

White-presenting Indigenous peoples

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Abstract

Indigenous individuals who physically appear White, or White-presenting Indigenous Peoples (WPIPs) are a growing and unique group. Previous research indicates multi-dimensional discrimination, coming from darker-skinned Indigenous peoples (DSIPs), WPIPs themselves, and White people (Lawrence, 2004). The purpose of this study was to understand the experiences of WPIPs utilizing a model of horizontal hostility (White, Schmitt, & Langer, 2006) and expectancy violation theory (e.g., Jussim, Coleman, & Lerch, 1987). Participants were 242 university of Saskatchewan students and community members (121 self-identifying as Indigenous and 121 self-identifying as White). All participants were randomly assigned to one of three conditions to view a medical school application: a WPIP target, a DSIP target, or a White target. Participants then rated the candidates on a series of traits. Results did not support horizontal hostility as modelled by White et al. (2006), whereby darker-skinned Indigenous participants would rate the WPIP candidate worse than the White candidate. Findings did, however, support the definition of horizontal hostility (White et al., 2006), as Indigenous participants rated the WPIP candidate worse than the DSIP candidate, and themes of horizontal hostility were identified in answers to open-ended questions. Findings also indicated support for in-group bias on behalf of Indigenous participants, and expectancy violation theory on behalf of White participants, as both Indigenous and White participants rated the Indigenous candidates better than the White candidate. Results are discussed within the context of lateral violence and modern prejudice.

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Dedication

This thesis is dedicated to my late sister, Mikayla Jade Efimoff. She inspires me daily.

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Chapter 1: Introduction

The purpose of this thesis is to assess the impact of ethnicity and physical appearance on the ratings of medical school applicants via an online experiment. Specifically, we are interested in ratings of medical school applicants who are White-presenting Indigenous Peoples ([WPIPs], individuals who physically appear White but identify as Indigenous). First, we provide a very brief overview of Indigenous peoples in Canada, and then a more specific literature review addressing WPIPs. The methods, procedures, results, and discussion of the current study are then presented.

Indigenous peoples in Canada are those who identify as First Nations, Inuit, and Métis. Other names for Indigenous peoples include First Peoples, Aboriginal, Native, Native American, and Indian. Indigenous histories indicate that Indigenous peoples have been here since time immemorial, pre-dating European-settlers in what most people now call Canada. Indigenous peoples are currently the fastest growing demographic in the country (INAC, 2010).

Though the conditions of Indigenous communities in Canada are not the purview of this paper, information on the mental and physical health of Indigenous peoples will be briefly reviewed to provide context for those who may be unfamiliar. Mental health can be defined as “a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community” (WHO, 2014). According to Nelson and Wilson, Indigenous individuals face more mental health issues than their non-Indigenous counterparts (2017). The authors’ review indicates many risk factors for the poor mental health of Indigenous people, and they organize these factors into five areas: social determinants, current mental health services, prevalence, promotion of mental health practices, and research on mental health. One theme present in all five areas was the impacts of colonialism on Indigenous mental health and Indigenous mental health research. A particularly powerful example within this review comes out of research by Elias et al. (2012), which indicates that individuals who either attended residential school, or were descendants of residential school survivors, were more likely to have suicidal thoughts and attempts than those who did not have the same connection to these institutions.

Physical health exists when an individual is “capable of “allostasis”—the maintenance of physiological homeostasis through changing circumstances. When confronted with physiological stress, a healthy organism is able to mount a protective response, to reduce the potential for harm, and restore an (adapted) equilibrium” (Huber et al., 2011, p. 2). While a broad review of Indigenous physical health in Canada has not been published in a peer reviewed journal (to the knowledge of this author), grey literature¹ provides overviews. The National Collaborating Centre for Aboriginal Health (2013) indicates that Indigenous peoples are disproportionately affected by health issues when compared to non-Indigenous peoples. For example, Indigenous individuals experience systematically higher rates of child mortality, substance-caused death and sickness, and higher rates of obesity and subsequent lifestyle-related diseases. Indigenous peoples are overrepresented in HIV infection rates, tuberculosis, and type 2 diabetes. Statistics Canada provides a broad range of health indicators for Indigenous peoples. Their latest collection of the Aboriginal Peoples Survey in 2012 indicates that Indigenous peoples 15 and older (off-reserve) are less likely to report “excellent or very good” health (para. 1), are more likely to have a chronic disease, are more likely to smoke, and are more likely to experience food insecurity than the non-Indigenous peoples (Rotenberg, 2016).

Many of the discrepancies in Indigenous and non-Indigenous health can be attributed to discrimination. Discrimination is “an action or a decision that treats a person or a group badly for reasons such as their race, age or disability” (Canadian Human Rights Commission, n.d.). Discrimination is an everyday occurrence for Indigenous individuals, with examples being manifold: an Indigenous woman dying after a trailer hitch was thrown at her from a moving vehicle in Thunder Bay, Ontario (Porter, 2017); overt and covert racism in post-secondary institutions, which are supposed safe, inclusive, and liberal spaces (Bailey, 2016); research participants being less willing to support welfare benefits going to an Indigenous target than a non-Indigenous target (Harell, Soroka, & Ladner, 2014); overall negative experiences with health care, including blatant racism, health worker assumptions of intoxication or addictions, and dismissal of cultural traditions (Hole et al., 2015); and the need for repeated inquiries into police responses and violence towards Indigenous peoples, with decades of no tangible action (Palmater, 2016). Discrimination has led to explicit health impacts, with research indicating that

¹ Grey literature includes reports and other documents released by bodies whose purpose is not primarily publication (Health Sciences Library & Informatics Center, 2018).

some Indigenous women staunchly refuse mainstream health care due to their experiences with discriminating health care workers (Kurtz, Nyberg, Van Den Tillaart, Mills, & Okanagan Urban Aboriginal Health Research Collective, 2008). This is a very obvious case in which discrimination has a direct impact on the health of Indigenous peoples. Aside from these obvious physical harms, racism can have more insidious and long-lasting impacts: research has shown negative mental health outcomes for Indigenous people in Canada stemming from discrimination, such as loss of concentration and drive for success in school (Currie, Wild, Schopflocher, Laing, & Veugelers, 2012), and suicidal ideations or attempts (Elias et al., 2012).

In spite of this adversity, Indigenous peoples are extremely resilient. Resistance to colonialism spans decades, as Indigenous peoples have fought for sovereignty and land since early settler contact (Tobias, 1992). This resistance exists today in many forms, through, for example, movements like Idle No More (Idle No More, n.d.), or the decision of many Indigenous individuals to resist celebrations of Canada's 150th birthday, as the celebration perpetuates inaccuracies regarding the age of the land and the first peoples on it (Dinh, 2017). Despite colonial efforts to 'kill the Indian,' Indigenous peoples have held onto their culture, and for good reason: preliminary research has indicated that Indigenous culture can help to lessen the impacts of racism (Spence, Wells, Graham, & George, 2016). Further research indicates that connections to culture, community, and family help to protect against the negative mental health impacts of societal changes (such as globalization and nation-wide assimilation policies) and climate change in remote Indigenous communities (Petrasek MacDonald et al., 2015). Nelson and Wilson (2017) provide an overview of articles which indicate that Indigenous culture, identity, and community can improve mental health.

A single blatant issue with the above research is the tendency to lump First Nations, Métis, and Inuit peoples into one monolithic group (see Nelson and Wilson, 2017), despite compelling arguments to the contrary (Statnyk, 2015; Hurley & Wherrett, 2000). Different Indigenous groups across Canada have vastly different cultural practices, languages, territories, diets, stories, and so forth. Within these three overarching groups, there are many sub-groups. First Nations women, for example, have different experiences than Inuit or Métis women in a variety of areas, such as education and income (Arriagada, 2016). First Nations peoples in coastal territories have very different cultures and traditions than those who are landlocked. For example, prairie-based cultural practices offered to incarcerated Inuit individuals are not

appropriate cultural care, and may have minimal impact (Statnyk, 2015). Furthermore, some of these groups are consistently or systematically overlooked by researchers (such as Métis peoples, Nelson & Wilson, 2017).

Embedded within these overlooked groups is a subset of Indigenous people who are White-presenting. White-presenting Indigenous peoples (WPIPs) are individuals who look White but identify as Indigenous. They are the primary focus of this research. This group is under-researched, with only one known study investigating the experiences of WPIPs (Lawrence, 2004). This lack of research exists despite the expected growth of this subset of the Indigenous population in the near future (Lawrence, 2004). Some may challenge the uniqueness of this group, citing overlap with racially ambiguous peoples (people who “cannot be easily classified racially on sight” Smith, 2012, p. 1).² The distinction lies within WPIPs physical appearance, as they could never be mistaken for anything but “White.” Lawrence (2004) eloquently explains the importance of appearance in ethnic identity: “nativeness also depends on how you are defined by others – which, in the White society, depends to a phenomenal extent on how you look” (p. 173).

