Combatting Anti-Indigenous Prejudice Through Imagined Contact:

A Mixed-Methods Investigation

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Abstract

Anti-Indigenous prejudice is a pervasive, enduring phenomenon in Canada, drawing on a heavily-entrenched legacy of colonialism. To date, no social psychological studies have examined techniques that could reduce this prejudice and its correlates in a Canadian context. To address this gap, an experimental study drawing on the imagined contact hypothesis was conducted. Participants ($N = 307$) were randomly assigned to imagine a positive interaction with a stranger of an unspecified or Indigenous ethnic background. They then described the imagined interaction in writing, and completed questionnaires measuring modern and old-fashioned prejudice, intergroup anxiety, perceptions of outgroup variability, and their support for an Indigenous-related petition. Participants also had an opportunity to sign this ostensibly real petition, providing a more behavioural measure of their support for this cause. These measures were filled out for a second time at a four-week follow-up ($n = 212$). Results showed that the imagined contact intervention had no effect on participants' attitudes, emotion, or behaviour at either Time 1 or Time 2. That is, participants who imagined a positive interaction with an Indigenous person, as compared to a person of an unspecified racial background, evinced the same levels of prejudice, anxiety, and petition support. A thorough analysis of the qualitative data showed that participants in the Indigenous condition had significantly less positive interaction experiences than those in the control condition. Further analysis also produced two major themes: 1) Indigenous culture and identity, and 2) racism. The first theme encompassed discussion of a) traditions, b) the opportunity to learn about Indigenous culture, c) reserves, and d) intergroup tensions, while the second theme included a) participants making racist comments, b) their understandings of racism, and c) hardships faced by Indigenous people. Overall, imagined contact's failure to reduce prejudice and other forms of negativity towards Indigenous people indicates that more tailored intervention strategies are needed in this particular context.

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Chapter 1: Introduction

Prejudice towards Indigenous peoples in Canada remains a deeply entrenched phenomenon. Defined as "an unjustified, usually negative, attitude directed towards others because of their social category or group membership" (Sampson 1999, p. 4), prejudiced attitudes continue to plague Canada, a nation that ostensibly affirms and celebrates multiculturalism. The negativity directed toward Indigenous persons has created numerous inequities and violations of human rights; for instance, persons of Indigenous descent face poorer conditions in the domains of health and life expectancy, housing, employment, educational attainment, and the experience of violence compared to non-Indigenous Canadians (Statistics Canada, 2015).

The roots of these inequities can be traced back to colonialism and aggressive assimilation policies. Perhaps the clearest example of this is the Indian Residential School (IRS) system. Based upon biased understandings of Indigenous cultures, colonizers assumed what has been referred to as "White man's burden" and took over the education of "the uncivilized and unchristianized Indians of this country" (Harding, 2006, p. 208). The IRS system, run by the Canadian government in conjunction with churches of various Christian denominations from 1883 to 1996, mandated the attendance of Indigenous children at schools located a distance from their home communities (Bombay, Matheson, & Anisman, 2011). The IRS system was a traumatic experience in a physical, psychological, and cultural sense for thousands of Indigenous children, their immediate and extended family members, and their communities more broadly (Bombay et al., 2011). The effects of experiencing such a harsh environment may often be transmitted to younger generations. Indeed, Bombay, Matheson, and Anisman (2014) found that having a parent survivor of the IRS system predicted increased depressive symptoms and suicidal ideation, and decreased school success compared to age-matched Indigenous persons who did not have a parent attend an IRS.

1.1 Contemporary Reconciliation Efforts

A number of steps have been taken in recent years to begin addressing the harmful legacy of the IRS system. In 2008, then Prime Minister Stephen Harper issued an official government apology for the abuses committed within the IRS system, a system whose very foundation was built on prejudice and discrimination toward Indigenous persons as well as a singular focus on assimilation (CBC News, 2008). In that same year, the Truth and Reconciliation Commission

(i.e., TRC; a professional body dedicated to documenting the IRS experience, informing Canadians, and inspiring reconciliation) was established and, in June 2015, the findings of the TRC's 7-year long inquiry were published. In this profound document were 94 calls to action designed to redress the damaging legacy of the IRS system (Truth and Reconciliation Commission of Canada, 2015). Further, in 2016, Canada finally adopted the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), which outlines the responsibility for states to protect Indigenous peoples from human rights abuses and put an end to the inequities they experience and their marginalization (Fontaine, 2016; United Nations, 2007). It should be noted that, in 2007, when the vote for UNDRIP was originally brought forth by the UN General Assembly, Canada was one of only four nations that did not support the move to eliminate inequities for Indigenous persons, a vote that stood in stark contrast to the 144 other nations around the globe that adopted UNDRIP. The federal government at the time cited the articles involving resource development and land ownership as a primary concern, as well as its ostensible conflict with the Canadian Charter of Rights and Freedoms (CBC News, 2007).

The apology, Truth and Reconciliation Commission, and adoption of the UNDRIP point towards an increased level of awareness of the issues Indigenous people face, as well as enhanced intentions towards ameliorating the vast inequities that exist between Indigenous and non-Indigenous persons in Canada. Despite Indigenous persons being characterized as the most marginalized ethnic group in contemporary Canadian society (Waldram, Herring, & Young, 2006), anti-Indigenous prejudice, one of the key linchpins supporting the structural, institutional, and interpersonal violence that is directed toward Indigenous men, women, and children, has not received widespread attention from social scientists. Indeed, the body of literature on anti-Indigenous prejudice is growing quite slowly, with research on the *reduction* of anti-Indigenous prejudice being absent (Morrison, Morrison, & Borsa, 2014). The purpose of the present study is to focus on the reduction of anti-Indigenous prejudiced attitudes through employment of a technique referred to as the imagined intergroup contact paradigm.

1.2 Anti-Indigenous Prejudice and Discrimination in Canada

1.2.1 Anecdotal accounts of anti-Indigenous prejudice and discrimination. The hostility and negative attitudes foundational to the IRS system have lingered to the present day, producing ample evidence of contemporary prejudice and discrimination. Below is a brief overview of some of the reports of everyday discrimination and prejudice experienced by

Indigenous persons in Canada. Kristen Standing on the Road, a Cree small business owner, recalled having her business license application denied by Service Ontario with the explanation to "please clarify your last name" and to fax in a new copy of the application (Cram, 2016). Standing on the Road also relayed the humiliating experience of an office assistant in an optometrist's office taking her identification, going around the office and showing all of her co-workers and then "…she was like, 'Look at the last name, isn't it funny?'" (Cram, 2016). Non-Indigenous persons ridiculing Indigenous persons for their names is not uncommon, and Standing on the Road explains that incidents such as these are hurtful "reminders of how little Canadians know about First Nations culture and surnames" (Cram, 2016).

Marc Frenette, an Indigenous mechanic working in the Canadian Forces, recently launched a class action lawsuit in order to address the persistent race-based prejudice and discrimination he faced from co-workers. Taunts and threats of violence toward Mr. Frenette were prevalent. According to the statement of claim, "he was called 'lazy' and told he 'abused the system' because that's 'what all Aboriginal people do;' he was asked if his wife got drunk before sex because 'a drunken Indian is a better lay;' and other members would pat their hands against their mouths and state, 'oh, oh, oh,' when he passed" (Fedio, 2016). Escalating this trend, Frenette described being threatened by a co-worker, "who held a lighter between [his] legs and told other members, 'time to burn this Indian before he burns any more wagons'" (Fedio, 2016). When reporting the abuse to his superiors, "he was told to 'laugh it off'" (Fedio, 2016).

Racist behaviour does not only stem from cultural ignorance; it can also be enacted when individuals do not appear "overtly" Indigenous on the basis of characteristics such as skin colour. Daniel Bear, a mixed-race Indigenous and English man from Winnipeg, recounts: "I was driving downtown in a car with some friends and they pointed at a group of homeless people and called them 'dirty Indians' but said 'don't worry, Daniel, you're not like that.' It kind of felt like betrayal" (Deerchild, 2016). It is plausible that blatant displays of racist attitudes in front of lighter-skinned Indigenous persons such as Bear are quite common, as lighter-skinned individuals do not appear outwardly to be of Indigenous descent (Deerchild, 2016). Indeed, Lawrence (2004) discusses the widespread prejudice often communicated in front of lighter-skinned Indigenous persons as a result of these individuals not mirroring stereotypic representations of Indigenous men and women.

Lastly, Denis (2015) conducted a multi-method ethnography in a small Ontario town with a mix of White and Indigenous residents. A particularly vivid account was relayed by Simon, a local white-appearing First Nations man in his late 20s, who recounted his high school tryout for the hockey team. The assistant coach, who was also his history teacher, failed to look up at Simon during roll call, and when challenged about this disrespect, Simon was forced outside, grabbed by the collar, thrown against a locker, and told, "Listen here, you fuckin' Indian: You're not makin' my hockey team and you're not passin' my class!" (Denis, 2015, p. 229). The experience was the deciding factor in Simon ending his participation in both school and hockey, and temporarily led him to deny his Indigenous background. This story is only one of over 200 Denis was told, wherein over 90% ($n = 142$) of his Indigenous participants reported facing racial discrimination in at least one setting (Denis, 2015).

Due to the vast discrimination and prejudiced sentiments directed toward Indigenous persons, Canada's national broadcaster, the CBC, has now had to eliminate the ability of readers to comment on online news stories involving Indigenous people (Office of the GM and Editor in Chief, 2015). To further support their decision, the CBC released a sample of the hateful comments that had been posted in relation to Indigenous persons. One read: "They used to feed off the buffalo, now they feed off the white European;" with another stating "Strange how the choices and ways aboriginals choose to live their lives are always the fault of government, plice [*sic*] or the white man in general. Maybe if you didn't drink, do drugs, prostitution, etc.... you wouldn't get murdered" (CBC News, 2015). While the anonymity afforded online readers arguably has an important influence on comments' tone and content, it appears that prejudiced discourse regarding Indigenous persons is seen as socially normative by a segment of the Canadian population.

One of the ways in which prejudice can be partitioned is into that of two distinct forms: 1) old-fashioned bias that is a result of perceived inherent, characterological differences between groups (e.g., Indigenous Canadians are less intelligent than White Canadians); and 2) modern bias that is a result of contemporary objections to the social group and its place in broader society (e.g., Indigenous Canadians are pushing too hard for economic and/or political power). Below is a brief overview of research on anti-Indigenous biases documented by researchers in the social sciences.

1.2.2 Empirical documentation of anti-Indigenous prejudice. The extant psychological literature on anti-Indigenous prejudice can be broken into two major types: old-fashioned and modern. Old-fashioned prejudice is overt and blatant, and reflects an undisguised hostility toward a minority group that is based typically on perceived characterological differences (e.g., the minority group's inferior intelligence and physical characteristics; Sears, Van Laar, Carrillo, Kosterman, 2004). Modern prejudice is more subtle and covert, and is based typically on the following beliefs: 1) the minority group is making unnecessary demands to change the status quo; 2) the minority group exaggerates their identity to the point of isolating themselves from the mainstream; 3) the minority group uses their identity to secure special treatment from governments or other institutions; and 4) discrimination against the minority group no longer occurs (Morrison, Morrison, Harriman, & Jewell, 2008).

Biases towards Indigenous people have also been studied from a stereotyping perspective. Stereotypes, which are socially shared, automatic, taken for granted beliefs about a group (Gardner, 1994), can fall into either old-fashioned or modern categories. This proved the case in Ly and Crowshoe's (2015) focus group study with 38 undergraduate medical students in Canada. Using a thematic analysis, the authors found that medical students' stereotypes about Indigenous people were used as a frame of reference in their dealings with Indigenous patients. That is, stereotypes were thought to ostensibly provide useful information that enhanced their functionality in the medical setting. For instance, one participant felt that the stereotype that Indigenous people have many children was a useful assumption to make in the case of contagious conditions and the need to treat each member of an affected household.[1] The students also named home and school environments as negatively influencing their views of Indigenous people.

While many participants desired better curricula and training on Indigenous issues, othering[2] and opposition to affirmative action in medical schools were prevalent. The former manifested in participants' emphases on the differences between Indigenous and "mainstream" Canadian culture, as well as the differences between themselves and the Indigenous friends and

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[1] It should be noted that the medical students could be trained to ask a respectful question such as "Do you have children;" rather than assuming the stereotype that all Aboriginal women have a large number of children" is true. Further, making the latter assumption elides various identities (e.g., women who are child-free by choice).

[2] Othering is defined here as the discourse drawn upon by members of a dominant group that position their group as standard or normal, and all others as different and in deficit, which works to reinforce inequality (Frankenberg, 1993; Schwalbe et al., 2000).

acquaintances they had made throughout their lives. Participants also criticized universities that reserved spaces for Indigenous students in medical programs. Lastly, the authors noted the use of faux "egalitarian" discourses whereby dismissal of Indigenous-specific needs in the health care system was viewed as appropriate due to the relatively small population of Indigenous people in Canada (i.e., rather than taking an equity-focused approach, participants asserted that Indigenous issues need not be a focus in medical school curricula any more than issues pertinent to other small minority groups; Ly & Crowshoe, 2015). The latter two themes align clearly with modern prejudice in that they are more covert forms of negativity directed towards Indigenous people. Despite its lack of a formal measure of prejudice, Ly and Crowshoe's (2015) study illuminated potential biases in our health institutions. If future medical professionals rely on stereotypes to guide their practice, Indigenous patients will likely receive lower-quality care.

Corenblum and Stephan (2001) similarly investigated stereotypes, but also focused on prejudice more broadly. Like all but one of the studies described in the remainder of this section, the researchers included elements of both old-fashioned and modern prejudice. In their study, 110 White Canadian university students took part. Results showed that many participants believed Indigenous people do not face inequality, and that they are "uneducated, lazy, aggressive, and continuously causing trouble" (Corenblum & Stephan, 2001, p. 261). The measure used to capture attitudes towards Indigenous people was affective in nature, requiring participants to indicate, for instance, their hostility, admiration, and dislike on a scale ranging from 0 (e.g., *No hostility at all*) to 9 (e.g., *Extreme hostility*). The sample mean for the measure was relatively low, and there was a strong positive correlation of the measure with that of stereotyping ($r = .52$).

Old-fashioned prejudice was the main focus in a study by Beaton, Dovidio, and LeBlanc (2011), which examined the linkage between "traditional" (old-fashioned) prejudice and decisions regarding sentencing and rehabilitation capacity of mock Indigenous and White defendants in Canada. Results showed moderate disagreement on items signifying tolerance and acceptance of Indigenous persons; that is, the sample, on average, displayed a moderate amount of prejudice. Moreover, greater prejudice against Indigenous people was associated with favouring the White defendant as a candidate for rehabilitation, and that for those low, but not high, in bias suppression, prejudice was positively related to Indigenous sentencing (Beaton et al., 2011).

Some additional studies involving old-fashioned and modern anti-Indigenous prejudice integrate both these constructs while not formally claiming to measure them. For instance, in an early study conducted by Langford and Ponting (1992), the researchers examined bias toward Indigenous persons with 1,834 non-Indigenous Canadians in a nation-wide random sample. The authors employed a two-item measure of general prejudice, with the items appearing to be reflective of the old-fashioned type (i.e., "The more I hear and see about Indians in the news media the less respect I have for them" and "Indians are a bunch of complainers"; Langford & Ponting, 1992, p. 164). The total mean scale score was below the midpoint, suggesting low or moderate levels of negativity. However, additional analyses provided a more rich understanding of the data. For instance, prejudice, economic conservatism (just world and victim blaming beliefs), and perceived intergroup conflict (regarding the supposed power and undue financial assistance granted to Indigenous peoples by governments, which overlaps with the modern prejudice construct) emerged as strong predictors of opposing Indigenous self-government and autonomy, and prioritization by the Canadian government.

Similarly, Harell, Soroka, and Ladner (2014) did not explicitly measure old-fashioned and modern prejudice; however, the latter construct provided a clear frame of reference for the researchers' examination of the racialization of welfare in Canada. In this study, a representative sample of 767 Canadian respondents read a fictional vignette describing a man of either Indigenous or unspecified background applying for welfare. Participants were then asked whether they supported the target receiving welfare support, which was measured using a 4-point item ranging from 1 (*strongly support*) to 4 (*strongly oppose*). Other variables included an Indigenous-focused feeling thermometer, general support for welfare, and demographics (e.g., gender, age, education, income, and region). Results showed no main effect of the racial background on targets' deservingness of welfare. However, participants who tended to make positive assessments of Indigenous people in general also supported welfare, on a general level. In addition, those who had negative attitudes toward Indigenous people were more highly affected by racial cues when making decisions about the deservingness of welfare recipients. That is, participants with more negative attitudes towards Indigenous people showed even less support for welfare when the target was cued as Indigenous compared to when the target was cued as non-Indigenous (Harell et al., 2014).

Denis (2015) was similarly reliant on a feeling thermometer as his quantitative measure of prejudice. Within an 18-month ethnography in a small Ontario town, surveys were completed by 160 participants[3]. These results showed that White participants were successively more negative, on feeling thermometer measures ranging from 1 (*strongly negative*) to 5 (*strongly positive*), towards First Nations and Métis people in general, Indigenous leaders, Indigenous people receiving tax exemptions, and Indigenous protesters as compared to Canadians more broadly. Interestingly, this trend remained the same for White participants who reported having at least one close Indigenous friend. As well, White participants were significantly more likely than Indigenous participants to rate cultural inferiority, instead of socio-historical factors, as the main explanation for Indigenous poverty, and to see then Prime Minister Stephen Harper's IRS system apology as a sign that Indigenous people need to move on, instead of perceiving it as a first step in a reconciliation process. Denis (2015) concluded that, despite decreases in old-fashioned racist views and increases in intergroup contact in this setting, anti-Indigenous prejudice remains a deeply entrenched phenomenon that supports a sense of white superiority.

