of which day of the week the procedure took place," said Schulich professor Dr. Luc Dubois, the study's lead author and a vascular surgeonvascular surgeon at London Health Sciences Centre.

The researchers found that surgeon experience varied significantly by day of week, with those operating on Fridays having the least experience. Nearly all patients who had their procedure on a Friday had postoperative care on the weekend, while only 49.1 per cent of patients who were operated on a Monday did.

The study – *Day of the week and elective surgical mortality: a population-based cohort study* – was published Monday in the *Canadian Medical Association Journal.*

Procedures included were elective surgeries on the esophagus, kidney, pancreas, colon, liver, hip and knee replacements, aortic valve replacements and others. The 12 procedures were chosen because they are commonly only done electively and typically result in at least a two-day hospital stay.

"These results suggest that increased mortality after elective surgery occurring later in the week is not a universal phenomenon across all healthcare systems. Therefore, should be a correctable issue in those jurisdictions where it occurs," Dubois said.

Personal Discrimination Vignettes

Student 1
"When I was in third grade, I used to take the school bus and there was a boy that used to pick on me. He used to make fun of my accent and imitate how I talk. At the time, I didn't really know it was racism because I was too young, but thinking back…he only made fun of me because I said things a little different. I knew how to speak two different languages but I felt self-conscious about talking in English because of my accent so I just ended up being really quiet all the time."

Student 2
"A lot of people I think see Asians as some sort of a model minority…that Asians are high achieving, good at school, and get good jobs. I guess most people would think that's a positive thing but I get a lot of "oh your Asian, why aren't you good at math?" type comments. I know being seen as a model minority is supposed to be good or something, but it kind of pigeonholes me into people's narrow concept where I have to be good at one thing but not the other. It's just really frustrating because people assume I'm just a nerd or something when they first talk to me."

Student 3
"I was born in Canada, and so were my parents. I always get asked "where are you from?". I get that they mean "what's your ethnicity/background" but the way I get asked this question always makes me feel like I don't belong. Even though I've been here all my life I'm still not just a "Canadian" I'm an "Asian Canadian". I remember when I was in kindergarten, my school teacher said I spoke English really well. Obviously I took it as a compliment at the time, but now looking back…she assumed that I wouldn't know English because I'm Asian. It's more exhausting than anything."

Negative Experiences Vignettes

Student 1
"I was a third year chemistry major dating another girl in my program. It was mid-term season, so we didn't have a lot of time to spend with each other since we were both busy studying for our exams. I was taking this really hard organic chemistry course and she called me the night before my midterm. She broke up with me over the phone. That really screwed me up the next day when I had to take my midterm and I dropped out of the class because I failed the test."

Student 2
"I was in my final year of university writing my honours thesis. I was working in a developmental-clinical research lab and the supervisors were super strict. I had to read a 500-page manual on how to interact with parents and children. They would sit with me and supervise me with everything I do. I got chastised for wearing inappropriate clothing, which was jeans and a t-shirt. I also got chastised for lending a participant money to pay for parking fees even though I paid it back the next day. Overall, it was a negative experience…I think mostly because of the lab manager who seemed to be on a power-

trip. I was doing so much work to get my honours thesis done and then it felt like they were treating me like a child and had no independence whatsoever. Like can you stop babying me?"

Student 3
"I remember in second year physics, we had a professor who basically disregarded any of our prompts for proper teaching. He would just ignore important components and aspects we needed to know to understand concepts later in the semester and then proceeded to blame us for not understanding the concepts. He would basically make fun of us for not knowing these concepts. Most of the students were afraid of him and it wasn't a very good class. I guess the guy just had a massive ego and treated physics majors better than other majors. I guess it was just really stressful because you were trying to pass and we weren't getting any help."

Appendix H: Regression Coefficients for Study 3

Regression coefficients for all outcome variables in Study 2 for both the interaction and main effects model. All regression coefficients held country-of-birth (Foreign-born, Canadian) as a constant amongst 1.5 and 2nd generation participants. No differences were found when the variable was not held constant.

	Standardized *B*: Interaction Model			Standardized *B*: Main Effects Model	
Outcome Variables	GD	PD	GD•PD	GD	PD
Similarity					
Warmth	-0.044	-0.098	0.194	0.015	0.076
Competence	0.033	-0.288	0.213	0.098	-0.97
In General	0.008	0.054	0.124	0.045	0.164
Immigration Attitudes					
In General	-0.103	-0.302	0.308	-0.009	-0.045
Ethnic Ingroup	0.036	-0.089	-0.084	0.062	-0.014
Policy	-0.139	-0.535	0.515	0.018	-0.074

Curriculum Vitae

Name:	Paolo Aldrin Palma

Post-secondary Education and Degrees:

The University of Western Ontario
London, Ontario, Canada
Specialization: Migration and Ethnic Relations
M.Sc., Social Psychology (2017)

University of Toronto
Toronto, Ontario, Canada
B.Sc., Psychology (2014)

Honours and Awards:

Social Science and Humanities Research Council (SSHRC)
Doctoral Fellowship: $80,000
2017 – 2021

Faculty of Social Science at The University of Western Ontario
Graduate Research Award Fund: $750
2017

Social Science and Humanities Research Council (SSHRC)
Canada Graduate Scholarship (Master's): $17,500
2016 – 2017

Related Work Experience

Teaching Assistant
The University of Western Ontario
2015 – 2017

Publications:

Balakrishnan, A., **Palma, P. A.**, Patenaude, J., & Campbell, L. (2017). A 4-study replication of the moderating effects of greed on socioeconomic status and unethical behaviour. *Scientific Data, 4*, 160120. doi:10.1038/sdata.2016.120

Balakrishnan, A., **Palma, P.**, Esses, V.M., Hussein, H., & Walsh, C. (2016). *London and Middlesex Local Immigration Partnership: Community capacity and perceptions of the LMLIP.* Report written for the City of London.