1.1 White-presenting Indigenous Peoples (WPIPs)

Research on the experiences of WPIPs is scarce, and this section draws solely from the one known publication on multi-racial Indigenous participants (Lawrence, 2004). Lawrence interviewed 29 (21 female) Canadian lighter-skinned self-identified Indigenous peoples, living in Toronto, Canada, and actively involved in their Indigenous communities. Twenty-seven participants were of White and Indigenous background, two were tri-racial (White, Indigenous, and another ethnic identity), and a minority of participants were Indigenous from South America. Lawrence utilized an Indigenous methodology which consisted of reflexive thinking, and consulting knowledge holders and elders to frame her research and data collection. Participants discussed their experiences in regards to their privilege, denials of their Indigenous identity by both White people and Indigenous peoples, and the limits of Indigeneity (which were mostly centred around blood quantum – concerns around how much ‘Indian blood’ you had to have to be ‘Indian’). Lawrence explains that in a White society, outsiders assume your cultural identity based on how you look. This means that darker-skinned Indigenous peoples (DSIPs) have no

² Other research on racially ambiguous individuals can be considered for those who wish to look more broadly. This research looked explicitly at individuals who appear White but identify as Indigenous. This is important for the theories applied (i.e., the ability to “pass” that is discussed in a later section on horizontal hostility).

‘choice’ in their cultural identity, and contrarily, lighter-skinned Indigenous peoples have the ‘choice’ to ‘reveal’ their cultural identity or not. The author indicates that intermarriage is increasing, especially in large urban centers in Canada, and for Indigenous communities to survive, there will necessarily be more lighter-skinned Indigenous peoples.

While the DSIPs interviewed in this study argued explicitly that skin colour was not an important part of Indigenous identity, they simultaneously expressed the importance of “appearing” Indigenous in connecting with their community. For example, in urban centres in particular, dark skin was seen as a proxy for Indigeneity. Thus, when one Indigenous person saw another Indigenous person (as indicated by skin tone), it could induce feelings of safety, Indigenous community, and shared history in a colonial world. However, other markers successfully indicated Indigenous identity as well: both White-presenting and darker-skinned Indigenous participants indicated that if an Indigenous person appeared White but had other strong cultural ties (such as speaking an Indigenous language), Indigenous identity was not questioned.

According to Lawrence’s (2004) work, lighter-skinned Indigenous peoples experienced multidirectional discrimination. Several lighter-skinned Indigenous peoples shared stories of being discriminated against within their own communities, by their darker-skinned community members, under the assumption that they were not Indigenous. Indeed, stories indicated the presence of outright denial of WPIPs’ cultural identity, ostracism, bullying, and in some cases, potentially deadly violence. In the latter case, a young half-Indigenous girl was shot at by Indigenous community members while playing in her back yard; the motive of which was her White-Indigenous mixed heritage. Perhaps in response to these experiences, some of the participants indicated that they desired to look more like an Indigenous person, and were angry with their families for marrying and having children with White people. They also dealt with discrimination from the non-Indigenous community: they heard general discriminatory comments towards Indigenous people from their non-Indigenous friends or peers, who assumed that they were not Indigenous.

Lastly, the interviews elucidated a large amount of ‘self-discrimination,’ in that these individuals felt that they were not ‘Indian enough’ and did not really belong in Indigenous communities. The lighter-skinned Indigenous participants explained that they had to negotiate their identity with White people, Indigenous people, and themselves, with their identity often

being denied by all parties. For example, one woman recalls arguing vehemently with a boy in grade school about her Indigenous identity, as he was sure she could not be Indigenous due to her lighter complexion. One participant only identified as Indigenous through her mother: she used a photocopy of her mother's status card to assert her identity. She indicated that she did not feel native on her own, and was thus internally negotiating her Indigeneity. Given the growing population of WPIPs, ongoing mental health crises in Indigenous communities across Canada (e.g., a suicide pact in an Indigenous community, resulting in the death of three 12 year old girls; Schmidt, 2017), and the protective nature of culture on mental health (Nelson & Wilson, 2017), understanding WPIPs' experiences is important to support the health of Indigenous persons in Canada. Furthermore, the belief that Indigeneity is quantified by blood is inherently colonial and should be challenged by Indigenous peoples everywhere, as Indigenous peoples are more than a colonial construction of 'race.'³ Blood quantum standards for Indigenous identity will ultimately result in the erasure of Indigenous peoples from the Canadian landscape, as more "intermarriage" between Indigenous and non-Indigenous individuals occurs (Rutherford, 2010, p. 11).

1.1.1 Racial stereotypicality. Something that is not addressed in Lawrence's (2004) research is what a "typical" Indigenous person looks like. Some research suggests that individuals who are racially stereotypical (for Black individuals this would mean "dark skin, broad nose, and full lips" Kahn & Davies, 2011, p. 570) are more likely to be stereotyped according to Black stereotypes. A depiction of a stereotypical Indigenous individual with high face validity was utilized in the current study: dark skin, dark eyes, and dark hair.

1.1.2 White privilege. WPIPs undoubtedly experience privilege over their darker-skinned counterparts, as Lawrence (2004) documents. In one case, when a visibly Indigenous woman was about to be arrested for not being registered at a hotel and 'causing trouble' (p. 178), a lighter-skinned Indigenous person intervened and told the hotel staff that he had better be arrested as well because he was also not registered; the hotel staff let both of the individuals go. Furthermore, some participants undoubtedly experienced White privilege and leveraged it to gain skills from both mainstream and Indigenous communities to eventually become successful, and saw no irony in asserting an entirely Indigenous identity. Lawrence's findings indicate

³ Many Indigenous peoples hold on to the importance of blood quantum as a way to identify as Indigenous, such as two Indigenous women posting advertisements for a full status Indian male to donate sperm (Monkman, 2017), but others, like Bonita Lawrence, view this concept as inherently colonial (Rutherford, 2010).

undeniable privilege attached to lighter-skinned Indigenous people's experiences, and the likely compounding nature of gender and class (e.g., a lighter-skinned, middle-class Indigenous man will likely experience more benefits than a working-class Indigenous woman with the same complexion).

As such, the purpose of this research is not to make the White-appearing Indigenous individual a victim or to understate their privilege. It is important to acknowledge that White privilege is a very real occurrence in current society (Boatright-Horowitz, Frazier, Harps-Logan, & Crockett, 2013). White privilege can be understood as “an invisible package of unearned assets... like an invisible weightless knapsack of special provisions” of which White people are “meant to remain oblivious” towards (McIntosh, 1998, p. 1). Systemic White privilege has been empirically identified in several different contexts. For example, after interviewing 22 female secondary school teachers (seven who identified as Black⁴, six who identified as Mexican-American, and nine who identified as White) in the Southern United States, Rauscher and Wilson (2017) indicated that White privilege afforded self-identified White teachers mental health protection: they perceived fewer stressors, and no race-related stressors, when compared to self-identified Black and Mexican-American teachers. Further, research indicates that White individuals are less likely than individuals of other ethnic identities to become homeless when jobless, go to jail after having committed crimes, and to die from illness (Phillips & Lowery, 2015).

1.2 Racial Passing and Multiraciality

While the individuals in Lawrence's (2004) work chose to ‘come out’ as Indigenous, not all White-presenting peoples do so. “Racial passing” or “White passing” is when a person of colour can ‘pass’ as a White individual. This occurred with some frequency in the United States, where some self-identified Black individuals would ‘pass’ as White to seek a better life (e.g., Hobbs, 2014). There is limited empirical research on racial-passing, although there are many commentaries or essays written on the topic. One of the most famous is “Passing for White, Passing for Black” written by Adrian Piper (1992). Piper experienced denial of her Black and White identities, by both Black and White individuals. These experiences were ‘extremely alienating and demoralizing’ (p. 7) for Piper, and she began to avoid people as much as possible

⁴ The terms “Black” and “White” are used to reflect what is used in the social psychological literature.

due to the lack of acceptance from either social group. She also emphasizes that she has a hard time forgiving those individuals who choose to pass as White, because they have voluntarily given up their family, culture, and “moral solidarity” (p. 13) in order to pass.

There are many overlapping experiences between the participants of Lawrence’s (2004) work and Piper’s (1992) essay. One interviewee indicated that their family denied their Indigenous ancestry (Lawrence, 2004), and ultimately attempted to lead their lives as “White” individuals. There are also stories of children with Indigenous and European ancestry being ostracized by both groups, and being isolated, and experiencing subsequent negative mental health ramifications, akin to Piper’s (1992) experiences with Black and White communities leading to her feelings of alienation and avoidance of others.