Departing from the trend of measuring, but not explicitly claiming to measure, both old-fashioned and modern prejudice, Morrison et al. (2008) developed the Modern and Old-Fashioned Prejudiced Attitudes toward Aboriginals Scales (M-PATAS and O-PATAS, respectively), the psychometric properties of which will be further discussed. Building on this work, Morrison et al. (2014) used a sample of student and non-student Saskatchewan residents to examine additional correlates of old-fashioned and modern prejudice. Despite the harshness of the old-fashioned measure of prejudice, an alarmingly high percentage of participants endorsed its items. For example, 32% agreed that "Most Aboriginal people cannot take care of their children," 40% agreed that "Most Aboriginal people sound drunk," and 63% agreed that, "Drug abuse is a key problem among Aboriginal people" (Morrison et al., 2014, p. 1006). Similarly, on the authors' measure of modern prejudice, 35% agreed that "Aboriginal people should stop complaining about the way they are treated, and simply get on with their lives," and over 40% of participants agreed that "Aboriginal people seem to use their cultural traditions to secure special rights denied to non-Aboriginal Canadians" (Morrison et al., 2014, p. 1007). Bivariate analyses showed that prejudice against other minorities, right-wing authoritarianism (a triad of submission

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[3] Given the length and depth of Denis' (2015) study, many of his findings, particularly those of a qualitative, observation-based nature, lie beyond the scope of this review; only survey results are summarized here.

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to authority, conventionalism, and aggression towards norm violators; Altemeyer, 2004), and social dominance orientation (the desire for social hierarchy and willingness to behave unethically in order to improve one's social status; Pratto, Sidanius, Stallworth, & Malle, 1994) significantly and positively correlated with anti-Indigenous prejudice. Lastly, empathy was negatively correlated with prejudice toward Indigenous persons (Morrison et al., 2014).

Similarly building on the work of Morrison et al. (2008), Lashta, Berdahl, and Walker (2016) investigated the relationship of general versus quality contact with racial attitudes towards Indigenous people in Canadian prairie cities. The authors had telephone interviews, using random digit dialing, conducted to measure modern and old-fashioned racism, contact quantity and quality, gender, age, ethnicity, religiosity, education level, income level, employment status, and individualism. Across seven prairie cities, 2969 people participated. As with previous studies (e.g., Morrison et al., 2008; Morrison et al., 2014), the authors found greater support for modern than old-fashioned racism. Analyses also revealed a significant negative correlation between having an Indigenous friend or family member and scores on both types of racism. In addition, greater general contact with Indigenous people, defined as "casual, interpersonal interactions" (p. 1246), was associated with less racist sentiment. However, when demographic and other variables (individualism and exceptionalism, the belief that Indigenous people have unique rights beyond that of other minority cultures in Canada) were taken into account, general contact was only a significant predictor of old-fashioned racism, whereas personal contact, defined as "friendship or familial relationships" (p. 1246), remained a significant predictor for both forms (Lashta et al., 2016).

1.2.3 Measuring anti-Indigenous prejudice. At present**,** the literature on anti-Indigenous prejudice in Canada lacks consistently high-quality measurement practices. For instance, many studies do not include any reports of their measures' psychometric properties (e.g., Langford & Ponting, 1992). Others provide little justification for a scale's use. For example, Corenblum and Stephan (2001) used 12 evaluative adjectives to form their prejudice scale, and justified its use on the basis that it had been employed in previous research. Both Beaton et al. (2011) and Lashta et al. (2016) adapted previously-developed scales from different social groups and geographical regions. For the former, the researchers used ten items from Lepore and Brown's (1997) 15-item scale measuring prejudice towards Black people in the United Kingdom (e.g., "If many Black persons moved to my neighbourhood in a short period of

time, thus changing its ethnic composition, it would not bother me," p. 287). To measure modern prejudice, Lashta et al. (2016) used three items from three different sources (i.e., Morrison et al., 2008; Kinder & Sanders, 1996; and Atkinson, Berdahl, McGrane, & White, 2012). No rationale was provided for this approach. Similarly, no justification was given for the researchers' single-item measure of old-fashioned prejudice, which was created from two distinct sources (i.e., McConahay, 1986; and Durrheim, Baillie, & Johnstone, 2008). Lastly, Harell et al. (2014) and Denis (2015) both rely primarily on feeling thermometers as their measure of prejudice, which may not adequately capture the range and nuance of anti-Indigenous prejudice as a whole (DeVellis, 2012). That is, the content validity of single-item measures is doubtful. Overall, scales measuring anti-Indigenous prejudice tend to lack a rationale for their use, context specificity, and psychometric soundness.

To fill this gap in the literature, Morrison et al. (2008) developed the Modern and Old-Fashioned Prejudiced Attitudes toward Aboriginals Scales (M-PATAS and O-PATAS, respectively). These scales were developed in accordance with best practices in the field, including the generation of myriad items ($N = 144$), participant interviews, and a review of existing theories and literature on the topic of anti-Indigenous bias (DeVellis, 2012). Specifically, items were categorized into an old-fashioned stream (i.e., perceptions of inferiority of Indigenous people) and modern stream (i.e., Indigenous people overemphasize their cultural background, demand unnecessary changes to the status quo, receive special treatment from institutions such as governments, and are not truly the targets of discrimination; Morrison et al., 2008). With a sample of 491 undergraduate students, the authors completed factor analysis of the items, and also tested for various types of validity. Results showed evidence of strong psychometric soundness of the final 11-item (O-PATAS) and 14-item (M-PATAS) scales, as well as three types of validities. Morrison et al. (2008) concluded that the two scales represent preliminarily reliable and valid measures of prejudice towards Indigenous people in Canada. Evidence regarding the scales' soundness and validity were replicated by Nesdole, Lepnurm, Noonan, and Voigts (2015). They found that the measures positively correlated with right-wing authoritarianism and social dominance orientation, and had strong alpha values. It appears that the O-PATAS and M-PATAS are the only theoretically-derived, multi-item measures of anti-Indigenous bias with evidence of their psychometric soundness. As such, they were used in the present study to ascertain the prevalence and extent of anti-Indigenous prejudice.

Despite the extent of anti-Indigenous discrimination, stereotypes, and prejudice outlined in the previous sections, no published psychological studies investigating prejudice *reduction* in this context appear to exist. The present study employed the imagined contact paradigm for this purpose due to its strong theoretical foundation (Pettigrew & Tropp, 2006), promising early body of results (Miles & Crisp, 2014), and potential for application in real-world scenarios (e.g., Stathi, Cameron, Hartley, & Bradford, 2014). An overview of the imagined contact paradigm will now be provided.

1.3 Imagined Intergroup Contact

The imagined contact paradigm grew out of Allport's (1954) original theory of intergroup contact. Allport's (1954) theory of intergroup contact stipulates that:

> Prejudice (unless deeply rooted in the character structure of the individual) may be reduced by equal status contact between majority and minority groups in the pursuit of common goals. The effect is greatly enhanced if this contact is sanctioned by institutional supports (i.e., by law, custom, or local atmosphere), and provided it is of a sort that leads to the perception of common interests and common humanity between members of the two groups. (p. 281)

The evidence in support of Allport's theory is extensive (Pettigrew & Tropp, 2006) and, due to its robustness, researchers began proposing logical extensions of Allport's theoretical work. Specifically, in 2009, Crisp and Turner asserted that simply imagining positive contact with an outgroup member could be an effective, low-barrier, non-threatening means of preparing individuals for future in-person contact. That is, an imagined intergroup contact scenario could lead to reduced intergroup anxiety, improved explicit and implicit (subconscious) attitudes, more positive and frequent approach tendencies, and enhanced future contact self-efficacy (i.e., the belief in one's ability to have a successful intergroup interaction; Miles & Crisp, 2014). The latter meta-analysis showed that the average effect size (Cohen's *d*) for published imagined contact studies is .35, indicating a small to medium effect (Cohen, 1988).

1.3.1 Empirical literature on imagined contact. Turner, Crisp, and Lambert (2007) first demonstrated the imagined contact effect using a sample of 28 young undergraduate students. The students received instructions to imagine, for one minute, either an interaction with an elderly person, or a pleasant outdoor scene. Those in the imagined contact condition encountered the following instructions: "We would like you to take a minute to imagine yourself meeting an

elderly stranger for the first time. Imagine their appearance, the conversation that follows and, from what you learn, all the different ways you could classify them into different groups of people" (Turner et al., 2007, p. 431). Participants in the control condition were told: "We would like you to take a minute to imagine an outdoor scene. Try to imagine aspects of the scene about you (e.g. is it a beach, a forest, are there trees, hills, what's on the horizon)" (Turner et al., 2007, p. 431). This instruction has become the standard for control conditions when using the imagined contact paradigm.

Following the imagery exercises, participants listed traits of the elderly person or outdoor scene, respectively, and all completed an ostensibly unrelated measure of intergroup bias. This measure consisted of two items on which participants indicated their favourability (1 = *not at all*, 9 = *very much*) toward working with a younger conversation partner and an older conversation partner. Results showed a significant interaction between condition and target of bias, where those in the control condition significantly favoured the ingroup (i.e., young people), but those in the imagined contact condition showed no positive or negative biases (Turner et al., 2007).

To eliminate the possibility that these effects were due to priming, Turner et al. (2007) conducted a second experiment in which 24 young undergraduate participants were instructed to imagine either interacting with an elderly person, or simply thinking about an elderly person. Analyses on the same measure of intergroup bias revealed identical results; those in the imagined contact condition showed no intergroup bias, unlike their counterparts in the control condition (Turner et al., 2007). In an effort to provide evidence as to the potential generalizability of the imagined contact effects, Turner et al. (2007) successfully replicated the results of the first two experiments with gay men as the target outgroup, and male heterosexual undergraduates as participants. They also found that imagining contact with a gay man significantly reduced anxiety and increased perceived outgroup variability of the social category "gay men" (Turner et al., 2007).

Three years later, an important methodological modification was made to the imagined intergroup contact study protocol. Husnu and Crisp (2010) hypothesized that elaboration and the subsequent vividness of an imagined scenario might enhance the effect of imagined contact. In their first study, 60 British, non-Muslim undergraduates participated in either a standard or "enhanced" imagined contact exercise. The former group was instructed to imagine meeting a Muslim stranger and learning more about them. The latter group was given more elaborate

instructions: "imagine when (e.g. next Thursday) and where (e.g. the bus stop) this conversation might occur" (Husnu & Crisp, 2010, p. 946). All participants completed measures of prior contact with British Muslims[4], as well as imagined contact vividness (e.g., "The imagined contact scenario in my mind is lively"), future contact anxiety (e.g., "In a future interaction with a British Muslim, I will feel tense"), general attitudes towards British Muslims (e.g., "I feel trusting towards British Muslims"), and future contact intentions (e.g., "How much do you expect to enjoy interacting with British Muslims in the future?).

Results indicated that participants in the elaborated condition had significantly greater intentions to engage in future contact, more positive intergroup attitudes, and lower intergroup anxiety than those in the standard condition (Husnu & Crisp, 2010). The authors also found that the effects of future contact intentions were mediated by the vividness of the imagined scenario, which was significantly higher in the elaborated condition (Husnu & Crisp, 2010).

In a follow-up study, Husnu and Crisp (2010) found further support for the effectiveness of the enhanced manipulation. In this study, 60 additional undergraduate participants were placed in the elaborated or standard imagined contact groups, this time with an elderly person as the target. After having engaged in the imagined contact exercise, participants returned to the laboratory the next day and were asked to report on the ease and confidence with which they could recall the imagined contact scenario. Results indicated that those in the elaborated condition could recall the previous day's scenario significantly better than those in the standard condition, leading the authors to conclude that more elaborate instructions create a more accessible cognitive script from which to draw (Husnu & Crisp, 2010).

Using imagined contact to reduce prejudice, Brambilla, Ravenna, and Hewstone (2012) investigated whether the imagined contact technique could influence attitudes towards a wide variety of social groups along Fiske, Cuddy, Glick, and Xu's (2002) warmth and competence dimensions of the Stereotype Content Model. Conducted in Italy with a sample of 123 domestic university students, the study had participants imagine either a pleasant outdoor scene, or an interaction with someone from Albania, Canada, China, or Peru. After imagining their scenario, all participants rated the warmth and competence of the outgroup to which they were randomly assigned. Results indicated that the imagined contact condition led to all four targeted outgroups

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[4] This specifically measured contact quantity (e.g., "In everyday life, how frequently do you encounter British Muslims?") and quality (e.g., "Is your contact with British Muslims more intimate or distant?").

being placed in the high warmth and high competence quadrant, compared to the generally lower levels of warmth and competence indicated by participants in the control condition (Brambilla et al., 2012).

Imagined contact also has been efficacious when used outside the laboratory context. For example, Stathi et al. (2014) developed a 3-session, 3-week imagined contact-based intervention for White schoolchildren in England. Overall, 129 students, ages 7 to 9 years old, took part. Children interacted with the researcher individually and were given photos of an outdoor location and related objects, themselves, and an Asian child. Participants also received information about the child featured in the picture. They were then asked to create a story based on the interaction with their "new friend" from the photograph in the pictured setting (Stathi et al., 2014, p. 539).

One week after the final session, the researchers interviewed all participating children in order to measure perceived similarity between the outgroup (Asian children) and ingroup (White children), traits pertaining to the outgroup and ingroup, and willingness for future contact with the outgroup and ingroup (example item: "How much would you like to play with this child?"; Stathi et al., 2014, p. 540). Results indicate that participants in the experimental condition reported significantly greater similarity between the self and the outgroup, attributed more positive traits to the outgroup, and showed greater willingness to engage in future contact with an outgroup member compared to those in the control condition (Stathi et al., 2014). The authors concluded that imagined contact represents a low-cost, efficacious intervention strategy in schools, while cautioning that developmental theory regarding age differences should be kept in mind for future implementations.

To date, studies that involve imagined contact have been shown to reduce intergroup anxiety and prejudice, and enhance potential for positive future contact with outgroup members. Though the body of research is promising, the imagined contact literature also points to a number of limitations that researchers should consider in future investigations using the paradigm. Below, a brief overview of the critiques of the imagined contact paradigm is presented.

1.3.2 General critique of imagined contact research. First, researchers have pointed to studies such as Stathi and Crisp's (2008), which show no difference between the type of control condition employed, as justification for the continued use of a control that involves imagining a pleasant outdoor scene. Further, Miles and Crisp (2014) maintain that using this particular

control condition produces the greatest average effect size for imagined contact, but do not highlight the subsequent methodological implications of this choice. Specifically, using a control scenario that bears little resemblance to the imagined contact experimental condition could be skewing a comprehensive understanding of the paradigm's actual effectiveness. That is, most imagined contact researchers have participants imagine a pleasant outdoor scene. In contrast, Hoffarth and Hodson (2016) had control condition participants imagine interacting with a person of an unspecified background as compared to participants in the experimental condition, who imagined interacting with a gay man, lesbian woman, or Muslim person. Having used this more stringent control condition, imagined contact had no direct, significant effects on any of the dependent variables. To address the possible limitation of the "outdoor scene" control condition, the present study had participants imagine interacting with a stranger of unspecified social background instead.

Second, many researchers conducting imagined contact studies note that the endorsement of prejudiced attitudes in their samples are not overly high (e.g., Turner et al., 2007), and often take place outside of a prejudice-laden context (e.g., Stathi et al., 2014). It is unknown, then, whether the effects of the imagined contact intervention would endure in other contexts where prejudice may be more pronounced. The present study uses Indigenous people in Canada as the evaluative outgroup of interest, which should lead to this boundary being tested.

Third, few studies to date have assessed behavioural outcomes within the imagined contact paradigm; indeed many focus on attitudes and often rely on 1-3 item measures to test the boundaries of the imagined contact effect. To address this concern, the present study used a behavioural measure assessing whether people would sign a petition in support of a pro-Indigenous policy.

Fourth, with respect to the longevity of the imagined contact effect, few studies have incorporated any period of follow-up. Indeed, researchers that did examine effect longevity did so after 24 hours (Husnu & Crisp, 2010), one week (Vezzali, Capozza, Giovannini, & Stathi, 2011; Vezzali, Capozza, Stathi, & Giovannini, 2012), or two weeks (Vezzali et al., 2015). The effects endured through all of these timeframes; however, it remains to be seen whether the laboratory-based imagined contact effects persist beyond a two week block of time. To test the longevity of the imagined contact effects in the present study, a follow-up interval of

approximately four weeks (i.e., one month) between Time 1 and Time 2 measures was implemented.

A final critique of the imagined contact literature involves its applicability to real-world scenarios. Major researchers in the field address this concern by stating that imagined contact is intended primarily to provide a pathway for future direct contact, which would then work to reduce prejudice and discrimination (Miles & Crisp, 2014). Indeed, the frequent measurement of contact intentions and prejudiced attitudes aligns with this logic. However, Dixon, Durrheim, and Tredoux (2005) contend that a focus on the prejudiced individual is not necessarily the optimal approach for ensuring social change and, in so doing, call into question the "pathway" approach espoused by mainstream imagined contact researchers. Indeed, Dixon et al. (2005) assert that the "theoretical individualism" of the contact paradigm in general ignores the ideological, institutional, and sociohistorical bases of prejudice and discrimination. This issue is a crucial one for researchers hoping to apply their work from a social change perspective.

In light of the concerns raised by Dixon et al. (2005), the present study incorporated a behavioural measure assessing support for Indigenous-relevant policies. This assessment was designed to complement the more traditional attitudinal measures of prejudice and intergroup anxiety used in the imagined contact field, and meant to aid in combatting the theoretical individualism highlighted by Dixon et al. (2005). It is recognized that major changes in national policy-making are necessary in order to bring about greater intergroup harmony and equality. Such changes are often facilitated by shifts in public opinion, which, in turn, foster political will to achieve certain end goals. As such, understanding how prejudice reduction interventions can influence policy preferences is a valuable exercise despite its seemingly "micro" level of analysis.

1.4 Incremental Advancements of the Present Study

The present study advances research on elaborated imagined contact on theoretical and methodological fronts. Firstly, the study employs a behavioural measure of Indigenous-relevant policy support to complement the more traditional attitudinal measures of prejudice and intergroup anxiety. Secondly, many of the imagined contact studies have used the "imagine a pleasant outdoor scene" scenario for the control condition. To create the most stringent test of the imagined contact paradigm, the control condition used the "unknown stranger" scenario for the control condition. It is presumed that this methodological advance can provide a more rigorous

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assessment of the power of the imagined contact condition and inform the extant body of research. Thirdly, the present study furthers testing of the boundaries of the imagined contact effect by extending the time delay between the initial laboratory task and the second time point of measurement. One month was used in this case, representing a delay twice as long as any previous investigation of this type. In a therapeutic context, researchers have found that guided imagery and music therapy produces positive effects in patients after a 6-week time delay (McKinney, Antoni, Kumar, Tims, & McCabe, 1997). Fourthly, the issue of demand characteristics was also addressed. To disguise the study's purpose, advertisements and the informed consent form reported the study's title as "Imagery effects on social attitudes." As well, scales relating to several ideologies, such as belief in a just world and system justification, and non-relevant outgroups, such as gay men, Muslims, and immigrants, were used to distract from the study's Indigenous focus. The petition measure was also presented to participants as though it were a separate, lab-based initiative rather than a component of the study itself. These procedures were implemented so as to limit participants' ability to infer the experimental hypotheses.

Finally, an intriguing omission in the extant imagined contact literature has been the relative neglect of the qualitative data provided by participants when queried about what their imagined interaction entailed (i.e., what are participants' initial impressions of the stranger with whom they are to imagine interacting). Although many researchers require participants to write down their experiences of the imagined interaction, they have thus far been used only as a manipulation check, despite the potential wealth of data they represent[5]. Therefore, the text produced by participants was analysed in order to more richly understand how prejudiced attitudes may be reduced when using the imagined contact paradigm.

In all, the purpose of the present research was to build upon the imagined contact literature by addressing a sorely neglected area; namely, the reduction of prejudice towards Indigenous people in Canada. The employment of a mixed methods and mixed design framework, along with the inclusion of a behavioural measure, stringent control group instructions, and lengthier interval between Time 1 and 2 testing periods heightened the distinctiveness of the research proposed and its potential contribution to the imagined contact field.

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[5] For a noteworthy exception, see West, Holmes, and Hewstone (2011), who rated the descriptions based on valence.

1.5 Hypotheses and Research Questions

Five hypotheses that pertain to the quantitative data and two research questions that pertain to the qualitative data were generated. They are:

- H_1: Participants in the experimental condition will score significantly lower on the intergroup anxiety scale, and significantly higher on the outgroup variability and petition support scales immediately following the imagery exercise, compared to those in the control condition.

- H_2: Participants in the experimental condition will score significantly lower on the M-PATAS and O-PATAS scales immediately following the imagery exercise, compared to those in the control condition.

- H_3: Participants in the experimental condition will be significantly more likely to sign the petition, immediately following the imagery exercise, compared to those in the control condition.

- H_4: The significant effects outlined in Hypotheses 1, 2, and 3 will persist at the second time of measurement, approximately one month after the participants' initial session.

- H_5: At both time points, scores on the M-PATAS and O-PATAS will significantly correlate with petition signatures, such that participants who score highly on the prejudice measures will be less likely to sign the petition.

- RQ_1: What is the valence of the accounts provided by participants who have imagined interacting with an Indigenous stranger compared to a stranger of unspecified ethnic background?

- RQ_2: What themes are present in participants' accounts of their imagined contact with an Indigenous stranger, that specifically relate to this ethnic background?

In addition, a two-part *post hoc* hypothesis was tested – that participants, regardless of condition, would score significantly lower on intergroup anxiety, modern prejudice, and old-fashioned prejudice, and would score significantly higher on the outgroup variability and petition support measures immediately after the imagined contact exercise compared to the second time of measurement, which took place four weeks later. Imagined contact may cause participants to experience a general positivity towards outgroups that would be expected to fade over time.

Chapter 2: Method

2.1 Participants

Four hundred eighty two individuals clicked on the Part 1 survey link and were therefore recorded by the FluidSurveys platform to have entered the survey domain. Of these, 167 cases were removed due to incompletion rates[6] greater than 5%, including 31 Indigenous participants who were automatically filtered out of the study. In addition, seven cases were removed due to participants' failure to answer the manipulation check questions correctly, a result of individuals who were assigned to the Aboriginal condition but imagined a non-Aboriginal interaction partner, as well as those who did not provide written details about the interaction with an Aboriginal or non-Aboriginal person altogether. One additional participant was removed as she was known to the researcher and disclosed having prior knowledge of the study and its purpose to the participant pool coordinator. No participants were removed from the study on the basis of their answers to the filter questions. Thus, for the purpose of the quantitative analyses, 307 participants yielded usable data for Part 1 of study. Of these, 69% ($n = 212$) continued on to complete Part 2.

For Part 1, 146 participants were assigned to the Aboriginal condition and 161 were assigned to the unspecified condition. In Part 2, these numbers declined to 98 and 114, respectively. Overall, 171 Part 1 participants were recruited through the University of Saskatchewan PAWS page and the remaining 136 were drawn from the Psychology Department's undergraduate participant pool. The sample was predominantly heterosexual (85%), female (77%), and Caucasian (64%), and participants' average age was 22.91 years ($SD = 6.10$). Participants were generally liberal-leaning (67%), and most reported some type of religious attendance, with many indicating their attendance at religious services occurred on special occasions (30%). A strong majority of participants reported being domestic university students (80%), living in Saskatchewan (95%), and currently residing in a community of more than 100,000 people (91%). For the full set of responses regarding participant demographics, please see Tables 1 and 2.

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[6] This calculation omitted the three questions regarding petition support due to the nature of their placement within the survey. The petition support questions were separate from the five main questionnaire-focused pages, and participants were encouraged to skip to the next page if they did not wish to sign the preceding petition.

2.2 Measures

　　2.2.1 Demographic items. After reading and agreeing to the consent form (Appendix A), participants began the study by completing the 11-item demographic questionnaire, which included age, gender, political orientation, sexual orientation, ethnic identification, student-related characteristics (e.g., current enrollment status, international or domestic student status, and area of study), community of residence-related characteristics (e.g., province and population), and religious attendance. For a complete copy of the demographic items, please see Appendix B.

　　2.2.2 Writing task. On a new screen, participants were then told: "We would like you to take a minute to imagine yourself meeting an Aboriginal[7] stranger for the first time. Imagine that you meet on the train and talk for about 30 minutes until you reach your stop and depart the train. Imagine that the interaction is relaxed, positive, and comfortable. During the conversation, imagine you find out some interesting and unexpected things about the Aboriginal stranger." The control condition had participants see the word "stranger" instead of "Aboriginal stranger." Additional instructions were also provided: "Now, you will be asked to write about what you imagine, so please take the next three minutes to think about each part of the instructions. The 'Next' button (which will take you to the next page) will appear once the three minutes are up."

　　Participants were asked to provide the gender and race of their interaction partner, and to describe as many additional aspects of the scenario they just imagined as possible. The gender question was open-ended whereas the race question consisted of four options: Caucasian, Asian, Aboriginal, and Other (please specify). Three hundred thirty two participants completed the writing task. Overall, 61% imagined meeting a male stranger. In the Aboriginal condition, all but one participant reported imagining interacting with an Aboriginal person. In the unspecified condition, participants reported the target race as Caucasian (69%), Other (19%), Asian (11%) or Aboriginal (1%). The length of the open-ended description ranged from 20 characters (five words) to 2,053 characters (396 words), with a mean of 367 (approximately 68 words) and a median of 285 (approximately 54 words). Analysis of the content of these descriptions can be found in the Results section.

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[7] Based on feedback from Indigenous and non-Indigenous peers and researchers, "Aboriginal" was used in all instructions to participants because "Indigenous" was perceived to be a term relatively less familiar to the average participant.

2.2.3 Scale items. Participants were then presented with 106 questionnaire items which comprised 12 scales. Following these items was the petition page and 3-item petition support measure. Of the 13 scales, seven were of primary interest, and are described in detail below. In contrast to the imagined contact exercise, related questions, and demographic questionnaire, the scale items were presented during both Time 1 and 2. Scale descriptives can be found in Tables 3 and 4, and intercorrelations between the scales can be found in Tables 5 and 6. Full copies of the scales can be found in Appendices C through I.

Intergroup anxiety. Stephan and Stephan's (1985) intergroup anxiety scale was adapted to measure feelings of anxiety relating to future intergroup contact with Indigenous people. Specifically, it asked participants whether they would feel "certain, awkward, self-conscious, happy, accepted, confident, irritated, impatient, defensive, suspicious, and careful" when interacting with an Aboriginal person in the future (Stephan & Stephan, 1985, p. 171). The scale consists of 11 items and uses a 7-point Likert-type response format ranging from 1 (*strongly disagree*) to 7 (*strongly agree*);[8] thus, an overall range of scores from 11 to 77 was possible. Scores for the positively valenced items were reversed, and higher scores indicated greater intergroup anxiety. The scale showed good scale score reliability at the first and second points of measurement ($\alpha = .87$; 95% CI: .85-.89; $\alpha = .91$; 95% CI: .89-.93, respectively). This aligns closely with previous alpha coefficients reported by Stephan and Stephan (1985), who also found evidence of construct validity; their measure positively correlated with stereotyping of and perceptions of dissimilarity to outgroup members.

Modern prejudice. The Modern Prejudiced Attitudes toward Aboriginals Scale (M-PATAS), created by Morrison et al. (2008), was used to measure the extent to which participants are prejudiced, in a contemporary sense, towards Indigenous people. This type of prejudice takes the form of more disguised and indirect sentiments, captured by items such as "Aboriginal people seem to use their cultural traditions to secure special rights denied to non-Aboriginal Canadians" and "Many of the requests made by Aboriginals to the Canadian government are excessive" (Morrison et al., 2008, p. 24). This scale consists of 14 items and uses a 7-point Likert-type response format ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The

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[8] The original scale used a 10-point response format. This has been modified to a 7-point response format in the present study for the sake of consistency with the other dependent measures. The psychometric properties of the Intergroup Anxiety Scale are reported by Stephan and Stephan (1985), and this particular measure continues to be the standard measure used for intergroup anxiety in imagined contact studies.

possible range is 14 to 98, with higher scores indicating greater modern prejudice. The measure had high scale score reliability at both time points (α = .94; 95% CI: .93-.95; α = .95; 95% CI: .94-.96, respectively), aligning with past values found by Morrison et al. (2008), and Nesdole et al. (2015), both of whom also found evidence of construct validity. For instance, Nesdole et al. (2015) found that the measure positively correlated with right-wing authoritarianism and social dominance orientation.

Old-fashioned prejudice. Contrary to the modern variety, old-fashioned prejudice is overt and direct. To measure this construct, Morrison et al.'s (2008) Old-fashioned Prejudiced Attitudes toward Aboriginals Scale (O-PATAS) was used. This scale has 11 items, and uses the same 7-point Likert-type response format as the M-PATAS. The range of scores is thus 11 to 77, with higher scores indicating greater prejudice. Example items from this scale include "Most Aboriginal people sound drunk" and "High standards of hygiene are not valued in Aboriginal culture" (Morrison et al., 2014, p. 1006). This measure had strong scale score reliability at both times of measurement (α = .91; 95% CI: .90-.93; α = .93; 95% CI: .91-.94, respectively). As with the M-PATAS, Morrison et al. (2008) and Nesdole et al. (2015) reported similar evidence of scale score reliability. The latter also found evidence of convergent validity, as the measure positively correlated with right-wing authoritarianism and social dominance orientation.

Outgroup variability. Turner et al.'s (2007) three-item measure of perceived outgroup variability was used to assess the extent to which Indigenous people are seen as a diverse versus homogenous group. That is, Indigenous people may be seen as being "all the same" because of their shared category membership, instead of being recognized as unique individuals. The response format for the scale was adapted to fit the 1 (*strongly disagree*) to 7 (*strongly agree*) structure of several of the other measures used in the current study. Scale scores ranged from 3 to 21, with higher scores indicating greater perceptions of outgroup variability. An example item is: "When I think about [Aboriginal people], I perceive them as different to one another." (Turner et al., 2007, p. 435). Scale score reliability for this measure was weaker than others in the study, across both time points (α = .66; 95% CI: .58-.72; α = .77; 95% CI: .71-.82). These scores were, however, improved over those in Turner et al.'s (2007) original study (α = .55). A version of the scale used in the context of Northern Irish religious differences yielded evidence of convergent validity, as it negatively correlated with intergroup anxiety (Paolini, Hewstone, Cairns, & Voci, 2004).

Intergroup contact. Contact experience with Indigenous people was measured using an adapted form of Husnu and Crisp's (2010) scale, which focuses on both perceived quality and quantity of contact. The five quality and three[9] quantity items used a 5-point response format ranging from 1 to 5, with response wording matched to each item (e.g., 1 = never, 5 = always; 1 = very competitive, 5 = very cooperative). Ranges for the scales are thus 5 to 25 (quality), and 5 to 15 (quantity), with higher scores indicating more frequent, positive, higher-quality contact. Example questions from these subscales, respectively, are: "When you interact with [Aboriginal people], does it feel superficial or deep?" and "In everyday life, how often do you encounter [Aboriginal people]?" (Husnu & Crisp, 2010, p. 945).

The quality-related items showed adequate scale score reliability across the two time points ($\alpha = .75$; 95% CI: .70-.79; $\alpha = .79$; 95% CI: .75-.84), while the three-item quantity-related scale items showed strong scale score reliability ($\alpha = .91$; 95% CI: .89-.92; $\alpha = .92$; 95% CI: .90-.94, respectively). In previous uses of the scale, combined scores from both quantity and quality items showed evidence of convergent validity, correlating negatively with intergroup anxiety and positively with general outgroup attitudes (Voci & Hewstone, 2003). However, given the weak quantity by quality correlations in the present study (Time 1: $r = .21$, $p < .001$; Time 2: $r = .098$, $p = .157$), they were not combined into a single contact scale.

Secondary variables and filter questions. Six other scales were included for the purposes of secondary analyses. Specifically, these scales assessed: belief in a just world (seven items; Lipkus, 1991), islamophobia (16 items; Lee, Gibbons, Thompson, & Timani, 2009), modern homonegativity toward gay men (12 items; Morrison & Morrison, 2003), realistic and symbolic threat toward Canadian immigrants (eight and seven items, respectively; Stephan, Ybarra, & Bachman, 1999), and system justification (eight items; Kay & Jost, 2003). They were measured on 7-point scales ranging from 1 (*strongly disagree*) to 7 (*strongly agree*), and the alpha coefficients for the measures ranged from satisfactory to excellent (Time 1 αs = .73-.96; Time 2 αs = .79-.97).

Amongst all the scale items were three filter questions, which were included to identify individuals who were not paying adequate attention to the task at hand. They explicitly asked

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[9] There is an additional quantity contact item; however, the item was not included in analyses due to its structural differences compared to the three other items. The item was "How many Aboriginal people do you know? (Please specify the number.)" and given the highly inconsistent, open-ended responses it yielded from participants, it could not be combined with the other items to form a scale.

participants to select a particular response option (e.g., "For this question, please select 'Disagree.'"). Forty six participants at Time 1 (15% of the sample) and 29 participants at Time 2 (14% of the sample) answered at least one of the three questions incorrectly. Participants' performance on these items, for both Time 1 and Time 2, however, improved over time, which is inconsistent with the notion that participants were losing focus or energy as they proceeded through the survey (Nguyen, 2017).

In addition, participants who answered at least one filter question incorrectly appeared to fill out the imagined contact description with the same amount of engagement as the other participants, as captured by the similar description lengths[10], and were no more likely to drop out between Parts 1 and 2 of the study, χ^2 (1, $N = 307$) = .0.18, $p = .893$, Cramer's $V = .008$. Of the participants who answered a filter question incorrectly, 32% dropped out compared to 31% of those who answered all filter questions correctly. This suggests that the two groups did not differ substantially. Interestingly, one participant also commented that she purposefully answered these items incorrectly because she suspected we were measuring conformity, and there was no explanation given as to why the instructions should be followed. Taken together, this information indicates that the filter questions do not provide clear, meaningful data regarding the focus level of participants. As such, given the pattern of responses and an explanation given by at least one participant, no cases were removed on the basis of incorrect responses.