Intrinsically linked with the concept of racial passing is bi- or multiraciality. The study of such topics yields useful information for the study of WPIPs. In two studies, Sanchez and Bonam (2009) investigated the perceptions of White students attending a university in the Northeastern United States towards mixed race, majority, and minority group targets applying for scholarships. In Study 1, 181 undergraduate students rated targets (either “Black” and “White”, “Black”, or “White”) on a series of positive social traits. Results indicated that mixed race targets were perceived as less warm and less worthy of receiving a scholarship reserved for minority groups. The researchers replicated this finding in Study 2 ($N = 163$), this time employing an “Asian” target as the evaluative minority category. Results were the same as the first study, in that biracial Asian/White targets were perceived as less warm, and less worthy of scholarships than monoracial Asian targets. Furthermore, participant ethnicity (as roughly half of the participants identified as Asian) did not influence the evaluation of targets. In all, both of these studies indicate that individuals identifying as biracial were rated less favourably than monoracial individuals. In this study, the phrase “White-presenting” is used, instead of White-Passing, to indicate that some of these individuals present as White, but do not necessarily “pass” as White (i.e., live hiding their non-White ethnic identity).

1.3 Horizontal Hostility

Despite the dearth of research on WPIPs, particular social psychological phenomena may explain the experiences of Indigenous individuals who do not look Indigenous. One such phenomenon is referred to as horizontal hostility. Horizontal hostility reflects unidirectional hostility directed from a more distinct group to a less distinct (i.e., more mainstream) group, in

which both groups are part of a larger social category. An early example of horizontal hostility can be found in Sturnick and Howards' (1977) commentary on the experiences of outspoken feminist female faculty at universities in the United States in the 1970s. Their research indicated that more mainstream female faculty (i.e., less outspoken feminists) directed horizontal hostility towards these outspoken faculty members, namely in the form of isolation and alienation. The rationale given for this behaviour was manifold, ranging from fear of losing male favours and rewards to fear of losing employment. While in this case, the direction of the hostility was from the more mainstream to the more distinct, this is an illustration of how similar people dislike each other. The process of horizontal hostility has also been evident in relations between men who identify as gay (more distinct and further removed from a mainstream heterosexual identity) and men who identify as bisexual (more mainstream due to potential heterosexual behaviour). Califia (1997) explores sex zones in San Francisco in essay format, and explains that men who identify as gay were hostile towards bisexual men, given the latter's lack of exclusive gender attraction. This is another early example of research on horizontal hostility.

Horizontal hostility can be explained by social identity theory (SIT; Tajfel, 1978; Tajfel & Turner, 1979). Social identity theory encompasses concepts such as ingroup bias, status inequality responses, stereotypes, and the impact of contact on intergroup attitudes (Brown, 2000). It postulates that individuals seek a positive social identity, and that the uniqueness of the social group contributes to one's positive social identification (Tajfel, 1978; Tajfel & Turner, 1979). Furthermore, the uniqueness of a social group is an important part of the security of that group, as the group maintains its power and exclusivity when not just anyone can join. The similarity hypothesis, based on SIT, argues that groups that threaten a social group's unique identity will be less liked, as they will be viewed as reducing the positive social identity of a group (Tajfel, 1982). Utilizing research based in SIT, White and Langer (1999) evaluated contradictory evidence about relationships between similar groups. Some research indicates that similar groups should be attracted to and like each other, and other research indicates that similar groups should dislike each other: their articulation of horizontal hostility attempts to provide some clarity as to why this occurs.

It is from this literature on SIT that White and Langer (1999) conceptualized horizontal hostility. They defined horizontal hostility in their later work as:

an asymmetric pattern of intergroup attitudes in which members of minority groups express relatively unfavorable attitudes towards members of an outgroup that is both similar to, and more mainstream than, the ingroup, while expressing relatively favorable attitudes towards members of an outgroup that is similar, but more extreme than the ingroup (White, Schmitt, & Langer, 2006, p. 340).

Figure 1.1 provides a visual model of horizontal hostility.

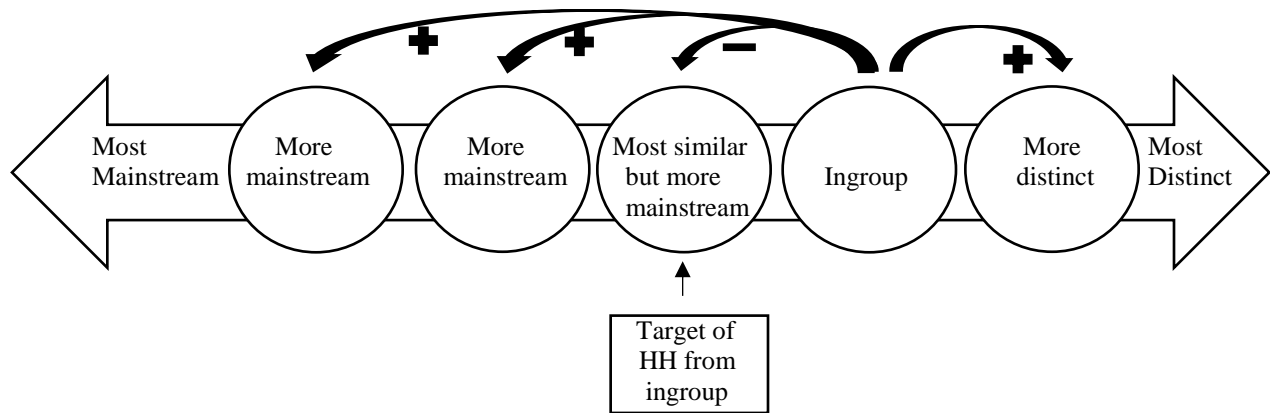


Figure 1.1. Horizontal hostility. A visual representation of horizontal hostility (adapted from White et al., 2006): the ingroup views those that are more distinct (i.e., to the right) positively, but views those that are less distinct but close to their own group (i.e., directly to the left) negatively. Any group more mainstream than the closest group (i.e., to the left) is viewed positively. The plus signs and negative sign indicate the positive or negative attitude from the ingroup to the other groups. HH = horizontal hostility.

White and Langer (1999) initially describe the phenomenon in the context of gay men as a social group. Specifically, they reasoned, men who identify as gay might dislike men who identify as bisexual because bisexual men might make the gay social group *less* distinctive, or more mainstream. This is because men who identify as bisexual can ‘pass’ as straight when in a relationship with a woman, thus decreasing the distinctiveness of the gay social group, which might make it difficult to tell who is and is not a member of the group. However, men who identify as gay would likely not harbour resentment towards “lesbian and gay extremists” (p. 541), because they contribute to gay men’s distinctiveness from the heterosexual majority (White & Langer, 1999).

To examine horizontal hostility, White and Langer (1999) first assessed 85 Jewish students' perceptions of Jewish targets who ranged from non-practicing to Hasidic. The mainstream-distinctiveness continuum on which to observe horizontal hostility is nonpracticing (most mainstream), reform, conservative, orthodox, and Hasidic (most distinct). Participants responded to a series of questions assessing attitudes towards targets, stated as follows: "[trait] is one of [target's] strengths" on a 1-5 Likert type scale (1 = *not at all*; 5 = *extremely*). The traits were appearance, honesty, intelligence, kindness, and religion, with the answers to all of these statements being combined for each participant to assess their attitudes towards the target in question. The results supported the authors' predictions, such that participants displayed horizontal hostility towards individuals who belonged to a similar but more mainstream ingroup than themselves: conservative Jewish individuals (less mainstream) rated reform Jewish targets (more mainstream) *less favourably* than non-practicing Jewish targets (most mainstream). This means that the conservative Jewish participants rated the slightly less conservative targets *more negatively* than the much less conservative, non-practicing, targets, presumably because the slightly less conservative targets made their Jewish group *less* distinctive; the non-practicing Jewish targets are so different than the practicing sects, that they are not a threat to distinctiveness. There was a positive correlation between Jewish identity and horizontal hostility, in that the stronger a participant identified as Jewish, the more horizontal hostility was expressed towards slightly more mainstream Jewish targets.

Secondly, White and Langer (1999) studied horizontal hostility in 49 participants who identified as either intramural, junior, or varsity soccer players. The mainstream-distinctiveness continuum on which to observe horizontal hostility would be intramural (most mainstream), junior, and varsity soccer players (most distinct). Participants rated targets on 3 traits (honesty, intelligence, and athletic ability) by marking their perception of the average player on a 12.2 cm line, in addition to marking two lines, one for the lowest and one for the highest player in terms of that trait. The authors found that varsity team members (most distinctive) had *less* favourable views of junior varsity team members (more mainstream) than intramural team members (most mainstream), indicating horizontal hostility. Participants' views of targets were uncorrelated with their perceived degree of similarity between themselves and the targets, and thus White and Langer (1999) concluded the phenomenon is not based on similarities. Furthermore, horizontal

hostility is borne from the interaction between target and participant group identification, and is thus not explained by overall prejudice towards the group in question.