Petition support. Lastly, petition support was a two-pronged measure capturing participants' support for an Indigenous-related petition. The petition was based on a report by Scott (2014), who outlined sentencing bias against Indigenous offenders in the Saskatchewan court system. Participants were told that the petition was not connected to the study itself, and that their responses to it would be exported to the website www.gopetition.com/petition-campaigns/Canada. They were asked to give their initials in the place of a signature, and were then asked three questionnaire items regarding how much they supported the petition, found it important, and would be willing to keep supporting the petition's cause in the future. These items were measured on a 5-point response format ranging from 1 to 5 with individual responses matched to question wording (e.g., 1 = very unimportant, 5 = very important). The range of scores is 3 to 15, with higher scores indicating greater support. An example item is "How

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[10] An independent samples *t* test showed no significant difference for length of written description between the two subsets of participants, $t = -.644$, $p = .520$.

important or unimportant do you think this issue is?" The scale score reliability for this scale was good for both Time 1 (α = .86; 95% CI: .82-.88) and Time 2 (α = .89; 95% CI: .86-.92).

2.2.4 Post-experimental inquiry. For Time 2 only, participants were asked to complete three open-ended questions regarding any suspicions they had regarding the nature and purpose of the study and some of its components. The questions were adapted from those originally created by Page (1973). Specifically, participants were asked: 1) what they thought the study was about or what they thought the researchers were studying, 2) what suspicions, if any, they had about the study as a whole, and 3) what suspicions, if any, they had about the petitions.

Although four participants guessed that the imagined contact exercise would have some influence on participants' answers to the questionnaire items, none guessed what other conditions may be involved in the study, or the directionality of the hypotheses. As such, these participants remained in the sample. Several others correctly noticed the repetition of items in Parts 1 and 2 of the study, and suggested that response consistency was being examined. In addition, four participants believed that the petition was not a real one, and 11 believed that it was related to the study in some way. Since none were able to specifically state the connection to the imagined contact exercise or other conditions in the study, no participants were removed based on the post-experimental inquiry.

2.3 Procedure

Participants in the study signed up to participate through either the University of Saskatchewan PAWS webpage, or the psychology participant pool. The former participants were entered into a prize draw, while the latter received course credit. The study took place entirely online. Participants first read the consent form, which explained the study's components, their rights as participants, the ethical review and approval process that had taken place, and relevant contact information for the researchers and the university's research ethics office. Participants were then asked to complete the demographic questionnaire. Following this, they were presented with the imagined contact prompt, which remained on the screen for three minutes. The prompt included the experimental manipulation; participants imagined interacting with an Aboriginal stranger or a stranger of an unspecified background. After the three minutes passed, participants were able to move onto the next portion of the study, in which they described the imagined contact scenario, including the manipulation check questions. Next, they completed all of the scale items, which were evenly distributed across five pages. The disguised petition and petition

support scale followed. The final pages of study's first part depended on the recruitment source. For PAWS participants, they were for their time, asked for their email addresses in order to follow up for Part 2 and include them in the prize draw, and also asked three questions (number of sisters, first letter of mother's first name, and last four digits of phone number) in order to create a unique code to link their data together. For participant pool respondents, they were thanked for their time, and asked for their SONA identification number. Information about how the second part of the study could be completed was provided for all participants.

Participants were contacted via email four weeks after their completion of Part 1. The email contained a link to Part 2 of the study or, in the case of participant pool respondents, a reminder that it had been posted on SONA. For the latter group, they had up to one week to complete Part 2. For PAWS participants, follow-up emails were sent if they failed to complete Part 2 within two weeks. As such, some participants completed Part 2 beyond the four-week timeline that was initially intended. After consenting, Part 2 participants completed the same scale items as in Part 1, including the petition and petition support scale. Just prior to being debriefed, participants completed the post-experimental inquiry questions, which gauged their awareness of the study's purpose and experimental hypotheses.

Chapter 3: Results

3.1 Diagnostics

Prior to hypothesis testing, the data were cleaned and assumptions for the ANOVAs and MANOVAs were checked. Individual mean imputation was conducted for 120 participants, who had no more than six items missing, across all scales, for each of Time 1 and Time 2. When missing items made up 30% or more of the individual scale's items, total scale scores were deleted, as recommended by Shrive, Stuart, Quan, and Ghali (2006). Using t tests, there were no statistically significant differences between participants who completed only Part 1 ($n = 212$) compared to those who completed both Parts 1 and 2 ($n = 95$). Participants who completed Part 1 of the study were compared to those who completed both Parts 1 and 2, on the main variables of interest – modern prejudice, old-fashioned prejudice, intergroup anxiety, outgroup variability, and petition support – as well as demographic variables – age, gender, quality and quantity of contact with Indigenous people, political orientation, religious attendance, population of current residence, university enrollment status, domestic versus international student status, area of study, and sexual orientation. In addition, the data were analyzed to look at dropout rate based on the condition to which they were assigned. No statistically significant differences were found for completers compared to non-completers on the dependent variables of interest or on the demographic variables (all ps > .05). For information regarding the checking of statistical assumptions, please see Appendix J.

3.2 Descriptive Analyses and Intercorrelations

To provide context for the interpretation of later results, a brief overview of mean scale scores and their correlations with other variables in the study is presented. For a full description of means, standard deviations, and alpha coefficients, please see Tables 3 and 4. Overall, participants showed only moderate rates of intergroup anxiety, modern prejudice, and old-fashioned prejudice toward Aboriginal people, with all three mean scores falling just below the scales' respective midpoints. This indicates that, on average, participants somewhat disagreed that they felt anxious towards Indigenous people, and somewhat disagreed with prejudiced statements towards them. On average, participants scored just above the midpoints on measures of perceptions of outgroup variability, petition support, and contact quality, indicating moderate agreement that Indigenous people are a diverse group, that the petition is worthy of support, and that they experience positive contact with Indigenous people. The only variable that reversed this

trend was quantity of contact with Aboriginal people, for which the mean score fell just below the midpoint, indicating relatively infrequent intergroup contact. This pattern was present at both Time 1 and 2. Only one statistically significant difference emerged regarding the effect of gender on the measures of interest: men had higher intergroup anxiety scores than women at the second point of measurement. However, using a Bonferroni correction for multiple comparisons (.05/14) rendered this difference non-significant. Recruitment source (i.e., whether they came to the study from the psychology student participant pool or university-wide webpage) had a similarly limited impact on the measures of interest. While it appeared that participants recruited via the SONA participant pool scored higher on modern prejudice (Time 1 and 2) and lower on outgroup variability (Time 1 only) compared to those recruited via PAWS, these differences were non-significant after applying a Bonferroni correction (.05/14).

Intercorrelations between all measures can be found in Tables 5 and 6. Excepting the contact quantity scale, correlations between the measures of interest were generally moderate to strong, ranging in strength from ±.42 to ±.77 (Cohen, 1992). Unsurprisingly, the modern and old-fashioned measures of prejudice correlated strongly with one another, and higher scores on either of these measures were related to higher scores on intergroup anxiety, and lower scores on perceptions of outgroup variability and petition support. That is, more prejudiced individuals tended to also report greater intergroup anxiety, less recognition of variability within the Indigenous community, and less support for the Indigenous-related petition. In addition, both forms of prejudice were also negatively correlated with quality of contact; people who evinced higher levels of modern or old-fashioned prejudice tended to report lower-quality contact with Aboriginal people. Correlations between contact quantity and the other variables of interest (i.e., old-fashioned prejudice, modern prejudice, intergroup anxiety, outgroup variability, petition support, and contact quality) were more often weak or non-existent, deviating notably from the overall cluster of moderate to strong relationships found among the other scales.

3.3 Hypothesis Testing

To test Hypothesis 1, which predicted (at Time 1) lower intergroup anxiety scores, higher outgroup variability scores, and higher petition support scores for those in the experimental condition (imagining a positive contact experience with an Aboriginal person) compared to the control condition (imagining a positive contact experience with a stranger of unidentified racial origin), a series of between-subjects ANOVAs were conducted. None of these tests showed a

statistically significant effect; for intergroup anxiety, $F(1, 305) = 1.93$, $p = .165$; for outgroup variability, $F(1, 302) = .375$, $p = .514$; or for petition support, $F(1, 270) = 2.88$, $p = .116$. Scores remained nearly the same for those in the experimental (i.e., Aboriginal) condition compared to those in the control (i.e., unspecified) condition, respectively, for intergroup anxiety ($M = 36.91$, $SD = 10.05$; $M = 35.36$, $SD = 9.48$), outgroup variability ($M = 15.03$, $SD = 3.17$; $M = 15.25$, $SD = 3.10$), and petition support ($M = 11.21$, $SD = 2.37$; $M = 11.66$, $SD = 2.36$).

To test Hypothesis 2, which stated that – immediately after the imagined contact exercise – participants in the experimental condition would score significantly lower on both modern and old-fashioned prejudice than those in the control condition, a between-subjects MANOVA was conducted. This test showed no significant effect, $V^{11} = .01$, $F(2, 304) = 1.508$, $p = .223$. Participants in the Aboriginal condition ($M = 50.43$, $SD = 17.06$) scored near equally on the modern prejudice measure (i.e., the M-PATAS) compared to those in the unspecified condition ($M = 48.02$, $SD = 17.04$). Participants in the Aboriginal condition ($M = 37.24$, $SD = 11.81$) also scored near equally on the old-fashioned prejudice measure (i.e., the O-PATAS) compared to those in the unspecified condition ($M = 34.02$, $SD = 11.83$).

Hypothesis 3, which predicted that participants in the experimental condition would be more likely to sign the petition than those in the control condition, was tested using a chi-square. Chi-square was appropriate given the categorical nature of the variables, each of which had two levels. For Time 1, condition was not associated with the decision to sign or not sign the petition, $\chi^2 (1, N = 307) = .296$, $p = .587$, Cramer's $V = .031$. Sixty percent of participants in the Aboriginal condition signed the petition compared to 57% in the unspecified condition.

Hypothesis 4 stated that condition would exert a significant effect on the variables of interest at the second point of measurement. As such, the procedures used to test Hypotheses 1 through 3 were conducted again, on the Time 2 data. These tests all yielded non-significant data, closely aligning to the pattern found at Time 1. The full description of these tests can be found in Appendix K.

To investigate Hypothesis 5, which predicted a negative correlation between the prejudice measures and petition signatures, a point-biserial correlation was conducted, examining the relationship between scores on the prejudice measures and the decision to initial the petition.

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[11] Pillai's trace was used as it is the most robust, out of the available test statistics, to violations of assumptions (Olson, 1976).

At Time 1, the correlations between both modern and old-fashioned prejudice and petition signatures was significant and negative, $r(305) = -.42$, $p < .001$; $r(305) = -.29$, $p < .001$, respectively. A similar correlative pattern was evidenced at Time 2, $r(210) = -.44$, $p < .001$; $r(210) = -.34$, $p < .001$, respectively. That is, participants who had higher scores on the prejudice measures were less likely to provide their initials on the petition in support of an Aboriginal issue.

The post hoc hypothesis predicted that participants, regardless of condition, would score significantly lower on intergroup anxiety, modern prejudice, and old-fashioned prejudice, and would score significantly higher on the outgroup variability and petition support measures immediately after the imagined contact exercise compared to the second time of measurement. For intergroup anxiety, outgroup variability, and petition support, the effect of time was tested using a series of repeated measures ANOVAs.

There was a significant effect of time on intergroup anxiety, $F(1, 212) = 18.74$, $p < .001$, $\eta_p^2 = .081$. Anxiety increased from Time 1 ($M = 36.01$, $SD = 10.00$) to Time 2 ($M = 37.61$, $SD = 10.47$). Time did not have a significant effect on outgroup variability (i.e., the extent to which participants recognize diversity and individuality within a racial group), $F(1, 207) = .481$, $p = .489$. Scores on this measure remained similar from Time 1 ($M = 15.14$, $SD = 3.29$) to Time 2 ($M = 15.25$, $SD = 3.33$). Similarly, time did not have a significant effect on petition support, $F(1, 173) = 2.731$, $p = .100$. Petition support remained consistent between Time 1 ($M = 11.42$, $SD = 2.51$) and Time 2 ($M = 11.22$, $SD = 2.66$).

For modern and old-fashioned prejudice, a repeated measures MANOVA was conducted, and time did not meet the threshold for a statistically significant effect, $V = .027$, $F(2, 211) = 2.97$, $p = .053$. Modern prejudice, as measured by the M-PATAS, was similar at Time 1 ($M = 49.45$, $SD = 17.52$) compared to Time 2 ($M = 50.42$, $SD = 17.85$), as was old-fashioned prejudice toward Aboriginal people, as measured by the O-PATAS ($M = 35.64$, $SD = 12.02$; $M = 36.11$, $SD = 12.27$, respectively).

3.4 Research Question 1: Valence

The first research question formulated to guide analysis of the qualitative data is: what is the valence of the imagined interactions participants reported having with an Aboriginal versus non-Aboriginal stranger? To address the first research question, the researcher rated each participant's written description of their imagined contact with a stranger on a scale ranging from

1 (very negative) to 7 (very positive), with half points awarded in particular instances. For a full copy of the rating guide, please see Appendix L. To confirm the reliability of the ratings, a blind rater conducted the same rating procedure – with the addition of a template document (Appendix L) – on a randomly selected 10% subset of the data. Analysis of interrater agreement showed that, while perfect agreement on the 13-point scale occurred only 61% of the time, the coders were in agreement within a half point for 85% of the cases and within one point of agreement in 94% of the cases. Disagreements were discussed and resolved, and coding according to those principles was completed on the rest of the dataset.

In order to determine whether participants had more negatively valenced interactions with the Aboriginal stranger in comparison with the stranger of unspecified background, an independent samples t test was conducted. Levene's test showed that the two samples were heterogeneous with respect to variance, $F = 9.02$, $p = .003$. As such, the equal variances not assumed version of the t test was used. The latter test showed that the racial background of participants' interaction partners had a significant effect on valence, $t(262.5) = -4.19$, $p < .001$; specifically, participants imagining interacting with an Aboriginal stranger had significantly more negative scores ($M = 5.21$, $SD = 1.12$) compared to those interacting with a non-Aboriginal stranger ($M = 5.73$, $SD = 0.97$). The size of the effect was medium ($d = .50$; Cohen, 1988). Indeed, participants experienced a mostly positive or fully positive experience when asked to imagine interacting with a stranger. Moreover, the results are in line with the sample's average prejudice and intergroup anxiety scores, all of which were moderately low. The differences based on condition, however, point to the inability of the imagined contact prompt – even when it references a positive, relaxing encounter – to erase intergroup biases for some participants. That is, although the imagined interaction was set up to be wholly pleasant, many participants experienced negative emotions, such as anxiety or suspicion.

3.5 Research Question 2: Themes

The second research question is: what themes, if any, might emerge from participants' descriptions of their imagined interaction with an Aboriginal stranger? To address this research question, a qualitative theming procedure was conducted, roughly following the steps outlined by Braun and Clarke (2006). To gain familiarity with the data, the researcher read through the entire dataset, sorted by condition, and noted any instances where themes of potential interest might be present, along with any points or ideas expressed that were interesting from the researcher's

vantage. The entire dataset was then coded into basic categories (e.g., types of content of conversation, target's appearance, racism, and positive, negative, and neutral valence). Next, data extracts were collated and potential themes were generated.

At this point, it became clear that the nature of the data would prevent the type of full, rich description that thematic analysis aims to provide. That is, the accounts provided by participants were too often brief and superficial, making interpretation difficult or impossible in some instances. Therefore, the subsequent steps of analysis focused on refining themes most relevant to the primary research question, rather than representing the dataset as a whole; at times the themes serve more as a commentary on the nature of the imagined contact exercise itself than the definition of what constitutes a theme, as provided by Braun and Clarke (2006): "A theme captures something important about the data in relation to the research question, and represents some level of patterned response or meaning within the data set" (p. 82). The two major categories focused on in the following section were culture and racism.

Necessarily, this method of analysis involves some aspects of subjective interpretation. Taking a pragmatist epistemological approach allows for this subjectivity to exist alongside the more traditional preceding quantitative analysis. Pragmatism draws on a modestly realist ontology, acknowledges the fallibility inherent in any belief, and takes both common sense and scientific knowledge as relevant to the research process, provided they are used in the appropriate contexts and doses (Webb, 2007). While researcher positionality is less influential in interpreting the results of statistical procedures, it is relevant to the analysis of qualitative data. Briefly, the researcher is a non-Indigenous White female from British Columbia who moved to Saskatoon to study applied social psychology. This is the lens through which data interpretation is inevitably affected. The present research is also clearly interventionist in nature; it sought to test the efficacy of imagined contact in reducing prejudice and other forms of negativity perpetrated against Indigenous people in Canada, and positions social justice as the primary desired outcome.

3.5.1 Culture and identity. One of the main ways in which participants talked about the Aboriginal identity of their interaction partner was in terms of culture and identity, which generally fell into four different categories: surface-level mentions of 'traditions,' learning experiences, reserves, and intergroup tensions.

Traditions. Perhaps the most prevalent way participants talked about Aboriginal culture was in a manner that lacked specificity. The comment "he told me things about his life, where he grew up, and the traditions he has as an Aboriginal person" summarizes this position well. While the idea of cultural traditions are brought up, the actual details of these traditions are rarely provided[12]. This is unsurprising given the nature of the imagined contact exercise. If participants have little background knowledge to draw upon, it would be difficult to invent such details. This contrasts with direct contact experience, whereby participants could provide details of whatever they may have actually learned about their partner. Alternatively, if participants did have more knowledge about local Aboriginal traditions, it is possible that they did not mention them in detail simply because of the open-ended nature of the task prompt (i.e., "Describe as many additional aspects of the scenario you just imagined as possible [for example, what the person looked like, what you talked about, how you felt during the conversation, etc.]"). Dillman, Smyth, and Christian (2014) note that these questions are more cognitively taxing on participants, and are therefore liable to elicit brief responses, particularly if participants are not adequately motivated to engage with the task at hand.

Learning. Participants often discussed the Indigenous identity of their interaction partner as a learning opportunity, albeit often at a surface level. For example, one participant recounted learning about their interaction partner's upbringing on a reserve, which made him want to know more about Aboriginal culture more broadly. Another related the imagined contact exercise to a previous real-life experience, describing "how hospitable the whole community was while we were [in La Loche] and how awesome of an experience it was to learn so much about their culture." Participants like these acknowledge the positivity that can come from intercultural interactions. Given the range of valence – from neutral to positive – surrounding talk of culture and traditions, nurturing curiosity for these topics could improve the attitudes of non-Indigenous Canadians. However, this would likely only be effective for those who do not view Indigenous people as a threat, and who value a civic conception of nationality rather than an ethnic one (Sumino, 2017). Whereas the latter conception emphasizes race and ethnicity as a basis for

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[12] When greater detail was provided, it was often in the form of traditional appearance, noting, for example, that their interaction partner was wearing beaded jewelry or had long braided hair. The notion of living off the land also appeared, but was stated in limited detail.

citizenship, the former emphasizes choice and subjective feelings of belongingness, which have been found to indirectly relate to more positive views of multiculturalism (Sumino, 2017).

    Reserves. Another common representation of Aboriginal identity centred around reserves. While reserves were at times spoken about in a positive or neutral light, it was more frequent for them to be categorized as something to be overcome. In some cases, this took the more neutral form of participants' interaction partners discussing the need to transition from life on reserve to that of an urban university setting. In more negative cases, reserves were associated with potentially low educational attainment, substance abuse, and criminality. The latter case was illustrated by one participant, who recounted, "We talked about where I grew up (near many reserves) and the vandalism that is currently happening in the surrounding areas, and farming communities. He was understanding, more than I thought he would be." In this case, the participant uses the stand-in of local reserves to imply a link between Aboriginal identity and criminal behaviour. While the comment is far from the most racist provided in the dataset, it is perhaps the most chilling; it reflects an environment (i.e., rural Saskatchewan) rife with intergroup tensions that prominently contributed to the death of Colten Boushie, a young Cree man, who was shot and killed by Gerald Stanley, a White farmer, on August 9, 2016.

    The description of reserves in a negative light can be understood in multiple ways. Firstly, it is important to acknowledge the realities of living conditions on some reserves. For instance, census data analyzed in 2017 showed that 80% of reserves have a median income level below the poverty line (Press, 2017). The adversities that accompany living in and around poverty should not be ignored, and the link between poverty and becoming involved in criminal behaviour is well-established (Segal, 2011). Moreover, some types of crime, for instance, those committed by youth, occur at a more frequent rate on reserves compared to off reserves (Public Safety Canada, 2012). That participants have relatively negative views about reserves, then, should not be dismissed as a simple reflection of racism.

    Instead, the potential for racism lies in the attribution process related to the conceptualizations of reserves. That is, if a person assumes that poverty and crime on reserves is a problem, it may not always be incorrect, but it would be a fallacy to believe that people who live on reserves are inherently prone to poverty or criminal behaviour. Instead, understanding that reserves are a product of colonialism, and this ideology's accompanying disadvantages with respect to economic development and opportunity, allows for structural attributions of criminal

behaviour and for the diversity within racial groups to be recognized and respected. It is also important to note that many of the crucial factors that support mental well-being in Indigenous young people, including access to land, traditional knowledge, and skill development, can be uniquely provided in a reserve setting (MacDonald, Ford, Willox, & Ross, 2013).

Intergroup tensions. More broadly, many participants' accounts of interacting with an Aboriginal stranger fell under the umbrella of intergroup differences and tensions, which was framed both positively and negatively. Most often, cultural differences were represented at a more surface level, briefly touching upon "a lot of cultural differences in our upbringings," for example. More positively valenced items also highlighted differences but did so with greater depth. One participant recounted their interaction partner saying, "She was very knowledgeable, and smart as she was a head leader in a group of aboriginals that travel and teach people about their culture. It is important to them to embrace their culture and integrate it into their everyday lives amongst the technology and beliefs of today's society." In this instance, the participant frames Aboriginal culture in opposition to "mainstream" Canadian culture, but also notes the ability to combine the two.

At a more interpersonal, negatively valenced level, several participants reported feeling anxious at the prospect of talking to the Aboriginal stranger, although many attributed this to internal traits (e.g., shyness) or social norms (e.g., keeping quiet while using public transit) without referencing their interaction partner's Aboriginal identity. A few, however, did make such references; for instance, one noted that, "As he talked more the conversation was more comfortable but throughout I was worried what I would say might offend him and spark anger," while another stated, "I'm almost always apprehensive about men, and I admit that I have prejudices about Aboriginal people that pop up -- I combat them, but it would be dishonest to say they aren't there." Still another noted that "I felt [from the stranger] a kind of inquisitiveness mixed with a concern about the how [economic- and family-based] migration would affect them, the natives." Statements like this highlight the initial wariness that can occur in intergroup contexts where there is a sense of a cultural divide. Even in the case of a simple conversation with a stranger on a train, the feeling of difference led these participants to modify their behaviour. Importantly, however, the participants highlighted above also went on to report a positive overall experience with the stranger. Based on the nature of their descriptions – which were longer and contained greater detail than the average – it may be that effortful reflection and

engagement are required if participants are to move past an initial intergroup anxiety phase into a more positive frame of mind and subsequent imagined experience.

3.5.2 Racism. Themes related to racism were grouped into three categories: racism by participants, constructions of racism, and the hardship narrative.

Racism by participants. Some participants made comments that reflected racist stereotypes and narratives, ranging from less consequential and likely unintended to alarming and overt. For instance, participants at times used the term "Aboriginal" – or its more outdated counterpart, "native" – as a noun rather than an adjective, reducing their interaction partner's identity to this single characteristic. When participants reflected on the prompt's instruction to imagine learning something unexpected about the stranger, those in the Aboriginal condition did find common ground through aspects such as shared hobbies or being in the same academic program, similar to those in the control condition. However, the former participants also, at times, described surprise that their interaction partner was successful, well-educated, or worldly. Indeed, one participant pointed this problematic pattern out herself, writing, "I am aware of the racism and cultural generalizations I am making. As I leave, I feel almost bad about what I was thinking, realize that I am just adding to the stereotypes that already exist." This again speaks to the importance of effortful reflection on the part of participants. Stereotypes, given that they are socially shared, relatively automatic, and taken for granted beliefs about a group, are easily accepted as facts if they are not confronted with a high level of critical engagement (Gardner, 1994).

Stereotypes were even more overt in other comments; for example, in multiple instances participants' interaction partners were described as being alcoholic, dangerous, or poor. In the most egregious example of this, the participant's entire account read: "Native dude was drunk and falling asleep across three seats while I stood holding the hand rail and trying not to look at him while also keeping an eye on him so he didn't attack me while I was not looking." While the overt racism of this comment was exceptionally rare, it still bears mentioning given that participants were asked to imagine a positive, relaxed interaction. In the face of this request, it is difficult to imagine such a negative result occurring with a group that is not already heavily stereotyped and stigmatized.

While the latter quote reflects old-fashioned prejudice, the modern type was also evident in some participants' accounts. Wrote one participant: "We discussed some politics, especially

the issues concerning natives of the day. He acknowledged there was [*sic*] some mistakes made, but also that Aboriginals today have a lot going for them, and certainly didn't blame me, my culture, or my ethnicity for any past injustices. He even acknowledged Aboriginals may have too much privilege today." In this case, the participant echoes multiple modern racism narratives regarding Indigenous people. Firstly, it frames discrimination and racism as a distant, historical issue. Second, although the participant names these actions as "injustices," he first uses the term "mistakes," implying that discrimination in the past was unintentional. Third, the participant repeats the idea that Indigenous people today are privileged, despite the overwhelming evidence to the contrary (Waldram et al., 2006). Finally, the participant notes that his conversation partner did not blame him, his culture, or his ethnicity for "any past injustices." While at face value this could be taken as a positive appraisal of his interaction partner, this statement also accomplishes the task of writing his own ethnic group out of colonialism. It is as though only a direct involvement in the cultural genocide perpetrated against Indigenous peoples would be enough to elicit any form of responsibility to engage in reconciliation[13]. To the contrary, the TRC's Calls to Action exhort all Canadians to become better informed about the intergenerational legacy of residential schools in particular, and the ways in which non-Indigenous Canadians have been privileged by this ethnocentrism from the first wave of contact to the present day (TRC, 2015).

Constructions of racism. Participants' accounts contained varying constructions of racism. In many cases, participants acknowledged the existence of racism as a negative force in need of change. It was also seen as an automatic interpersonal reaction as well as a broader social issue. For instance, several individuals noted that they felt negative emotions or stereotypes upon reading the imagined contact prompt and had to actively work to combat these automatic reactions and put themselves in a relaxed and positive mindset. Recounted one participant: "When I first saw them I had some negative emotions and prejudice due to negative past experience and a culture geared towards racism. It took a conscious effort to let go of those feelings which were not supported by fact. It is a shameful feeling to know you have to make a conscious effort to not judge someone by their ethnic background, but I am pleased that I don't let my initial thoughts affect my actions." Statements like these suggest a future direction for

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[13] It is recognized that the term "reconciliation" is a potentially fraught one, implying that a positive and equal relationship existed at one point in Indigenous-settler relations in Canadian history. The term is used here as a shorthand for strives toward justice and equality between Indigenous and non-Indigenous peoples.

research: what differentiates people who use previous negative experiences as a confirmation of stereotypes from those who take pride in being able to ignore these automatic impulses? Since stereotypes about Aboriginal people are so deeply entrenched in Canadian society (Morrison et al., 2008), it is likely a more practical approach to target how people understand, respond to, and act upon stereotypes, rather than to erase the stereotypes from the Canadian conscience as a whole.

Participants also provided constructions of racism through the lens of their imagined interaction partner, who at times relayed experiences of racism. In these cases, racism was described as a pervasive, everyday phenomenon that typically acted as a barrier or challenge in the target's life. In imagining a target's life story, one participant described a woman's educational attainment: "Although university was a struggle and she experienced many setbacks not only in her own academic journey but because of racial and discriminatory obstacles, this woman proved her resilience and graduated... She has proved [*sic*] that good people can come from not so good situations and is a role model not only for Aboriginal people but for Caucasian people who are privileged and take it for granted."

Interestingly, the last point provided by this participant was the only one in the dataset that explicitly constructs racism towards Indigenous people as its opposite, that is, the privilege that is gained in Canadian society by being White. While at face value this seems to provide a very specific, progressive viewpoint, further examination of the extract in its original context reveals a different meaning. The participant imagined that this target had been cut off from all contact with her previously supportive mother (due to believing "that the big world had changed her girl") and was currently "in a long term relationship with a successful white male." Despite the participant describing admiration and positivity toward the target, she does so in a way that erases her Aboriginal identity through family choices and a standard of success that very much aligns with the standard engrained in contemporary, "mainstream" Canadian culture. Placing Aboriginal and non-Aboriginal cultures against one another in this way reflects an integrationist perspective, defined by Warry (2007) as the neo-conservative belief that Aboriginal people should integrate themselves into mainstream Canadian society to be treated as ordinary citizens, disregarding the unique place in Canadian history they hold and subsequent treaty rights to which they are entitled. Warry (2007) notes that this view is widely held by non-Indigenous Canadians, who may not be aware of how it perpetuates colonialism in the present day.

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Hardship. Much more commonly, participants spoke in a vague way of challenges or struggles faced by their interaction partner. For instance, one participant described that the stranger "started talking to me and told me his life story. His struggles growing up and how he eventually made it to university." In cases like this, there is no explicit mention of racism, but it is perhaps implied. It is also possible that ascribing hardships of various kinds to Indigenous people is consistent with narratives presented in the news media, which tend to emphasize the inequalities and challenges faced by Aboriginal people in Canada and fail to highlight successes (Harding, 2006). Similar to the previous discussion regarding reserves, the importance of highlighting social inequities should not be dismissed. Concurrently, however, it is crucial to understand and report on thriving initiatives and communities; failure to do so normalizes hardship and inequality as a part of the Indigenous experience in Canada, and could have the adverse effect of decreasing motivation, on the part of government or individual citizens, to strive for an increasingly just and equitable society (Weick, 1984).

Chapter 4: Discussion

The primary purpose of the present study was to test the efficacy of the imagined contact paradigm for reducing prejudice towards Indigenous people. The study also aimed to better understand the imagined contact paradigm as a whole through a more thorough analysis of participants' qualitative data. The present study tested five *a priori* hypotheses; unfortunately, however, none of the hypotheses regarding imagined contact's effect were supported. Possible explanations for the results are outlined below.

Hypothesis 1 predicted a reduction in intergroup anxiety and increases in perceptions of outgroup variability and petition support for those who imagined contact with an Indigenous stranger. No aspects of this hypothesis were supported. Participants scored similarly on all the measures regardless of the background of the stranger with whom they imagined interacting. In terms of the finding wherein no decreases in intergroup anxiety was evidenced, this could be explained potentially by the structure of the items. For instance, all items on the intergroup anxiety scale begin with: "When I interact with people of an Aboriginal background, I feel [awkward.]" Importantly, the wording across the 11 items changes only in terms of the word that appears at the end of the statement (Stephan & Stephan, 1985), which rotates through a number of positive and negative adjectives (e.g., "accepted," "irritated"). Essentially, the intergroup anxiety measure requires participants to recall *previous* interactions rather than to predict how *future* ones might unfold. It would have been more insightful to have questions worded in future tense (i.e., in a way that is anticipatory), and therefore have an estimate of how participants, now that they have had a positive imagined experience, believe future interactions will transpire. As such, an appropriate alternative would be: "When I interact with people of an Aboriginal background in the future, I will feel accepted."

It also is possible that the more stringent control condition utilized in the present study reduced the likelihood of finding a significant effect. While Miles and Crisp's (2014) meta-analysis reported no significant differences for the imagined contact effect on the basis of control condition task, the categories they examined do not perfectly align with that used in the present study. The four control conditions they observed were: imagine contact with a non-outgroup member, imagine a neutral scene, think about the outgroup, and no task. In the present study, participants in the control condition were asked to imagine a positive, relaxed interaction with a stranger whose ethnic background was unspecified. Thus, participants were able to (and often

did) imagine interacting with a non-Indigenous outgroup member. It is possible that these participants experienced reductions in intergroup anxiety towards the particular outgroup they imagined, and that this change could have generalized to Indigenous people as well.

Outgroup variability scores were also virtually the same between the two conditions. This scale had the lowest alpha values out of all the measures ($\alpha = .66$, 95% C.I. = .58-.72), suggesting that question wording or structure may have been variably interpreted by participants. Other authors (e.g., Turner et al., 2007) have reported even lower alpha values for this scale, again suggesting it may be flawed. Interestingly, the notion of outgroup homogeneity did appear within the qualitative data, as participants were more likely to describe "Aboriginal culture" as a whole, rather than recognizing that many distinctions exist between different groups. Thus, while outgroup variability may be a useful concept to measure, it possibly would have been improved in this instance by adapting it to the Aboriginal context more specifically, including items concerned with a higher-level, culture-oriented understanding.

Scores on the petition support scale were also unchanged between condition. This may reflect the gap between the imagined contact exercise and the measure. It is relatively intuitive to see the link between imagining a pleasant interaction with a stranger and perceiving the ethnic group of that stranger to contain greater diversity. If one imagines this stranger in a unique way, outgroup variability is a given. However, the support for a social cause relevant to the stranger's ethnic group is more removed from the task. It would seemingly require a robust mechanism, such as lowered prejudice, in order for this particular outcome to occur. Given that prejudice remained unchanged between conditions, it is logical that the petition support scores manifested in a similar fashion.

There was a lack of support for Hypothesis 2, which predicted that both modern and old-fashioned prejudice scores would be lower for those in the experimental condition as compared to those in the control condition. Miles and Crisp (2014) point out that ethnic prejudice is less susceptible to the effects of imagined contact than is prejudice based upon sexual orientation, age, and nationality, perhaps because it is more deeply ingrained in society. Thus, it is likely that M-PATAS and O-PATAS scores were unaffected because anti-Indigenous prejudice is particularly well-entrenched in Canadian society. Within the qualitative data, it is noteworthy that the most frequent talk of Aboriginal identity, in the experimental condition, was a surface-level mention of "Aboriginal traditions." Even more often, the Aboriginal identity of their

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interaction partner was not commented on. From these features, it may be the case that participants are able to subtype based on the "relaxed, positive, and comfortable" aspect of the prompt. That is, participants may have experienced a positive interaction but classified it as different than typical Aboriginal people; thus, their attitudes towards the group as a whole did not change based on the fictitious interaction with one individual. This aligns closely with the findings of Denis (2015). While he documented numerous high-frequency and high-quality relationships between White and Indigenous Canadians – which often met Allport's requirements for equal status, pursuit of common goals, and recognition of each others' commonalities – a sense of racial superiority remained which allowed White residents to maintain these intergroup relationships while still denigrating Indigenous people as a group.