White and colleagues (2006) designed three studies to investigate horizontal hostility with regards to Greek political affiliation ($N = 96$), vegetarians and vegans ($N = 115$), and Ivy League schools ($N = 202$). The dependent variable in each study was similar to that in previous research (ratings on positive social traits: e.g., attractiveness, fiscal responsibility, honesty, intelligence) as well as the single item measure “How positive is your own attitude towards [target]?” (p. 347). The mainstream-distinctiveness continua on which to observe horizontal hostility were as follows: for Greek political affiliation, conservative (mainstream), socialist, progressive, and communist (most distinct); for vegetarianism, omnivore (mainstream), vegetarian, vegan (most distinct); and for Ivy League Schools, typical college (mainstream), Cornell, Dartmouth, Princeton (most distinct). Results were consistent with White and Langer’s (1999) previous research, indicating a unidirectional pattern of horizontal hostility from more distinct groups towards groups that are more mainstream. This series of studies also indicated that outgroup salience impacts horizontal hostility. Across the series of studies, outgroup salience was manipulated by having one group answer a set of priming questions from the perspective of the general public. For example, after reading instructions designed to prime a superordinate, majority identity (“We are not interested in your individual opinion, only in the habits of the general public. Please answer a few questions about most Americans” White et al., 2006, p. 347), one group responded to a series of simple questions about favourite meals, forms of exercise, and favourite season of most Americans. The group answering the majority group priming questions expressed more horizontal hostility than the group not presented with the priming questions.

Rothgerber (2014) also used the horizontal hostility framework to experimentally investigate the attitudes of ethical and health vegetarians and vegans towards each other. The mainstream-distinctiveness continuum on which to observe horizontal hostility is health vegetarians (most mainstream), ethical vegetarians, health vegans, and ethical vegans (most distinct). Outgroup salience was manipulated by asking the high mainstream salience condition to first rate omnivores before rating vegan or vegetarian targets (the low mainstream salience condition went directly to rating). Participants answered two questions that made up the dependant variable (overall attitude towards the target and an overall favourability rating towards target on a 7-point Likert type scale). In support of predictions based on horizontal hostility,

ethical vegetarians viewed health vegetarians relatively less favourably than ethical vegans, and in the high majority group salience condition, participants rated the more mainstream outgroups more negatively than in the low majority group salience condition. However, contrary to predictions from horizontal hostility, ethical vegans rated ethical vegetarians more favourably than health vegetarians, even though this position was predicted to elicit horizontal hostility. The authors explain that vegetarians and vegans differ on both ethical and health considerations, characteristics that are potentially more nuanced than groups investigated with previous research.

Takakuwa (2010) investigated horizontal hostility with 43 Japanese university students, separated into three groups based on beliefs (assessed by having participants select their own opinion from a list of four opinions) about integration of mandatory English classes in Japanese elementary schools. Group 1 believed that English education in Japanese elementary schools was not necessary (most distinct), group 2 believed that students should have more chances to be exposed to English, and group 3 believed that English education should be mandatory in Japanese elementary schools (most mainstream). The dependent variable was ratings on the affinity, reliability, and intelligence of group members, along with a single item assessing how participants felt towards the other groups. The author found support for horizontal hostility, in that the most distinctive group (who believed that English education was not necessary) rated the moderate group (who believed that children need more opportunities to be exposed to English) *less* favourably than the mainstream group (who believed that English should be taught in the Japanese classroom). However, there are limitations associated with this study. Specifically, 235 participants were eliminated from the analysis because they did not pass two manipulation checks, indicating that the instructions may not have been clear.

Some other studies provide peripheral evidence supporting horizontal hostility. Matser et al. (2010) found patterns of intergroup attitudes that highlight the existence of horizontal hostility. Participants were 109 German individuals, 99 French individuals, 92 German-speaking Swiss individuals, and 140 French-speaking Swiss individuals enrolled in social science courses in three universities, one each in France, Germany, and Switzerland. Each participant completed a survey assessing their rating of the ingroup and outgroups on degree of likeability, arrogance, dominance, and similarity. If a horizontal hostility framework were applied, the spectrum would be the French-speaking Swiss (most distinctive), the German-speaking Swiss (less mainstream), and the French and German tying for mainstream. The results indicated that the French-speaking

Swiss perceived the German-speaking Swiss to be less likable and more dominant, than the German-speaking Swiss perceived them. Similar results were found between the French-speaking Swiss and individuals from France, and the German-speaking Swiss and Germans. While this study did not explicitly investigate horizontal hostility, the authors cite it as support for the phenomenon, as the minority groups disliked the more mainstream groups.

Using the above research, we can distill horizontal hostility into three main criteria:

1. Horizontal hostility is unidirectional. It is expressed from a more distinct (i.e., less mainstream) group towards a more mainstream group.
2. Horizontal hostility is not predicted solely by similarity of participant and target. Relative distinctiveness (i.e., the distinctive differences between the ingroup and the target of horizontal hostility) is necessary to elicit horizontal hostility, not merely similarity between the ingroup and the target of horizontal hostility.
3. The expression of horizontal hostility is increased when a superordinate, majority group identity is made salient.

Horizontal Hostility could be used to understand hostility that may be directed at WPIPs by other Indigenous individuals. WPIPs, who may be thought of as more mainstream due to their ability to ‘pass’ as White, may be targets of horizontal hostility because they threaten the distinctiveness or uniqueness of the Indigenous ingroup. Ultimately, given a growing body of literature in support of horizontal hostility, and the clear application to WPIP’s experiences, a horizontal hostility framework was utilized in the current study. However, there are other ways to understand attitudes towards and perceptions of WPIPs, which are presented next.

1.4 Evaluative Extremity

Evaluative extremity occurs when perceivers rate certain targets more extremely, whether positively or negatively, when compared to other targets. There are many theories that attempt to explain how evaluators rate targets, and many factors that shape evaluations. For example, Expectancy Violation Theory (EVT) suggests that evaluations are a result of the interaction between stereotypes about the target’s social group and person-based information about the target. Specifically, if targets violate expectations about their social group by being or acting better than expected, they will be rated more positively than if they conformed to expectations. Similarly, if targets violate expectations about their social group by being or acting worse than expected, they will be rated more negatively than if they conformed to expectations (see

Bettencourt, Dill, Greathouse, Charlton, & Mulholland, 1997; Jussim, Coleman, & Lerch, 1987, for examples).

Bettencourt et al. (2016) performed a large meta-analysis to assess the impact of group- and person-based information on the evaluation of targets. The authors assessed support for predictions derived from EVT in 109 studies including 429 effect sizes. Hierarchical linear modelling using three-level models with full maximum likelihood was used as the method of meta-analysis. To assess EVT, the authors predicted that targets who violated stereotyped expectations for their social group would be rated more extremely than members from the comparison group, in the direction of the valence of the violation. For example, an Indigenous person who positively violated stereotypes for their social group, say by practicing sobriety, would be rated more positively than a White person doing the same thing. This is because the Indigenous target would violate the stereotype in a positive manner; the same could not be said for White individuals, as they are not necessarily stereotyped as alcoholics. While EVT does not posit any predictions regarding neutral target-based information, the researchers predicted that, when neutral target-based information was presented, evaluators would rate those who violate expectations about the social group less favourably than those who conformed. For example, if an Indigenous target was presented neutrally, but violated expectations by not “appearing” Indigenous (e.g., having a lighter skin tone, blond hair, and blue eyes), they would be rated more negatively than an Indigenous person who looks like a “stereotypical” Indigenous person (e.g., darker skin tone, darker hair, darker eyes, and so forth).

To assess these predictions, Bettencourt et al. (2016) calculated an effect size for low vs. high status targets, while holding target-based information constant (e.g., information about both targets was the same except the status). Effectively, the researchers were comparing the effect of low status targets violating expectations and high status targets violating expectations. The valence of the target and stereotype congruency (or lack of it) were used as moderators. High and low status was determined individually in each study included in the meta-analysis, but reflects social constructions of high and low status individuals; for example, individuals with low socioeconomic status were viewed as low status compared to those with high socioeconomic status, and those speaking with a nonstandard dialect (e.g., using “slang”) were considered lower status than those speaking with a standard dialect (Jussim et al., 1987). The valence of the target

was typically positive or negative. Lastly, congruency was how much the target conformed to stereotypes about their social group.

Results indicated that valence and congruency with stereotypes significantly impacted evaluative outcomes. The authors found that if a low status target positively violated the stereotypes about their social group (i.e., violated stereotypes by doing something more positive than expected), they were rated more positively than high status targets. Furthermore, when information presented was negative, high and low status targets were rated similarly. Ultimately, the authors concluded that several types of information are relevant for evaluations (e.g., target-based information, group-based information, valence of information, violation of norms information, status of the ingroup and outgroup, and stereotypes). They offer three general assumptions based on their findings: 1) group-based information impacts evaluations most when target-based information is positively valenced; 2) negatively valenced target-based information greatly reduces the impact of group-based information; and 3) unsurprisingly, evaluators like targets who conform to stereotypes or norms more than those who violate stereotypes or norms. Expectancy Violation Theory offers another way to understand attitudes towards and perceptions of WPIPs, and as such, this research informed hypotheses for the current study.

1.5 The Current Study

1.5.1 Purpose. The primary purpose of the current investigation is to document and better understand perceptions of White-presenting Indigenous peoples (WPIPs) in Canada.