Hypothesis 3, which stated that participants in the experimental condition would be more likely to sign the petition than those in the control condition, was also not supported. This non-significant finding also points to the lack of strength of imagined contact in the face of anti-Indigenous prejudice. This result contradicts previous findings that imagined contact leads to moderate effect sizes on behavioural measures (Miles & Crisp, 2014). An important procedural issue is also relevant to this result. The petition was presented to participants as though it were not a part of the study itself, and participants were invited to skip through to the next survey page if they were uninterested in signing it. Thus, failure to provide their initials on the petition measure could have been a sign of rushing through to the end of the study, rather than a sign of opposition. The lack of clarity regarding this particular result indicates that there may yet be differences between conditions, but if there are any, they are currently masked in the present analysis.

Hypothesis 4 stated that the significant effects predicted at Time 1 would be similarly strong at Time 2. Understandably, this hypothesis was not supported; all of the between-group comparisons at Time 2 were non-significant. In a post hoc fashion, the data were also analyzed to test whether there was an effect of time more broadly (i.e., independent of condition). This hypothesis was not supported; time had no effect on outgroup variability or petition scores, and had the opposite effect than predicted on intergroup anxiety and prejudice scores. That is, anxiety and prejudice were higher immediately following the imagined contact exercise compared to when they were measured four weeks later. There is no clear way to explain these results, and given their post hoc nature, any interpretations would require caution.

Lastly, Hypothesis 5 predicted that those who had higher prejudice scores would be less likely to sign the petition. This hypothesis was supported, providing evidence of the link between prejudice and behavioural support. While this result appears to be intuitive, the link between attitudes and behaviour is complex and often exists in defiance of common sense understandings (Eagly & Chaiken, 1993). Thus, it represents an important addition within the broader research context. Anti-Indigenous prejudice has also been shown to correlate with policy attitudes and behaviours in the past. For instance, in an early study by Langford and Ponting (1992), the researchers found that increased prejudice was related to lesser support for Aboriginal self-governance and support from the federal government. As well, Beaton et al. (2011) found that higher prejudice was related to favouring a White, and not Indigenous, criminal offender as a candidate for rehabilitation, and Riley and Ungerleider (2008) found that preservice teachers were less likely to recognize and make programming decisions based on the educational achievements of Indigenous students compared to non-Indigenous students with identical academic records.

Regarding the qualitative analysis of the data, insight into how non-Indigenous people think about and understand Aboriginal identity, culture, and the racism by which they are affected was provided. The most typical way participants described their interaction partner's Aboriginal background was through broad mentions of cultural traditions, although there were also descriptions of learning experiences, reserves, and intergroup tensions. Some participants displayed racist attitudes, in both modern and old-fashioned forms. More commonly, there were differing constructions of racism, through the lens of the participant or their interaction partner; racism as a daily struggle, an automatic feeling to be suppressed, and a socially-widespread problem were common depictions. Less explicitly connected to racism was the notion that Aboriginal people face varying hardships in life, which they must struggle to overcome.

The dataset as a whole may provide clues regarding the largely non-significant quantitative results. Approximately 42% of the respondents in the experimental condition did not mention the Aboriginal identity of their interaction partner in any way. Since the vividness of the interaction mediates the effectiveness of imagined contact (Husnu & Crisp, 2010), it is unclear whether participants were engaged enough in imagining the Aboriginal identity aspect for the positive interaction to have an effect on wider intergroup attitudes. It could also be that there is a disjunction between what participants imagined and what they wrote. Future research

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incorporating qualitative analysis would do well to include more in-depth prompts for both the imagined contact and subsequent writing exercises

4.1 Limitations and Future Directions

To explain imagined contact's global lack of utility in reducing anti-Indigenous prejudice, three main explanations are advanced in this section, including differences in methodology, the uniqueness of the target group, and limitations of the imagined contact paradigm as a whole. The latter point is also, in part, reliant on the unique insight provided by participants' qualitative accounts of the imagined contact exercise.

Methodological choices may have contributed to the non-significant effects. Participants in the control condition were asked to imagine a positive interaction with a stranger of unspecified racial background; they were not specifically asked to imagine contact with an ingroup member. It is possible, then, that the approximately 30% of control group participants who imagined interacting with an outgroup member could have experienced a generalized positivity towards outgroups that manifested in their scale responses,[14] similarly to what was expected for those in the experimental condition.

In addition, the timeframe of the project necessitated that data collection take place online. This is contrary to the typical methods employed by Crisp and colleagues (personal communication, September 22, 2016) as well as those working in applied settings (e.g., Vezzali et al., 2011). It is possible that in-person testing leads to more focused and engaged participation in the imagined contact exercise, thereby producing results of a more significant magnitude. In contrast, online participants may be completing the study in more distracting environments. Participants' accounts of their imagined interaction at times corroborates this notion; some of the descriptions recount a very surface-level conversation and fail to provide details beyond the minimum asked of them in the prompt (i.e., conversation content, their interaction partner's appearance, and how they felt). Hoffarth and Hodson's (2016) imagined contact experiment involving gay men, lesbian women, and Muslims as outgroups represent one of the few published studies that found non-significant results despite adequate power to detect an effect; similarly to the present study, it was carried out in an online setting.

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[14] This figure was calculated through comparing participants' self-reported racial background with their response to the manipulation check question, in which they reported the racial background of their imagined interaction partner. It is approximate in nature due to some participants reporting mixed racial backgrounds in which only a partial match occurred between themselves and their target.

Alternatively, in-person testing may be more vulnerable to demand characteristics, artificially inflating the imagined contact effect in these studies. There was limited evidence of demand characteristics in the present study. Just prior to being debriefed, participants were asked for their thoughts about the study's purpose. Several participants believed that the researchers wanted them to answer the scale items in a positive manner; however, none were able to guess the conditions of the study or the directionality of its hypotheses. For future research, it is recommended that imagined contact researchers employ similar measures to detect possible demand characteristics. It is also important to continue the nascent line of research regarding imagined contact's effects on implicit measures of intergroup bias if the demand characteristics explanation is to be ruled out.

Imagined contact as a technique may not be powerful enough to reverse negative biases against heavily stigmatized groups. Given that colonial narratives remain strongly entrenched in Canadian society (Carlson, 2018), Indigenous Canadians fit into this category. In their meta-analysis, Miles and Crisp (2014) found that imagined contact was less effective at reducing intergroup bias towards ethnic minorities compared to outgroups based on sexual orientation and age, furthering the notion that imagined contact may not be universally appropriate or efficacious.

There are several alternative paradigms that would also caution against the use of a universal intervention to reduce any intergroup biases. For instance, Cottrell and Neuberg (2005) presented evidence for a sociofunctional model of prejudice whereby threats and emotions related to specific outgroups should be considered in relation to prejudice reduction. Employing this model, Gervais (2011) predicted and found that prejudice against atheists – which is rooted in distrust (Gervais, Shariff, & Norenzayan, 2011) – would be reduced by perceptions that atheism is common. The opposite would be expected regarding a group that represents threats to one's safety, and therefore evokes fear. The implication of such a model in studying anti-Indigenous attitudes is that greater consideration is needed regarding the foundation of this particular prejudice; it should not be assumed that it will be reduced in the same ways other prejudices are reduced.

Future research on anti-Indigenous prejudice could benefit from different theoretical frameworks. One of these alternative paradigms is Sidanius and Pratto's (2004) social dominance theory. A major component of the theory is that damaging narratives about

outgroups, or "legitimizing myths," help to perpetuate a status quo whereby certain social groups are afforded less abstract and material social value. The ideas embedded within the modern prejudice scale used in the present study represent legitimizing myths; for instance, the notion that Indigenous people are given special treatment and therefore are no longer being discriminated against, or the idea that discrimination occurred in the past and that it is now up to individual Indigenous persons to simply "get over" these traumas. Such a framework appears to fit with the Indigenous context more specifically, and could therefore yield empirical support for specific prejudice reduction techniques such as anti-racist, myth-dispelling educational approaches (e.g., DeTample, 2016).

4.2 Questions for the Future of Imagined Contact

While the above limitations relate to the present study in particular, it is also worth reflecting on the limitations of the imagined contact paradigm as a whole. At present, proponents of imagined contact point out the accumulating evidence of its apparent robustness in reducing intergroup biases (e.g., Miles & Crisp, 2014). In reality, however, there is a mismatch between imagined contact studies and their original intent as stated by Crisp and Turner (2009):

> We assert that the value in imagined contact is in its ability to encourage people to seek out contact, to remove inhibitions associated with existing prejudices, and to prepare people to engage outgroups with an open mind. We argue that imagined contact could be highly effective as a first step on the route toward reconciliation and reduced prejudice, on a *continuum of contact* that provides a road map for the use of multiple contact strategies in improving intergroup relations.

The vast majority of imagined contact studies are laboratory-based, examine prejudice questionnaire scores as its primary outcome, and do not temporally extend beyond the imagined contact exercise. As such, the imagined contact paradigm has some support for only a first step in its own theorizing; that is, imagining intergroup contact may set into motion more positive attitudes. In reality, testing the efficacy of imagined contact would require longitudinal designs with new, direct outgroup contact – taking place outside the laboratory – and contact perceptions as outcomes of interest. Criticisms such as these are often acknowledged but rarely acted upon in contemporary social psychology; for imagined contact to be considered successful, it is not simply optimal, it is necessary.

Even with a more rigorous approach to studying imagined contact, as outlined in previous sections, serious reservations about its utility remain. Perhaps it is effective at shifting scores on a prejudice scale, but is this the ultimate goal this research program aims to achieve? Dixon et al. (2005) outline how changes in prejudice do not necessarily lead to changes in attitudes towards measures that would increase equality. If imagined contact researchers frame their work as an enterprise in social justice, they should strive towards carrying out more innovative, impactful studies that get closer to changing people's attitudes in such a way that they contribute to broader policy changes and greater social justice and equality. Moreover, they should be wary of the ways in which imagined contact could actually bolster the opinions of those who most need to change. Perhaps the most notable finding from the present study was that numerous participants in the experimental condition indicated that their Indigenous interaction partner gave them affirmation of their own beliefs; one participant wrote of having "no sense of 'white guilt'" while another took this much further, proclaiming, in their own terms, many of the key narratives of modern racism.

Such statements point to an inherent limitation of imagined contact as compared to the in-person contact prescribed by Allport (1954). While the latter brings people together and provides new information to prejudiced individuals, the former simply asks individuals to fill in the blanks with pre-existing conceptions of and narratives about outgroup members. Imagined contact is heralded as a flexible, easy method to reduce prejudice, but it is worth asking whether prejudice as firmly held and as taken for granted as that towards Indigenous Canadians can be reduced through anything other than sustained, effortful, open-minded reflection on the part of prejudiced individuals. It is this type of difficult work – in combination with education- and direct contact-based approaches – that may bring about the end goals the imagined contact paradigm claims to strive for. Researchers aligning with this perspective should pursue not only the more rigorous, reality-oriented, longitudinal imagined contact studies, but should also find utility in qualitative studies on individuals' experiences of recognizing and changing their own prejudicial attitudes, which would yield unique insights compared to the standard experimental approach.

4.3 Conclusion

In summary, the present study was designed to test the efficacy of imagined contact in reducing anti-Indigenous prejudice and its correlates. Its novelty also lay in its two-part design and the qualitative analysis that was carried out. The conditions that inspired the study – that is,

the widespread negativity and discrimination faced by Indigenous people in Canada – remain an important focus for future social psychological research. Given the failure of imagined contact in this context, it is crucial that researchers recognize the role of context specificity in prejudice reduction studies, but more importantly that they be open to innovation in the study of prejudice and contact more broadly. In so doing, they will ensure the relevance of social psychology as an active tool for social change.

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Table 1

Participant demographics – Part 1 completers

Demographic Characteristic	Total (*N* = 307)	Female (*n* = 235)	Male (*n* = 70)
Age Range	17-57	17-54	18-57
Mean Age	22.91 (*SD* = 6.10)	22.80 (*SD* = 6.03)	23.33 (*SD* = 6.36)
Race/Ethnicity			
Black	12	8	4
Caucasian	198	161	36
East Asian	22	18	4
Latin American	9	8	1
South Asian	29	15	14
Southeast Asian	11	8	3
West Asian	9	6	3
Other	16	11	5
No response	1	0	0
Political Orientation			
Very liberal	24	18	6
Liberal	101	71	30
Somewhat liberal	81	63	18
Somewhat conservative	52	45	7
Conservative	38	30	7
Very conservative	5	3	2
No response	6	5	0
Religious Attendance			
Regularly	45	33	12
Now and then	54	40	13
On special occasions	91	75	16
Never	116	87	29
No response	1	0	0
Province of Residence			
Alberta	6	3	2
British Columbia	3	3	0
Manitoba	1	1	0
Ontario	3	3	0
Saskatchewan	292	224	68
No response	2	1	0
Population of Residence			
100-1,000	6	5	1
1,001-30,000	13	10	3
30,001-100,000	9	8	1
100,001-500,000	269	206	63
500,000-1 million	4	3	1
Greater than 1 million	5	3	1
No response	1	0	0

Table 1, continued

Participant demographics – Part 1 completers

Demographic Characteristic	Total ($N = 307$)	Female ($n = 235$)	Male ($n = 70$)
University Student Status			
Yes, is a student	286	220	65
No, is not a student	20	15	5
No response	1	0	0
International Student			
Yes, is international	40	26	14
No, is domestic	245	194	50
No response	22	15	6
College/Area of Study			
Agriculture and Bioresources	11	10	1
Arts and Science	176	134	42
Education	6	6	0
Edwards School of Business	21	15	6
Engineering	14	4	9
Environment and Sustainability	3	2	1
Johnson-Shoyama Graduate School of Public Policy	3	3	0
Kinesiology	31	25	6
Law	5	5	0
Medicine	2	2	0
Nursing	3	3	0
Pharmacy and Nutrition	7	7	0
St. Thomas More College	0	0	0
Veterinary Medicine	4	4	0
No response	21	15	5
Sexual Orientation			
Asexual	1	1	0
Bisexual	20	18	2
Gay	3	0	3
Heterosexual	260	199	61
Lesbian	6	6	0
Pansexual	3	3	0
Queer	5	4	1
Other	3	1	1
No response	6	3	2
Recruitment Source			
PAWS	171	131	38
SONA	136	104	32

Table 2

Participant demographics – Part 1 and 2 completers

Demographic Characteristic	Total (N = 212)	Female (n = 164)	Male (n = 47)
Age Range	17-54	17-54	18-38
Mean Age	23.08 (*SD* = 5.82)	23.05 (*SD* = 6.04)	23.26 (*SD* = 5.10)
Race/Ethnicity			
Black	8	5	3
Caucasian	141	121	19
East Asian	12	9	3
Latin American	7	6	1
South Asian	18	5	13
Southeast Asian	6	4	2
West Asian	7	5	2
Other	13	9	4
Political Orientation			
Very liberal	20	14	6
Liberal	68	50	18
Somewhat liberal	54	40	14
Somewhat conservative	38	35	3
Conservative	27	21	5
Very conservative	2	1	1
No response	3	3	0
Religious Attendance			
Regularly	32	23	9
Now and then	38	28	9
On special occasions	66	54	12
Never	76	59	17
Province of Residence			
Alberta	3	1	1
British Columbia	3	3	0
Manitoba	1	1	0
Ontario	2	2	0
Saskatchewan	202	156	46
No response	1	1	0
Population of Residence			
100-1,000	4	4	0
1,001-30,000	7	7	0
30,001-100,000	6	6	0
100,001-500,000	190	145	45
500,000-1 million	2	1	1
Greater than 1 million	3	1	1

Table 2, continued

Participant demographics – Part 1 and 2 completers

Demographic Characteristic	Total ($N = 212$)	Female ($n = 164$)	Male ($n = 47$)
University Student Status			
Yes, is a student	196	153	42
No, is not a student	16	11	5
International Student			
Yes, is international	31	19	12
No, is domestic	165	134	30
No response	16	11	5
College/Area of Study			
Agriculture and Bioresources	9	9	0
Arts and Science	111	86	25
Education	3	3	0
Edwards School of Business	17	12	5
Engineering	12	3	8
Environment and Sustainability	3	2	1
Johnson-Shoyama Graduate School of Public Policy	2	2	0
Kinesiology	26	23	3
Law	3	3	0
Medicine	1	1	0
Nursing	1	1	0
Pharmacy and Nutrition	5	5	0
St. Thomas More College	0	0	0
Veterinary Medicine	3	3	0
No response	16	11	5
Sexual Orientation			
Asexual	1	1	0
Bisexual	13	11	2
Gay	1	0	1
Heterosexual	179	138	41
Lesbian	4	4	0
Pansexual	3	3	0
Queer	5	4	1
Other	2	0	1
No response	4	3	1
Recruitment Source			
PAWS	125	97	27
SONA	87	67	20