1.5.2 Incremental advances. This research is novel in several ways and yields multiple incremental advances. First, as indicated by Sanchez and Bonam (2009) in their study of perceptions towards mixed race scholarship applicants, biraciality challenges the way people think about race. This means that the perceiver's understanding of biracial people becomes important in understanding biracial peoples' experiences. Thus, understanding perceptions of multiracial peoples should help researchers to understand their experiences. This is especially pertinent given the growing population of biracial Indigenous individuals (Lawrence, 2004).

Second, most Canadian research on Indigenous peoples has hastily lumped First Nations, Métis, and Inuit peoples together. This research investigates a unique Indigenous group, and thus challenges the perception that Indigenous peoples in Canada are 'all the same' and have the same experience. Specifically, as highlighted by Lawrence (2004), lighter-skinned Indigenous peoples have very different experiences than their darker-skinned counterparts; thus, this research

elucidates the experiences of this unique and growing group of Indigenous peoples. It also sheds light on intragroup relations between DSIPs in Saskatchewan and WPIPs.

Third, though many anecdotal or literary accounts exist (e.g., Deerchild, 2016), there are no known pieces of empirical literature directly on *White-presenting* Indigenous peoples (as Lawrence interviewed ‘lighter-skinned’ Indigenous peoples). Thus, this study is the first experimental research on perceptions towards WPIPs.

Fourth, this research adds to the increasing body of literature on horizontal hostility. While there are over 100 articles citing horizontal hostility, to this author’s knowledge, only four published articles directly and empirically investigate the phenomenon (White & Langer, 1999; White et al. 2006; Takakuwa, 2010; and Rothergerber, 2014). Furthermore, none of these studies investigate subgroups within a race.⁵ The current research investigates the utility of the horizontal hostility phenomenon as it applies to mainstream and distinct Indigenous groups.

Fifth, various theories have been developed to try to elucidate the reasons underlying the evaluative tendencies of individuals. However, to this researcher’s knowledge, frameworks to explain evaluative tendencies have not been applied to incongruent physical appearances (i.e., when one does not appear the way an observer imagines they should appear). For example, one can imagine the surprise experienced when encountering a White, blonde-haired, blue-eyed individual who identifies as Indigenous. Thus, this research adds to the literature on evaluative tendencies, by investigating the applicability of current principles to physical appearance, a particularly salient cue upon which people base first impressions and stereotypes (Willis & Todorov, 2006). This research also extends the evaluative extremity literature to Indigenous peoples in Canada, as most research on this topic utilizes self-identified Black and White American targets and participants (Bettencourt et al., 2016).

The current research investigates White and Indigenous participants’ perceptions of a WPIP candidate, in relation to a White candidate and a DSIP candidate. Specifically, the extent to which the WPIP candidate, in comparison to the White and DSIP candidates, was deemed worthy of admission into a medical program. Finally, this study also documents participants’ ratings of WPIPs, Whites, and DSIPs on a series of positive and negative social traits.

⁵ While there is some contention around exactly how to classify Jewish people (e.g., ethnic, ethno-religious, religious, etc.), there seems to be evidence that Jewish people are not a race (e.g., Falk, 2014).

1.5.3 Hypotheses.

1. Research on horizontal hostility is mixed, with some results supporting the phenomenon and others indicating the context of group membership is too nuanced for horizontal hostility to fully explain intra-group attitudes. Thus, two competing hypotheses are presented, both based on the literature.

a. Horizontal hostility predicts that DSIP participants should rate the WPIP candidate as less worthy of program admission, lower on positive social traits, and higher on negative social traits than the White and DSIP candidates, as WPIPs reduce the distinctiveness of the Indigenous social group (see figure 1.2). In accordance with an horizontal hostility framework, no predictions for the most mainstream group (i.e., self-identifying White participants) are made.

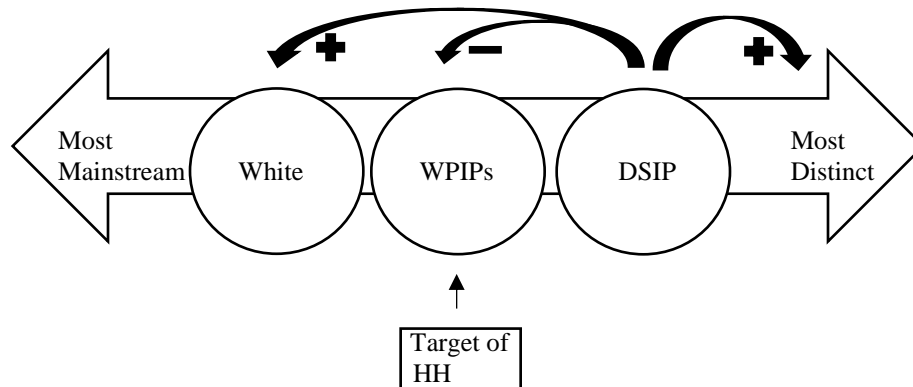


Figure 1.2. Horizontal hostility in the current study. WPIPs: White-presenting Indigenous Peoples. DSIP: Darker-skinned Indigenous Peoples. HH: horizontal hostility. The hypothesized direction of horizontal hostility in the current study. The plus signs and negative signs indicate the positive and negative attitude from the ingroup to the other groups, whereby DSIP participants would rate the WPIP candidate *worse* than the White candidate.

b. However, horizontal hostility may be overridden by Indigenous people's negative attitudes towards non-Indigenous peoples, due to prejudice towards Indigenous peoples in Saskatchewan (Morrison, Morrison, & Borsa, 2014). Furthermore, given the increasing number of lighter-skinned Indigenous peoples (Lawrence, 2004), Indigenous participants may know a WPIP and not harbour any resentment because of that relationship. Moreover, participants who are Indigenous may favour the Indigenous

candidate due to ingroup favouritism (i.e., outgroup discrimination [Tajfel, 1974]). Thus, Indigenous participants may rate WPIP and DSIP targets as more deserving of admission and rate them higher on positive social traits and lower on negative social traits than White targets.

2. We predict that the WPIP and DSIP candidates will be rated more positively than the White candidate by self-identified White participants, based on EVT. This is because Indigenous candidates in this study will positively violate several stereotypes of Indigenous peoples (e.g., laziness) that are antithetical to educational success.
3. Given that stereotypes are more strongly applied to individuals who are racially stereotypical, it was expected that the DSIP candidate will be rated as more admissible than the WPIP candidate by self-identified White participants.

Chapter 2: Method

2.1 Participants

Four hundred and twenty-nine individuals participated in this research. Potential participants were contacted via the undergraduate participant pool at the University of Saskatchewan, through the University of Saskatchewan PAWS webpage (a student information platform), and through the researcher's personal network. Individuals who participated through the undergraduate participant pool received 1% credit towards their course mark. Individuals who participated through other means were entered into a draw to win one of six \$50.00 prizes. Twelve participants were eliminated from analysis as they indicated a desire to remove their data upon reading the debriefing form. Participants were overwhelmingly White (238) and Indigenous (121), with 58 identifying as another ethnicity. Participants who did not identify as Indigenous or White were removed, as they did not constitute a large enough number to perform proper analyses. Given the large discrepancy between Indigenous and White participants, and the potential impact on subsequent analyses (Aron, Coups, & Aron, 2013), 121 White participants were randomly selected and used for all further analysis. This resulted in a final sample of 242 participants (70% female). The average age for participants was 30 ($SD = 10.6$), and the median age was 25. About half of the participants were University of Saskatchewan students (48%), and most belonged to the college of Arts and Science (31%). Five participants were faculty or staff at the University of Saskatchewan. Of the 52% of participants who were not students or staff, 80% did not reside in Saskatchewan.

2.2 Measures

2.2.1 Demographics. Due to the need to provide different measures for participants based on ethnicity, demographic questions were presented first. After providing free, ongoing, and voluntary consent, participants reported their ethnicity, their sex, their year of birth, their college, and indicated if they resided in Saskatchewan (please see Appendix A).

2.2.2 Outgroup saliency. Indigenous participants then completed an activity designed to make identity within a superordinate majority group salient. Exercises such as this increase the desire to identify with a more distinctive group, and previous research has shown that increasing outgroup saliency in this way increases the occurrence of horizontal hostility (White et al., 2006;

Rothgerber, 2014). White participants did not complete this exercise, as the impacts of such an exercise on evaluative extremity are unknown. Indigenous participants were presented with instructions and questions modified from White et al. (2006) such as “what do most Canadians think of doctors?” with the following response options: helpful, busy, friendly, intelligent, or other (please see Appendix B). This was intended to prime the larger, super-ordinate group of “Canadians” and thus increase the expression of horizontal hostility in Indigenous participants.

2.2.3 Candidate package. Participants all viewed the same evaluative instructions, but were randomly assigned to view information about one of three candidates applying to medical school: a WPIP, a DSIP, or a White candidate (please see Appendix C). Each candidate package included the completed application form, a photograph of the candidate, and a personal statement written by the candidate. Written material and a photograph were used to create a moderately immersive vignette (as increased immersion can be achieved by using multi-media methods, Aguinis & Bradley, 2014). Experimental vignette studies are useful to assess causal relationships about potentially sensitive topics and for experimentally manipulating unethical contexts; they can also increase the external validity of an experiment while maintaining internal validity, because they control the ‘noise’ present in the scenario, and simultaneously increase generalizability (Aguinis & Bradley, 2014). All three applications were the same, with a few exceptions related to ethnicity: the last name of the DSIP and WPIP candidates was “Âsinawâsis,” while the last name of the White candidate was “Henderson;” and the ethnicity was “Aboriginal” or “White,” respectively. The WPIP application contained a photograph of a young White man, the DSIP application contained a photograph of a young Indigenous man, and the White application contained the same photograph as the WPIP application. These photographs were obtained via Google images, and were rated similarly in terms of attractiveness, weight, and age by eight graduate students. The two photographs were very similar – both depicted a young man looking directly into the camera, outdoors, with a buzz-cut hair style, and a half-smile. The White candidate’s personal statement was identical to the Indigenous candidates’ personal statements, with the exception of a sentence which indicated the candidate’s origin. All three candidates were from Winnipeg – this was done to reduce the chance of Indigenous participants having some type of ingroup bias (if a common Treaty 6 last name were chosen, Indigenous participants could know the family name of the applicants). For the Indigenous candidates, Wasagamack First Nation was chosen because it is remote with only

airplane access, and has a small population of 1,826 (INAC, 2013); thus, it was unlikely any Indigenous participants would be from that community (an important consideration to limit potential ingroup bias). Thus, two application forms (differing by last name), two photos (differing by ethnic appearance), and two personal statements (differing by community affiliation) were combined to create three unique application packages. Participants were told to take their time reviewing the application, and were unable to click the “next” button until two minutes had elapsed.

2.2.4 Manipulation check questions. Immediately after reviewing candidate applications, participants answered two manipulation check questions (“What sex was the candidate in the application you just reviewed?” and “What was the ethnicity of the candidate in the application you just reviewed?”). The survey was designed such that participants repeated these questions until they answered them correctly, with the same two minute time limit.

2.2.5 Candidate admission. Participants read a statement to remind them of the intent of the study (to investigate first impressions), and to trust their initial feelings and report those. All of the following questions about the candidate were preceded by some variation of this statement. Participants completed a single-item Likert type question to evaluate the target. “Based on your assessment of Taylor's application, please rate how much you agree or disagree with the following statement: Taylor should be admitted into the medical program.” The response format ranged from 1 (*strongly disagree*) to 7 (*strongly agree*) (please see Appendix D). While some concerns exist around single-item measures (Schweinle & Jordre, 2014), there is an increasing body of literature validating their use (e.g., Bergkvist, 2015; Cheung & Lucas, 2014; Gogol et al., 2014). Furthermore, single-item measures of attitudes towards targets are common in evaluative literature (e.g., White et al., 2006).

2.2.6 Feeling thermometer. Participants then completed a feeling thermometer to assess overall feelings towards the target. This measure was originally designed to assess participant attitudes towards political candidates (The Survey Research Center, 1964). It is used quite extensively in the literature, with some research indicating that a greater amount of response options results in greater reliability (Alwin, 1997). The tool asks participants to rate how warm or cold they feel about a target, with scores ranging from 0-100 (Alwin, 1997). The feeling thermometer has been used in studies about Indigenous populations in Canada (Harell et al., 2014), with a higher thermometer score being associated with more endorsement of welfare

supports for Indigenous targets. Instructions were adapted from Norton and Herek (2013, p. 743, please see Appendix E).

2.2.7 Trait ratings. To further assess evaluations of the targets, participants rated candidates on a series of positive and negative social traits (please see Appendix F). This method has been used several times in the literature to assess horizontal hostility (White & Langer, 1999; White et al., 2006; Rothgerber, 2014; Matser et al., 2010). The social traits used in this study were honest, kind, lazy, intelligent, entitled, and regular alcohol user. “Honest” and “kind” are from White and Langer (1999). “Lazy”, “intelligent”, and “regular alcohol user” have been adapted from a list of common stereotypes applied to Indigenous peoples provided by Morrison, Morrison, Harriman, and Jewell (2008). “Entitled” was chosen based on results from the Canadian Public Opinions on Aboriginal Peoples Study, which indicated that 37% of surveyed Saskatchewan residents agreed that Indigenous people had “a sense of entitlement” (Neuman, 2016, p. 23). The terms were couched in phrases to make them less threatening (Dillman, Smyth, & Christian, 2014). For example, the question on alcohol use reads “Many students drink alcohol during their undergraduate degree. How often do you think Taylor drinks alcohol?” Most social trait statements used a 7-point response format, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). This is with the exception of the alcohol question, which used the following response format: 1 (*daily*), 2 (*weekly*), 3 (*once every two weeks*), 4 (*monthly*), 5 (*once every six months*), 6 (*once a year*), and 7 (*never*). Participants also answered the question “How positive or negative is your attitude towards Taylor?” The response format ranged from 1 (*extremely negative*) to 7 (*extremely positive*).¹ Lastly, participants were asked “Should Taylor be accepted into medical school?” with a yes/no response format, and an open-ended question following: “Why [shouldn’t/should] Taylor be accepted into medical school? Please think about the characteristics that make him a [poor/good] candidate. This is a very important question, so please answer honestly.”

¹ The current research used a seven point scale instead of a nine point scale (as was used in White et al., 2006), as labelling every point increases reliability and validity of responses, and it is difficult to meaningfully label nine points (Krosnick & Fabrigar, 1997). Furthermore, as attitudes are typically bipolar constructs (Krosnick & Fabrigar, 1997), it is more logical for them to be measured with bipolar scales; thus the scale range was changed from “not at all positive-extremely positive” to “extremely negative-extremely positive”. This also makes it feasible to label all seven points on the scale.

2.2.8 Scholarship questions. Participants were asked a series of questions about Taylor’s deservingness of scholarships. Questions for the DSIP and WPIP conditions included an “ethnic minority” scholarship, whereas questions for the White condition included an “exceptional student” scholarship. These questions were modified from Sanchez and Bonam (2009; please see Appendix G).

2.2.9 Social Desirability Scale (Stöber, 2001). All participants completed the Social Desirability Scale-17 (SDS-17), a 16-item measure with a dichotomous yes/no response format, to assess participants’ propensity to respond with social desirability bias (Stöber, 2001, please see Appendix H). Social desirability bias is the tendency for participants to reveal socially desirable traits, like helping your neighbour, but conceal socially undesirable traits, like littering (Krumpal, 2013). Sample items are “I sometimes litter” and “I would never live off other people.” Scores ranged from 0-16, with higher scores indicating greater social desirability in that individual. This measure possesses good convergent and discriminant validity, as well as a previously recorded scale score reliability (alpha of .72; Stöber, 2001).

2.2.10 Modern Prejudiced Attitudes Toward Aboriginals Scale (Morrison et al., 2008). Modern prejudice is subtle and indirect, and is characterized by several assumptions: that Aboriginal people emphasize their cultural identity too much; Aboriginal people use their cultural identity to try to change the status quo for no reason; Aboriginal people use their status to get “special” privileges; and because Aboriginal people get these special privileges, there is no longer discrimination towards them (Morrison et al., 2008). In this study, modern prejudice was measured using the Modern Prejudiced Attitudes Toward Aboriginals Scale (M-PATAS; Appendix I). A sample item from this scale is “Aboriginal people should stop complaining about the way they are treated and simply get on with their lives” (Morrison et al., 2008, p. 24). There are 14 items with response options ranging from 1 (*strongly disagree*) to 7 (*strongly agree*), meaning scores could range from 14 to 98. Higher scores indicate more prejudice towards Indigenous peoples. Assessments have indicated that this measure possesses very good scale score reliability (alphas between .92 and .93), and good construct validity, in the forms of divergent, known-groups, and convergent validity (Morrison et al., 2008; Nesdole, Lepnurm, Noonan, & Voigts, 2015). Given that this scale was not designed for use with Indigenous individuals; was not designed to assess Indigenous persons’ internalized racism; and might have made Indigenous participants uncomfortable, only White participants completed this scale.

2.2.11 Indigenous appearance. Indigenous participants answered a series of questions to ascertain if they were a White-presenting Indigenous person (please see Appendix J). Participants agreed or disagreed with the statement “I am confident that I appear Indigenous to other people,” on the same 7-point scale described previously. If they selected 6 or lower on this scale, they were directed to a second question: “Do you ever attend events that focus on Indigenous culture and/or community? E.g., powwows, Indigenous forums, round dances, etc.” with a yes/no format. If they selected yes, they were presented with “At these events, did you ever think others assumed you were White, due to your appearance?,” again with a yes/no response format. If they selected yes, they were directed to the question “At these events, how often did you think others assumed you were a White person?” with the response format being 1 (*never*) to 5 (*all the time*). If participants selected options 2-5, they were asked “At times when you have discussed ethnicity with other people, have people ever expressed disbelief in your Indigenous identity, based on how you look? For example, said “you don't look Indigenous!,”” with a yes/no/unsure response format. Lastly, if they selected yes, participants answered the question “When you are discussing your ethnicity with other people, how often have people expressed disbelief in your Indigenous identity based on how you look?,” with the same 5-point response format as above. A selection of “no” at any point resulted in the discontinuation of train of questioning.