Table 3

Descriptive statistics for scales – Time 1

Measures	Total (*N* = 307)				Female (*n* = 235)				Male (*n* = 70)			
	M	*SD*	*α*	95% CI	*M*	*SD*	*α*	95% CI	*M*	*SD*	*α*	95% CI
IANX	36.10	9.77	.87	.85-.89	35.99	10.22	.89	.86-.91	36.23	8.10	.81	.73-.87
MPATAS	49.17	17.06	.94	.93-.95	48.37	17.52	.94	.93-.95	50.94	14.68	.91	.87-.94
OPATAS	36.02	11.83	.91	.90-.93	35.71	12.20	.92	.90-.93	36.53	10.25	.87	.82-.91
OVAR	15.14	3.13	.66	.58-.72	15.34	3.17	.70	.62-.76	14.57	2.94	.49	.24-.67
PS	11.44	2.37	.86	.82-.88	11.53	2.33	.85	.81-.88	11.21	2.51	.88	.82-.93
CQN	9.11	2.64	.91	.89-.92	9.14	2.68	.91	.88-.92	8.89	2.48	.91	.87-.94
CQL	16.07	2.52	.75	.70-.79	16.09	2.54	.76	.71-.80	16.12	2.33	.69	.56-.79
BJW	25.33	7.50	.85	.83-.88	24.62	7.17	.84	.81-.87	27.47	8.13	.87	.82-.91
ISLAM	31.98	16.86	.96	.96-.97	31.25	16.21	.96	.96-.97	33.01	17.10	.95	.93-.97
MHS-G	37.76	13.38	.91	.90-.93	36.69	13.38	.91	.90-.93	40.84	12.43	.90	.87-.93
RT	22.68	7.31	.80	.77-.84	22.37	7.41	.82	.78-.85	23.34	6.75	.74	.63-.82
SJ	30.20	5.99	.73	.68-.77	29.53	5.64	.69	.63-.75	32.21	6.61	.79	.70-.85
ST	24.05	7.15	.80	.77-.84	23.51	7.14	.82	.78-.85	25.55	6.87	.75	.64-.83

Note. Midpoint in parentheses. IANX = Intergroup Anxiety Scale (44); MPATAS = Modern Prejudiced Attitudes Toward Aboriginals Scale (56); OPATAS = Old-fashioned Prejudiced Attitudes Toward Aboriginals Scale (44); OVAR = Outgroup Variability Scale (12); PS = Petition Support Scale (9); CQN = Contact with Aboriginal People – Quantity Scale (10); CQL = Contact with Aboriginal People – Quality Scale (15); BJW = Belief in a Just World Scale (28); ISLAM = Islamophobia Scale (64); MHS-G = Modern Homonegativity Scale – Gay Men Subscale (48); RT = Realistic Threat Scale (32); SJ = System Justification Scale (32); ST = Symbolic Threat Scale (28)

Table 4

Descriptive statistics for scales – Time 2

Measures	Total (*N* = 214)				Female (*n* = 166)				Male (*n* = 47)			
	M	*SD*	α	95% CI	*M*	*SD*	α	95% CI	*M*	*SD*	α	95% CI
IANX	37.61	10.47	.91	.89-.93	36.56	10.53	.91	.89-.93	40.89	9.37	.91	.87-.95
MPATAS	50.41	17.85	.95	.94-.96	49.90	18.34	.95	.94-.96	51.59	15.72	.94	.91-.96
OPATAS	36.11	12.27	.93	.91-.94	35.38	12.59	.93	.91-.95	38.03	10.15	.89	.83-.93
OVAR	15.25	3.31	.77	.71-.82	15.44	3.42	.79	.72-.84	14.64	2.84	.68	.49-.81
PS	11.17	2.63	.89	.86-.92	11.27	2.60	.89	.85-.92	10.91	2.73	.91	.85-.95
CQN	8.93	2.47	.92	.90-.94	9.09	2.49	.92	.90-.94	8.40	2.37	.90	.84-.94
CQL	16.02	2.63	.79	.75-.83	16.04	2.67	.79	.74-.84	16.09	2.34	.77	.64-.86
BJW	25.23	8.01	.90	.88-.92	24.78	7.67	.89	.86-.92	26.40	8.71	.92	.88-.95
ISLAM	31.48	17.15	.97	.96-.98	30.30	16.46	.97	.96-.98	34.66	18.21	.97	.96-.98
MHS-G	38.66	13.98	.93	.92-.94	37.07	13.86	.93	.91-.94	43.49	12.53	.93	.89-.95
RT	22.06	7.35	.83	.79-.86	21.66	7.49	.85	.81-.88	23.16	6.52	.73	.59-.83
SJ	29.69	6.26	.79	.74-.83	29.22	6.13	.77	.71-.82	31.22	6.53	.83	.74-.89
ST	23.94	7.04	.83	.80-.86	23.44	7.15	.85	.81-.88	25.47	6.31	.73	.59-.83

Note. Midpoint in parentheses. IANX = Intergroup Anxiety Scale (44); MPATAS = Modern Prejudiced Attitudes Toward Aboriginals Scale (56); OPATAS = Old-fashioned Prejudiced Attitudes Toward Aboriginals Scale (44); OVAR = Outgroup Variability Scale (12); PS = Petition Support Scale (9); CQN = Contact with Aboriginal People – Quantity Scale (10); CQL = Contact with Aboriginal People – Quality Scale (15); BJW = Belief in a Just World Scale (28); ISLAM = Islamophobia Scale (64); MHS-G = Modern Homonegativity Scale – Gay Men Subscale (48); RT = Realistic Threat Scale (32); SJ = System Justification Scale (32); ST = Symbolic Threat Scale (28)

Table 5

Intercorrelations – Time 1

Measures	1	2	3	4	5	6	7	8	9	10	11	12
IANX	–											
MPATAS	.48**	–										
OPATAS	.67**	.67**	–									
OVAR	-.47**	-.49**	-.59**	–								
PS	-.42**	-.59**	-.42**	.38**	–							
CQN	-.21**	.08	-.20**	.15*	-.003	–						
CQL	-.77**	-.45**	-.54**	.37**	.43**	.22**	–					
BJW	.27**	.44**	.51**	-.36**	-.26**	-.14*	-.22**	–				
ISLAM	.38**	.48**	.50**	-.38**	-.34**	-.24**	-.34**	.27**	–			
MHS-G	.37**	.63**	.59**	-.40**	-.36**	-.06	-.29**	.39**	.53**	–		
RT	.32**	.61**	.48**	-.33**	-.44**	-.05	-.27**	.32**	.50**	.45**	–	
SJ	.05	.20**	.24**	-.23**	-.12**	-.10	-.04	.66**	.07	.19**	.03	–
ST	.37**	.64**	.57**	-.38**	-.42**	-.004	-.31**	.35**	.57**	.56**	.65**	.11**

Note. **p < .01; *p < .05. IANX = Intergroup Anxiety Scale; MPATAS = Modern Prejudiced Attitudes Toward Aboriginals Scale; OPATAS = Old-fashioned Prejudiced Attitudes Toward Aboriginals Scale; OVAR = Outgroup Variability Scale; PS = Petition Support Scale; CQN = Contact with Aboriginal People – Quantity Scale; CQL = Contact with Aboriginal People – Quality Scale; BJW = Belief in a Just World Scale; ISLAM = Islamophobia Scale; MHS-G = Modern Homonegativity Scale – Gay Men Subscale; RT = Realistic Threat Scale; SJ = System Justification Scale; ST = Symbolic Threat Scale

Table 6

Intercorrelations – Time 2

Measures	1	2	3	4	5	6	7	8	9	10	11	12
IANX	–											
MPATAS	.50**	–										
OPATAS	.64**	.75**	–									
OVAR	-.54**	-.56**	-.69**	–								
PS	-.42**	-.60**	-.48**	.48**	–							
CQN	-.16*	.06	-.16*	.21**	-.01	–						
CQL	-.81**	-.46**	-.54**	.41**	.36**	.10	–					
BJW	.16*	.46**	.49**	-.41**	-.37**	-.05	-.10	–				
ISLAM	.41**	.44**	.52**	-.45**	-.36**	-.20**	-.22**	.27**	–			
MHS-G	.45**	.69**	.66**	-.47**	-.37**	-.09	-.39**	.45**	.52**	–		
RT	.43**	.59**	.61**	-.47**	-.50**	-.12	-.31**	.38**	.58**	.48**	–	
SJ	-.05	.20**	.21**	-.20**	-.15*	-.08	.08	.73**	.05	.25**	.09	–
ST	.40**	.61**	.66**	-.50**	-.46**	-.13	-.31**	.36**	.60**	.58**	.70**	.14*

Note. **$p < .01$; *$p < .05$. IANX = Intergroup Anxiety Scale; MPATAS = Modern Prejudiced Attitudes Toward Aboriginals Scale; OPATAS = Old-fashioned Prejudiced Attitudes Toward Aboriginals Scale; OVAR = Outgroup Variability Scale; PS = Petition Support Scale; CQN = Contact with Aboriginal People – Quantity Scale; CQL = Contact with Aboriginal People – Quality Scale; BJW = Belief in a Just World Scale; ISLAM = Islamophobia Scale; MHS-G = Modern Homonegativity Scale – Gay Men Subscale; RT = Realistic Threat Scale; SJ = System Justification Scale; ST = Symbolic Threat Scale

Imagery Study Consent Form

You are invited to participate in a **two-part**, questionnaire-based study on how imagery exercises influence social attitudes. At the end of the second component of the study, which you will be invited to complete in four weeks' time, you will be eligible to enter your contact information into a draw for:

Two prizes of $100 each
Six prizes of $50 each
Ten Tim Horton's gift certificates worth $10 each.

Please read this page carefully.

Researcher: Karissa Wall, MA candidate, Department of Psychology, University of Saskatchewan, karissa.wall@usask.ca

Supervisor: Dr. Melanie Morrison, Professor, Department of Psychology, University of Saskatchewan. Email is: melanie.morrison@usask.ca; office phone is: 306-966-2564.

Purpose and Procedure: The purpose of the present study is to develop an understanding of how imagery exercises impact social attitudes. After completing a demographics form (e.g., age, gender), you will be asked to imagine a positive interaction with a stranger of a random social background, and to write down the details of what you imagined. You will then be asked to indicate your attitudes towards a variety of social groups and perspectives. We ask you to be as honest as possible in your responses. You may choose not to respond to any question that you are not comfortable answering. The study should last approximately 20-30 minutes.

Potential Risks: There are no known risks associated with participating in this study; however, there are some questions that may be considered sensitive in nature. You may skip any questions that you do not want to answer, or exit the browser at any time. There is no penalty for withdrawing from the study. If you have any questions or concerns, you also may contact the researchers using the information provided above. If you experience any discomfort as a result of participating in the study, you are encouraged to contact the University's Student Counselling Services.

Potential Benefits: Your participation in this study will allow you to have more experience with psychological research and contribute to a better understanding of attitudes toward various social groups.

Compensation: At the end of the second component of the study, which you will be invited to complete in four weeks' time, participants will be eligible to enter their contact information into a draw for cash prizes and Tim Horton's gift certificates, as outlined above.

Storage of Data: The data will be kept on a password-encrypted computer or a locked filing cabinet for a minimum of five years in Dr. Melanie Morrison's laboratory, at which point the data may be destroyed beyond recovery. Any identifying information will not be included with the data. Only aggregate data will be used in the researcher's thesis and journal articles, as well as in presentations or posters for conference purposes.

Confidentiality: This study will be facilitated using a survey company called Fluid Surveys, which is located in the USA and subject to US laws, and whose servers are located outside of Canada. The privacy of the information you provide is subject to the laws of those other jurisdictions. By participating in this survey, you acknowledge and agree that your answers will be stored and accessed outside of Canada and may or may not receive the same level of privacy protection.

Right to Withdraw: You may withdraw from the study for any reason, at any time, without penalty or loss of compensation. However, once you complete the study, you no longer have the option to withdraw your data, as they will be pooled anonymously with other participants' responses.

Questions: If you have any questions regarding the study, please feel free to contact the researchers at the emails or numbers provided above. This project was reviewed on ethical grounds by the U of S Behavioural Research Ethics Board. Any questions regarding your rights as a participant may be addressed to the Research Ethics Office toll free at 1-888-966-2975, local 306-966-2975, or ethics.office@usask.ca. If you are interested in learning more about this study or its results, please contact Karissa Wall or Melanie Morrison at the emails or numbers provided at the top of this form and more details will be provided. If you experience any discomfort as a result of participating in the study, you are encouraged to contact the University's Student Counselling Services at 1-306-966-4920, in person on campus in Place Riel (3rd floor), or consult resources on their website: https://students.usask.ca/health/centres/counselling-services.php.

Consent to Participate: I have read and understood the description provided above. I consent to participate
in the study described above, understanding that I may withdraw from the study at any time.
Select the appropriate button.

◯ I consent to participate

◯ I do not consent to participate

1. What is your age? _____

2. Are you a university student?
○ Yes
○ No

2a. I am in the following College:
○ Agriculture and Bioresources
○ Arts and Science
○ Dentistry
○ Education
○ Edwards School of Business
○ Engineering
○ Johnson-Shoyama Graduate School of Public Policy
○ Kinesiology
○ Law
○ Medicine
○ Nursing
○ Pharmacy and Nutrition
○ St. Thomas More College
○ Veterinary Medicine
○ Other (please specify)

2b. Are you an international student?
○ Yes
○ No

3. What is your race/ethnicity? If you have a mixed racial/ethnic background, please choose as many options as apply.
○ Black (e.g., African, African American, African Canadian, Caribbean)
○ East Asian (e.g., Chinese, Japanese, Korean, Polynesian)
○ Indigenous (e.g., First Nations, Métis, Inuit)

○ South Asian (e.g., Indian, Pakistani, Sri Lanka, Bangladesh)

○ Southeast Asian (e.g., Burmese, Cambodian, Filipino, Laotian, Malaysian, Thai, Vietnamese)

○ West Asian (e.g., Arabian, Armenian, Iranian, Israeli, Lebanese, Palestinian, Syrian, Turkish)

○ Latin American (e.g., Mexican, Indigenous Central and South American)

○ White/Caucasian

○ I have a background that is not specified above (if so, please specify): _____

4. What province do you currently live in? (drop-down menu)
Alberta
British Columbia
Manitoba
New Brunswick
Newfoundland and Labrador
Northwest Territories
Nova Scotia
Nunavut
Ontario
Prince Edward Island
Quebec
Saskatchewan
Yukon

5. What is the approximate population of the village/town/city you currently live in?

○ Under 100

○ 100-1,000

○ 1,001-30,000

○ 30,001-100,000

○ 100,001-500,000 (e.g., Saskatoon)

○ 500,001-1 million

○ Greater than 1 million

6. What is your gender?

○ Male

○ Female

○ Transgender FTM

○ Transgender MTF

○ Other (please specify)

○ Prefer not to answer

7. What is your sexual orientation?
○ Heterosexual
○ Lesbian
○ Gay
○ Bisexual
○ Pansexual
○ Asexual
○ Queer
○ Other (please specify) _____

8. By my own definition, I would consider myself to be politically:
○ Very liberal
○ Liberal
○ Somewhat liberal
○ Somewhat conservative
○ Conservative
○ Very conservative

9. I attend religious services (e.g., in a church, synagogue, mosque, etc.):
○ Regularly
○ Now and then
○ On special occasions
○ Never

Appendix C: Intergroup Anxiety Scale

1. When I interact with people of an Aboriginal background, I feel accepted.*
2. When I interact with people of an Aboriginal background, I feel careful.
3. When I interact with people of an Aboriginal background, I feel defensive.
4. When I interact with people of an Aboriginal background, I feel impatient.
5. When I interact with people of an Aboriginal background, I feel certain.*
6. When I interact with people of an Aboriginal background, I feel self-conscious.
7. When I interact with people of an Aboriginal background, I feel happy.*
8. When I interact with people of an Aboriginal background, I feel irritated.
9. When I interact with people of an Aboriginal background, I feel confident.*
10. When I interact with people of an Aboriginal background, I feel suspicious.
11. When I interact with people of an Aboriginal background, I feel awkward.

Notes:
Participants responded using a seven-point Likert scale *(1 = strongly disagree; 7 = strongly agree).*
Scoring is reversed for starred (*) items.

Appendix D: Modern Prejudiced Attitudes Towards Aboriginals Scale

1. Government agencies should make every effort to meet the needs of Aboriginal people.*
2. Aboriginal people seem to use their cultural traditions to secure special rights denied to non Aboriginal Canadians.
3. Many of the requests made by Aboriginal people to the Canadian government are excessive.
4. Aboriginal people should pay taxes like everyone else.
5. It is now unnecessary to honour treaties established with Aboriginal people.
6. Special places in academic programmes should not be set aside for Aboriginal students.
7. Canada needs to stop apologizing for events that happened to Aboriginal people many years ago.
8. Non-Aboriginal people need to become more sensitive to the needs of Aboriginal people.*
9. Aboriginal people still need to protest for equal rights.*
10. The government should support programmes designed to place Aboriginal people in positions of power.*
11. Aboriginal people should stop complaining about the way they are treated, and simply get on with their lives.
12. Aboriginal people should simply get over past generations' experiences at residential schools.
13. Aboriginal people should be satisfied with what the government has given them.
14. Aboriginal people should not have reserved placements in universities unless they are qualified.

Notes:
Participants responded using a seven-point Likert scale *(1 = strongly disagree; 7 = strongly agree).*
Scoring is reversed for starred (*) items.