2.2.12 Funnel questions. A series of questions based on Page (1973) were designed to assess participants’ knowledge of the purpose of this study (please see Appendix K). All participants were asked questions 1-4, White participants in the DSIP condition were asked question 5, and participants in the WPIP condition were asked questions 6-7. This resulted in participants being asked between 4 and 7 funnel questions depending on the condition to which they were randomly assigned.

2.3 Procedure

All individuals participated in the study online, taking on average 19 minutes. After providing free and informed consent (please see Appendix L), all participants supplied demographic information. Indigenous participants then completed the outgroup saliency exercise. All participants were randomly assigned to view either the WPIP, DSIP, or White candidate’s application. After reviewing the candidate’s application, participants completed the two manipulation check questions, rated the admissibility of the candidate, completed a feeling

thermometer rating based on that candidate, provided ratings of the candidate on a series of positive and negative social traits, indicated why they thought Taylor should or should not be admitted into the medical program, and indicated scholarship deservingness for that candidate. All participants completed the SDS-17, Indigenous participants completed questions about their physical appearance, and White participants completed the M-PATAS. Lastly, all participants completed a series of funnel questions. Finally, participants were thanked, debriefed, and given course credit or entered into a random draw where applicable (please see Appendix M). Since deception was used in the study, participants were given the opportunity to remove their data after reading the debriefing form and before submission. Appendix N provides a procedural flowchart for the study.

Chapter 3: Results

3.1 Data Preparation

Prior to analysis, the data were cleaned and statistical assumptions were assessed (please see Appendix O). Analyses were done with and without outliers, and with and without those who indicated awareness of the hypotheses in the final funnel question. All analyses presented include all participants, except in the case of correlation and regression analyses (please see Appendix O). If values differed in significance when outliers or participants aware of the hypothesis were removed (i.e., went from significant with them included to non-significant when they were removed), both values are presented (e.g., if a value was statistically significant when outliers were included, but non-significant when outliers were excluded, the value with outliers included is in the body of the text and the value with outliers excluded is in a footnote). As well, before beginning analysis, composite scores were created for the trait questions and the scholarship questions. This was done for several reasons: they were highly correlated and loaded onto one factor in an EFA (please see Appendix P), produced high alphas ($\alpha = .79$, 95% CI: .75-.83; and $\alpha = .88$, 95% CI: .85-.90, respectively), and would reduce the risk of type 1 errors as composite scores reduce the number of individual comparisons needed. Entitlement and Laziness were reverse coded for the purposes of the composite score. Alcohol was not included in the composite score, as it produced the weakest correlations, lowered the alpha, and did not load well onto the EFA (this is logical because alcohol use is a behaviour, not a trait).

3.2 Descriptive Analyses and Intercorrelations

Overall, scores on the M-PATAS were below the midpoint ($M = 45.43$, $SD = 18.50$), meaning that, on average, participants disagreed with stereotypes presented in the M-PATAS. Twenty-eight percent of participants scored above the midpoint on the M-PATAS. Social desirability scores, assessed using the SDS-17, were slightly below the midpoint of the scale ($M = 7.62$, $SD = 3.12$), suggesting participants did not respond in a socially desirable way. In this instance, 38% of participants scored above the SDS-17 midpoint. On average, the candidates were rated above the midpoint on trait ratings, scholarship deservingness, decision to admit (1-7 scale), the feeling thermometer, general attitude toward the candidate, and received ratings below the midpoint on perceptions of the candidate's alcohol use. In 91% of cases, participants

indicated Taylor should be admitted to medical school on the yes/no admission question. See Tables 1-4 for full variable descriptives and participant demographics.

Several significant correlations of moderate magnitude were found (Tables 5-7). The decision to admit the candidate, both when answered on a 1-7 scale and a yes/no format, were significantly correlated in the expected direction with all variables except the M-PATAS and SDS-17. Participants who rated the candidate more warmly, less of a regular alcohol user, had a more positive attitude towards the candidate, and rated the candidate more positively on the trait and scholarship composites, also rated the candidate as more deserving of admission. The consistent and expected directionality of these correlations indicate that, when individuals rated the candidate more positively on a series of traits, they were likely to recommend him for admittance into the medical program and hold a more positive attitude towards him.

However, admission was not significantly correlated with the M-PATAS or SDS-17, indicating that the likelihood of admitting the candidate was unlikely to have been impacted by prejudiced attitudes towards Indigenous peoples (as measured by the M-PATAS) or social desirability bias (as measured by the SDS-17). There were significant correlations between the M-PATAS and the scholarship composite for White participants in condition 1, the WPIP condition, $r(29) = -0.44, p = 0.018$, and in condition 2, the DSIP condition, $r(47) = -0.46, p = 0.001$, indicating that the more highly White participants scored on the M-PATAS, the less willing they were to give Indigenous candidates a scholarship. There was no significant correlation between the M-PATAS scores and the scholarship composite ratings for White participants in condition 3, the White candidate condition, $r(27) = 0.26, p = 0.186$, indicating that prejudiced attitudes, as measured by the M-PATAS, were not associated with awarding the White candidate a scholarship. There was a significant correlation between the M-PATAS and the feeling thermometer for White participants in condition 3, the White candidate condition, $r(26) = 0.46, p = 0.018$, meaning that when White participants felt more warmly towards the White candidate, they had higher M-PATAS scores. In condition 3, the White candidate condition, Indigenous participants scoring higher on the SDS-17 also perceived the White candidate as likely to drink more, $r(37) = 0.38, p = 0.016$, and rated the White candidate as less worthy of scholarships, $r(37) = -0.44, p = 0.005$. Lastly, White participants in condition 3, the White candidate condition, who scored higher on the SDS-17 possessed a more negative attitude

towards Taylor, $r(27) = -.67, p < 0.001$, rated him lower on the traits in question, $r(27) = -.66, p < 0.001$, and determined he was less worthy of scholarships, $r(27) = -.45, p < 0.016$.

Only one sex difference was found; that is, male participants ($M = 52.87, SD = 15.79$) scored higher on the M-PATAS than female participants ($M = 42.66; SD = 18.44$), $t(116) = -2.94, p = 0.004$,¹ Cohen's $d = -0.58$. Individuals who entered a sex different than male or female were not included in this analysis, as they were too small in number to be able to perform any statistical analyses with their data.

Some differences were found depending on the platform through which participants accessed the survey. Fewer participants accessed the survey via the psychology participant pool ($n = 68$) than through other means ($n = 174$). How participants in the latter group accessed the survey was not tracked. Those who accessed the survey via the psychology participant pool scored significantly higher on the M-PATAS ($M = 52.45; SD = 17.92$) than those who accessed the survey via other means ($M = 39.48; SD = 16.94$), $t(118) = 4.07, p < 0.001$, Cohen's $d = .75$, meaning those participants who completed the survey through the University of Saskatchewan Psychology pool held more prejudicial beliefs towards Indigenous peoples, as measured by the M-PATAS, than those coming from outside the University of Saskatchewan. There were also significant differences for admission, $t(218.93) = 3.10, p = 0.002$,² Cohen's $d = 0.35$, whereby those accessing the survey through the participant pool ($M = 6.26; SD = 0.70$) were more likely to admit the candidate compared to those accessing the survey outside the pool, ($M = 5.85; SD = 0.10$).³ There was also a significant impact of type of access on the yes/no admission question, $\chi^2(1) = 6.20, p = 0.013$, Cramer's $V = 0.16$, meaning those who accessed the survey via the participant pool were more likely to admit the candidate.

3.3 Hypothesis Testing

The first hypothesis has two parts. Hypothesis 1a, based on horizontal hostility, predicted that darker-skinned Indigenous participants (how a continuum of skin tone was created is

¹ When outliers were removed, this value became non-significant $t(99) = -1.93, p = 0.06$, Cohen's $d = -0.41$.

² When outliers were removed, this value became non-significant $t(215) = 1.71, p = 0.09$, Cohen's $d = 0.25$.

³ With a Bonferroni correction ($\alpha = \alpha/\text{number of comparisons}$, $\alpha = 0.05/2 = 0.025$), this comparison is still significant.

outlined below) should rate the WPIP candidate as less worthy of program admission, lower on positive social traits, and higher on negative social traits than the White and DSIP candidates, as WPIPs reduce the distinctiveness of the Indigenous social group (see figure 3.1). In accordance with an horizontal hostility framework, no predictions for the most mainstream group (i.e., self-identifying White participants) were made.