Appendix E: Old-Fashioned Prejudiced Attitudes Towards Aboriginals Scale

1. Aboriginal people have no sense of time.
2. Most Aboriginal people are on welfare.
3. Most Aboriginal people need classes on how to be better parents.
4. Few Aboriginal people seem to take much pride in their physical appearance.
5. Drug abuse is a key problem among Aboriginal people
6. High standards of hygiene are not valued in Aboriginal culture.
7. Diseases that affect Aboriginal people are simply due to the lifestyle they lead.
8. Most Aboriginal people cannot take care of their children.
9. Most Aboriginal people sound drunk.
10. Poverty on reserves is a direct result of Aboriginal people abusing drugs.
11. Aboriginal people have way too many children.

Notes:
Participants responded using a seven-point Likert scale *(1 = strongly disagree; 7 = strongly agree).*

Appendix F: Outgroup Variability Scale

1. When I think about Aboriginal people, I perceive them as similar to one another.*
2. When I think about Aboriginal people, I perceive them as different to one another.
3. Among Aboriginals there are different types of people.

Notes:
Participants responded using a seven-point Likert scale *(1 = strongly disagree; 7 = strongly agree).*
Scoring is reversed for starred (*) items.

1. How many Aboriginal people do you know? (Please specify the number.)
2. In everyday life, how often do you encounter Aboriginal people?
3. In everyday life, how frequently do you interact with Aboriginal people?
4. In everyday life, how much contact do you have with Aboriginal people?

Note:

Question 1 responses cannot be summed with the others; it was left out of all analyses. Participants responded using a five-point Likert scale (for questions 2-3, *1 = never; 5 = always*, for question 4, *1 = none; 5 = a very large amount*).

1. When you interact with Aboriginal people, does it feel superficial or deep?
2. When you interact with Aboriginal people, does it feel natural or forced?*
3. When you interact with Aboriginal people, does it feel unpleasant or pleasant?
4. When you interact with Aboriginal people, does it feel competitive or cooperative?
5. When you interact with Aboriginal people, does it feel intimate or distant?*

Notes:

Participants responded using a five-point Likert scale matched to question wording (e.g., *1 = very superficial; 5 = very deep*).
Scoring is reversed for starred (*) items.

1. How much do you support or oppose this petition?*
2. How important or unimportant do you think this issue is?*
3. How likely or unlikely would you be to keep supporting this issue in the future?*

Notes:
Participants responded using a five-point Likert scale matched to question wording (e.g., *1 = strongly support; 5 = strongly oppose*).
Scoring is reversed for starred (*) items.

Appendix I: Secondary Variables

Belief in a Just World Scale

1. I feel that people who meet with misfortune have brought it on themselves.
2. I feel that rewards and punishments are fairly given.
3. I feel that people get what they deserve.
4. I feel that people earn the rewards and punishments they get.
5. I feel that a person's efforts are noticed and rewarded.
6. I feel that people get what they are entitled to have.
7. I basically feel that the world is a fair place.

Islamophobia Scale

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

Modern Homonegativity Scale – Gay Men

1. Gay men still need to protest for equal rights.*
2. Many gay men use their sexual orientation so that they can obtain special privileges.
3. Gay men should stop complaining about the way they are treated in society, and simply get on with their lives.
4. Gay men who are "out of the closet" should be admired for their courage.*
5. In today's tough economic times, Canadians' tax dollars shouldn't be used to support gay men's organizations.
6. The notion of universities providing students with undergraduate degrees in Gay and Lesbian Studies is ridiculous.
7. Gay men seem to focus on the ways in which they differ from heterosexuals, and ignore the ways in which they are the same.

8. If gay men want to be treated like everyone else, then they need to stop making such a fuss about their sexuality/culture.
9. Celebrations such as "Gay Pride Day" are ridiculous because they assume that an individual's sexual orientation should constitute a source of pride.
10. Gay men should stop shoving their lifestyle down other people's throats.
11. Gay men have become far too confrontational in their demand for equal rights.
12. Gay men do not have all the rights they need.*

Realistic Threat Scale

1. Social services have become less available to Canadians because of immigration.
2. Immigrants are as entitled to subsidized housing or subsidized utilities (water, sewage, electricity) as poor Canadians are.*
3. Immigrants get more from this country than they contribute.
4. Immigrants should be eligible for the same health-care benefits received by Canadians.*
5. The quality of social services available to Canadians has remained the same, despite immigration.*
6. Immigrants are not displacing Canadian workers from their jobs.*
7. Immigration has increased the tax burden on Canadians.
8. The children of immigrants should have the same right to attend public schools in Canada as Canadians do.*

Symbolic Threat Scale

1. The values and beliefs of immigrants regarding social relations are not compatible with the beliefs and values of most Canadians.
2. The values and beliefs of immigrants regarding moral and religious issues are not compatible with the beliefs and values of most Canadians.
3. Immigration is undermining Canadian culture.
4. The values and beliefs of immigrants regarding work are basically quite similar to those of most Canadians.*
5. Immigrants should not have to accept Canadian ways.*
6. Immigrants should learn to conform to the rules and norms of Canadian society as soon as possible after they arrive.
7. The values and beliefs of immigrants regarding family issues and socializing children are basically quite similar to those of most Canadians.*

System Justification Scale

1. Canada is the best country in the world to live in.
2. In general, I find society to be fair.
3. In general, the Canadian political system operates as it should.
4. Society is set up so that people usually get what they deserve.
5. Canadian society needs to be radically restructured.*
6. Most policies serve the greater good.
7. Our society is getting worse every year.*

8. Everyone has a fair shot at wealth and happiness.

Notes:
Participants responded using a seven-point Likert scale *(1 = strongly disagree; 7 = strongly agree).*
Scoring is reversed for starred (*) items.

Post Experimental Inquiry Items

1. What did you think this study was all about? (What did you think the researchers were looking for, trying to study, etc.?)
2. When you were reading the petitions, did you have any suspicions? If so, what were they?
3. During the study, what suspicions did you have, if any?

Appendix J: Testing of Statistical Assumptions

Assumptions for the ANOVAs were checked, which included the variables intergroup anxiety, outgroup variability, and petition support. Firstly, a Shapiro-Wilk test suggested that the data, for all but the two intergroup anxiety variables, were not normally distributed, yielding values ranging from .946 to .969, and p values less than .05. The same held true when examining the data within each condition. Visual inspection of histograms showed distributions that were negatively kurtotic or positively skewed. However, given the robustness of the F statistic (Box & Andersen, 1955; Lindman, 1974), no transformations were performed.

Next, boxplots were examined to detect outliers. Ten cases were identified, though they were not extreme. To analyze their effect on the results, hypothesis testing was conducted both with and without the outliers included in the dataset. No change in the pattern of results was observed, therefore the outliers were not removed. The assumption of homogeneity of variance was met for the between subjects ANOVAs involving all three variables at Time 1, intergroup anxiety ($F = .118, p = .731$), outgroup variability ($F = .019, p = .892$), and petition support ($F = .201, p = .655$), and Time 2, intergroup anxiety ($F = .154, p = .696$), outgroup variability ($F = .739, p = .391$), and petition support ($F = .386, p = .535$).

The MANOVA assumptions involved examination of the modern and old-fashioned prejudice variables. For the between subjects MANOVA at Time 1, there were 146 participants in the Aboriginal condition and 161 in the unspecified condition. At Time 2 there were 98 and 115 participants per condition, respectively. For the repeated measures MANOVA, there were 212 participants included; thus sample size requirements were met[15]. Three cases were identified

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[15] "Exact recommendations for the optimal sample size range from a minimum of 20 observations per cell to one in which the sample size of the smallest group is somewhere between 6 and 10 times the number of dependent variables" (Bates, 2005, p. 137).

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as multivariate outliers as their Mahalanobis' distance scores exceeded the critical chi-square value of 13.82. In addition, four univariate outliers were detected through an examination of boxplots. Analyses involving these variables were conducted with and without the outliers present. Since the pattern of results remained the same, the outliers were not removed.

Shapiro-Wilk tests of normality were significant for all variables, all ps $\leq .01$. Observations of each variable's histogram further confirmed the violations of normality, as they tended to have some degree of negative kurtosis or positive skewness. However, as the F statistic is known to be robust against violations of the normality assumption (Box & Andersen, 1955; Lindman, 1974), no transformations of the data were performed and the MANOVAs were carried out as originally planned.

Scatterplots showed a linear relationship between the dependent variables. Further examination of the relationships between the dependent variables showed a correlation of .671 at Time 1 and .748 at Time 2, both of which were statistically significant, $p < .001$. In assessing multicollinearity, Berry and Feldman (1985) suggest an r value of .8 as a cut-off, but note that this is an arbitrary distinction and the degree of multicollinearity present in the dataset will depend on multiple factors. Since the correlations approached .8, further collinearity diagnostics were conducted. For both Time 1 (1.82) and Time 2 (2.28), variance inflation factor scores were below five. Moreover, all tolerance scores (Time 1 = .551; Time 2 = .440) were well above the recommended cut-off of .1 (Field, 2005). Given these findings, it appears that multicollinearity is not a substantial concern for the main analyses.

Lastly, Box's M test was conducted to assess the assumption of the equality of variance-covariance matrices. Yielding a value at Time 1 of .012, $p = 1.00$, this non-significant finding suggested that the assumption was met. The same was true of Time 2, with a value of .384, $p =$

.944. Moreover, Levene's tests showed evidence of homogeneity of variance for both dependent variables; at Time 1 for modern prejudice, $F = .248$, $p = .619$, and for old-fashioned prejudice, $F = .117$, $p = .732$. At Time 2 for modern prejudice, $F = .001$, $p = .973$, and for old-fashioned prejudice, $F = .742$, $p = .742$.

Appendix K: Hypothesis 4 Results

A series of between-subjects ANOVAs on the Time 2 data showed no statistically significant effects; for intergroup anxiety, $F(1, 211) = 2.56$, $p = .111$; for outgroup variability, $F(1, 209) = 0.739$, $p = .391$; and for petition support, $F(1, 181) = 0.386$, $p = .535$. Scores remained nearly the same for those in the Aboriginal condition compared to those in the unspecified condition, respectively, for intergroup anxiety ($M = 38.85$, $SD = 10.77$; $M = 36.55$, $SD = 10.14$), outgroup variability ($M = 15.04$, $SD = 3.31$; $M = 15.43$, $SD = 3.31$), and petition support ($M = 11.05$, $SD = 2.59$; $M = 11.29$, $SD = 2.67$).

To test the conditions' effects on prejudice at Time 2, a between-subjects MANOVA was conducted. This test showed no significant effect, $V = .017$, $F(2, 210) = 1.786$, $p = .170$. Participants in the Aboriginal condition ($M = 52.74$, $SD = 17.60$) scored similarly on the modern prejudice measure compared to those in the unspecified condition ($M = 48.44$, $SD = 17.85$). Participants in the Aboriginal condition ($M = 37.72$, $SD = 11.99$) also scored similarly on the old-fashioned prejudice measure compared to those in the unspecified condition ($M = 34.74$, $SD = 12.40$). Finally, to test the likelihood of signing the petition, based on condition, a chi-square was conducted. The result at Time 2 was non-significant, $\chi^2 (1, N = 212) = 1.41$, $p = .234$, Cramer's $V = .082$. Forty-eight percent of participants in the Aboriginal condition signed the petition compared to 56% in the unspecified condition.

Valence Rating Scale:

1 = very negative experience

    - participant felt threatened, that the other person was hostile, that the interaction was very upsetting, or other overtly, clearly, and completely negative descriptions

2 = negative experience

    - participant felt a lesser degree of the description above, and overall the encounter was felt as negative

3 = mostly negative

    - participant may have had some positive-leaning emotions but overall it was a negative experience, even if not overwhelmingly so

4 = mixed or neutral

    - participant reported feeling equal amounts of positive and negative emotions (e.g., started out somewhat uncomfortable, then became comfortable); alternatively, participant reported feeling neutrally about the interaction (e.g., a lack of interest in the conversation while not feeling as though it was a negative experience, or noting an absence of negative emotions but not mentioning positive ones either)

5 = mostly positive

    - participant reported feeling calm or relaxed (as instructed by the prompt, but did not go any more positive than this); or, the participant reported a positive experience (as described below), but may have experienced some minor negativity as well

6 = positive experience

    - participant goes beyond the prompt and uses descriptors like: interesting, enjoyable, happy, and so on; does not describe feeling negatively

7 = very positive experience

    - participant experiences a significantly more intense version of the previous description; this may include mentions of feeling inspired, hoping for future contact with the person, or using very evocative language (e.g., was "thrilled" to have met the person); the presence of one of the descriptors (e.g., hoping for future contact) only merits a 7 if the rest of the description is an overtly positive one (i.e., generally a 7 should be 'difficult' to obtain)

Additional Notes:

- Under circumstances where choosing between one category or another proves very difficult, a half-point can be given, but should be used sparingly. This may include when a participant reports, for example, an overwhelmingly positive experience (worthy of a 7) but also described some initial negativity. This would merit stepping down a half or full point (to a 6.5 or 6) depending on the degree of

initial negativity. In addition, if there is ambiguity that requires interpretation by the reader to decide between two options, a half point can be given instead.

- As a general principle, the interaction should be scored as a whole but with a slight emphasis, when appropriate, given to how the interaction ended.

- If participants do not give any valence information (e.g., they only report what they talked about or their interaction partner's appearance), then no rating should be given. This includes when the only valence information requires guessing to know if it is positive or negative (e.g., if a participant describes being surprised by something and there is no other indication about whether this is good or bad).

Valence Rating Examples

"She is an old lady (in her 90's - pretty successful professionally) but very young and energetic person in her attitude. We spoke about the weather, day to day routine activities, her life, what was she doing now, her career, her personal life and challenges she faced till date. The conversation was very inspiring and the wisdom that she shared was very thoughtful - could help me in making better choices in life."

7 (very positive): interaction partner is described with very positive traits, participant feels inspired and that the conversation will have a lasting impact on their life.

"I imagined I got on the train and the train car was fairly empty. I sat down on a bench seat close to an aboriginal man. He was young, about 25. He had a slender build and thick short black hair and wore comfortable but fashionable clothing. I smiled at him when I sat near him in greeting and he smiled back. We rode the train for a little bit before he pointed out a pin on my backpack that had the symbol of an anime I like and said it was one of his favourite shows. We talked about that anime for a while, him doung most of the talking as I am horribly shy around people I don't know well. He is warm and enthusiastic as he talks. We talk about other animes that we like and suggest a few to each other. We then talk about our destinations. We are both going to the university. I tell him I'm heading there for an early morning class. He tells me he's going to work. He works at the Starbucks at the university as a barista. Today he's covering an early shift for his friend who isn't feeling well. He tells me he is also a student. He is doing graduate studies in geology. Our train reaches the station by the university and we both get out. We wave goodbye to each other as we head our different ways."

6 (positive): smiling back and forth, talking about a mutual interest, describing the interaction partner as 'warm and enthusiastic', waving goodbye at the interaction's end; while the participant notes being shy around people they don't know, they frame it as an internal trait and that it doesn't really impact the conversation, since the other person picks up the slack and they end up covering multiple topics in a seemingly fluid and natural fashion. If the person had described themselves as anxious and that they were struggling to keep the conversation going, that would have merited a drop to 5 (or 5.5 if the degree of anxiety they reported was more minor).

"The person looked to be about 20 years old. We talked about our education, travelling, and her family. I felt happy and calm during the conversation. We both were in university, but I was surprised to learn that she was already married with a young child."

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6 (positive): talks about being happy during the conversation. Also mentions being surprised that she has a child. Because it's unclear whether this impacted the participant's perceptions in a positive or negative way, it does not impact the rating. It's also worth noting that a very short description such as this one merits a 6 just as much as a more elaborate and detailed description.

"It was casual, we were around the same age (he was older 20s) and we talked about what we were studying/our jobs. I was impressed by his high ranking in whatever trades job he was in. He was very successful and had a gorgeous dog. (I like dogs)"

6 (positive): while the conversation is described as casual (would be a 5 if that was all there was to go on), this is supplemented by the participant describing being impressed with the person and liking their dog.

"Long, straight, silky black hair. Minimal makeup, natural look. Simple clothing, maybe jeans and a plain coloured shirt. Talked about school and family, felt calm and relaxed."

5 (mostly positive): mentions being calm and relaxed but doesn't go beyond this into more positive territory.

"The person sat beside me on the train and was wearing casual clothing. We talked about where we were studying and what we were studying. I felt a little awkward because I don't really enjoy talking to strangers on public transit, but this person was very nice so that helped me feel more comfortable."

4 (mixed/neutral): feels awkward initially (would be a 3 on its own) but then describes the person positively and talks about feeling increased comfort from the beginning of the interaction

"He was was a young man dressed casually but appeared well kept. We discussed what he did for a living and his family. I felt a little bit anxious as I get nervous talking to strangers and those I do not know very well, but he was in no way intimidating or scary."

3.5 (between mostly negative and mixed/neutral): the person mentions feeling a bit anxious, which on its own would qualify as a 3. However, since they also note that their interaction partner was not at all "intimidating or scary," this bumps up the ranking by .5. If the person had not mentioned feeling anxious, this would've qualified as a 4, since they simply note an absence of negative emotions but also don't include anything positive. In this case, choosing the 3.5 is an appropriate average between the two points.

"She had long brown hair and bangs, we talked about our families and friends and what we did for a living, to which we both worked in health care. She was telling me about how she was getting ready to do some more traveling as she had already done a bunch in her life."

No rating: while they discuss some things they have in common, there's no information about how the participant (or even their interaction partner) felt.