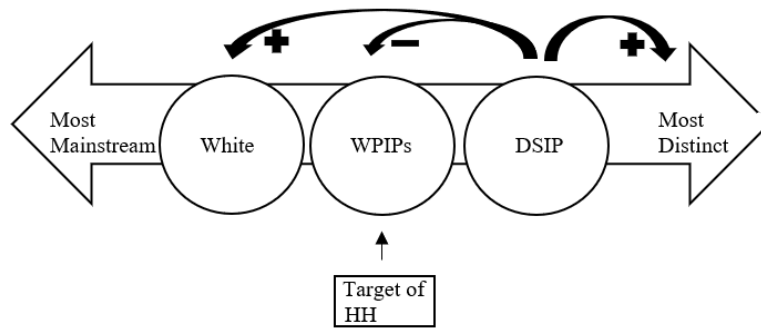


Figure 3.1. Horizontal hostility in the current study. WPIPs: White-presenting Indigenous Peoples. DSIP: Darker-skinned Indigenous Peoples. HH: horizontal hostility. The hypothesized direction of horizontal hostility in the current study. The plus and negative signs indicate the positive and negative attitude from the ingroup to the other groups.

To assess Hypothesis 1a, a summed score of the series of questions asked to assess the White-presentingness of Indigenous participants was created. To create this sum, answers to the first appearance question were reverse coded, and then summed with the questions regarding how often participants were mistaken for White people and how often Indigenous people expressed disbelief at the participant’s Indigenous identity. This resulted in a summed score for which higher values indicated a greater level of White-presentingness⁴ (the possible and actual range was 1 to 17, $M = 8.10$, $SD = 5.42$). Multiple regression analyses were conducted to determine the variables that significantly predicted participants’ ratings of candidates: admission to medical school, feeling thermometer scores, alcohol use, attitude towards the candidate, the trait composite, and the scholarship composite. For each separate multiple regression, three variables were entered as predictors: condition (White condition coded as “1”, WPIP condition

⁴ 10 of the 121 Indigenous participants did not fully complete the logic of these questions, and as such, were removed before this analysis and subsequent planned comparisons were completed, as their sums were artificially low.

coded as “2”, and DSIP condition coded as “3”), White-presentingness, and their interaction. More details are provided in table 8.

For the multiple regression predicting medical school admission, the overall model was statistically significant, $F(3, 99) = 10.12, p < 0.001$, adjusted $R^2 = .21$. Inspection of the standardized beta weights revealed that only condition was a significant predictor, $\beta = 0.48, t = 5.48, p < 0.001$. To better understand the nature of the relationship between condition and admission to medical school, a one-way ANOVA was conducted, followed by post-hoc testing. Results indicated that the univariate F for condition was statistically significant, $F(2, 63.31) = 13.47, p < 0.001$. Specifically, Tukey’s HSD post-hoc testing indicated that the DSIP candidate ($M = 6.58, SD = 0.76$) and the WPIP candidate ($M = 6.40, SD = 0.77$) were significantly more likely to be admitted than the White candidate ($M = 5.31, SD = 1.25$). There was no significant difference between admission ratings of the DSIP and WPIP candidates.

For the multiple regression predicting feeling thermometer scores, the overall model was statistically significant, $F(3, 96) = 12.43, p < 0.001$, adjusted $R^2 = .26$. Inspection of the standardized beta weights revealed that only condition was a significant predictor, $\beta = .51, t = 5.93, p < 0.001$. To better understand the nature of the relationship between condition and feeling thermometer scores, a one-way ANOVA was conducted, followed by post-hoc testing. Results indicated that the univariate F for condition was statistically significant, $F(2, 59.88) = 15.37, p < 0.001$. Tukey’s HSD post-hoc testing indicated that the DSIP candidate ($M = 90.55, SD = 11.04$) and the WPIP candidate ($M = 82.52, SD = 12.03$) were rated significantly more warmly on the feeling thermometer than the White candidate ($M = 70.79, SD = 18.12$). There was no significant difference in feeling thermometer ratings between the DSIP and WPIP candidates.

For the multiple regression predicting candidate alcohol use, the model including condition and White-presentingness was statistically significant, $F(2, 101) = 3.97, p = 0.02$, adjusted $R^2 = .06$. Inspection of the standardized beta weights revealed that White-presentingness was the only significant predictor, $\beta = .20, t = 2.05, p = 0.043$. Standardized beta weights indicated that participants scoring higher on White-presentingness (i.e., participants who were more White-presenting) also rated candidates as more regular alcohol users.

For the multiple regression predicting attitude towards the candidate, the overall model was statistically significant, $F(3, 100) = 10.91, p < 0.001$, adjusted $R^2 = .22$. Inspection of the standardized beta weights revealed that only condition was a significant predictor, $\beta = .48, t =$

5.55, $p < 0.001$. To better understand the nature of the relationship between condition and attitude towards the candidate, a one-way ANOVA was conducted, followed by post-hoc testing. Results indicated that the univariate F for condition was statistically significant, $F(2, 101) = 16.14$, $p < 0.001$. Tukey's HSD post-hoc testing indicated that participants had a significantly more favourable attitude towards the DSIP candidate ($M = 6.21$, $SD = 0.84$) and the WPIP candidate ($M = 5.84$, $SD = 0.93$) than the White candidate ($M = 5.00$, $SD = 1.00$). There was no significant difference in attitudes towards the DSIP and WPIP candidates.

For the multiple regression predicting ratings of the trait composite, the overall model was statistically significant, $F(3, 100) = 18.98$, $p < 0.001$, adjusted $R^2 = .34$. Inspection of the standardized beta weights revealed that only condition was a significant predictor, $\beta = .59$, $t = 7.29$, $p < 0.001$. To better understand the nature of the relationship between condition and the trait composite, a one-way ANOVA was conducted, followed by post-hoc testing. Results indicated that the univariate F for condition was statistically significant, $F(2, 101) = 27.71$, $p < 0.001$. Tukey's HSD post-hoc testing indicated that the DSIP candidate ($M = 6.19$, $SD = 0.65$) and the WPIP candidate ($M = 5.77$, $SD = 0.71$) were rated significantly more favourably on the trait composite than the White candidate ($M = 4.92$, $SD = 0.85$). There was no significant difference between scores on the trait composite for the DSIP and WPIP candidates.

For the multiple regression predicting scores on the scholarship composite, the overall model was statistically significant, $F(3, 100) = 18.94$, $p < 0.001$, adjusted $R^2 = .34$. Inspection of the standardized beta weights revealed that only condition was a significant predictor, $\beta = .58$, $t = 7.26$, $p < 0.001$. To better understand the nature of the relationship between condition and the scholarship composite, a one-way ANOVA was conducted, followed by post-hoc testing. Results indicated that the univariate F for condition was statistically significant, $F(2, 62.28) = 25.51$, $p < 0.001$. Tukey's HSD post-hoc testing indicated that the DSIP candidate ($M = 5.54$, $SD = 0.92$) and the WPIP candidate ($M = 4.95$, $SD = 1.19$) were rated significantly more favourably on the scholarship composite than the White candidate ($M = 3.44$, $SD = 1.48$). There was no significant difference in scholarship composite scores of the DSIP and WPIP candidates.

Lastly, a logistic regression was completed with condition, White-presentingness, and their interaction as the predictor variables to assess the impact of these variables on the yes/no admission question. The overall model was statistically significant, $F(3, 100) = 3.27$, $p = 0.024$, adjusted $R^2 = 0.06$. Inspection of the standardized beta weights revealed that only condition was

a significant predictor, $\beta = .30$, $t = 3.14$, $p = 0.002$. A Chi-Square was completed on Indigenous participants to understand the impact of condition on the yes/no admission question. This was appropriate given that both variables were categorical with at least two categories each. The Chi-Square was significant: $\chi^2 (2, N = 111) = 15.10$, $p = 0.001^5$, Cramer's $V = 0.37$. Given that 50% of expected frequencies were <5 , Fisher's exact test⁶ was performed, and was also significant ($p < 0.001$, *Fisher's exact test*). Indigenous participants admitted the WPIP candidate 94% of the time, the DSIP candidate 100% of the time, and the White candidate 74% of the time. This means that the condition to which participants were assigned influenced participant answers on the yes/no admission question. Upon calculating residuals, using a value of $|2|$ (Sharpe, 2015), it became apparent that significant differences were in the DSIP and White conditions (residuals of -2.8 and 3.8 , respectively). Specifically, more participants admitted the DSIP candidate than expected by chance, and more participants rejected the White candidate than expected by chance. This means that Indigenous participants were more likely to admit the DSIP candidate than the White candidate. This was also true for the WPIP candidate, but this condition was not significantly different from the other two conditions (residual of -1.0).

For horizontal hostility as defined in Hypothesis 1a to be present, Indigenous participants should rate the WPIP candidate worse than the White candidate *and* worse than the DSIP candidate. These results do not support horizontal hostility as defined in Hypothesis 1a, because, the DSIP and WPIP candidates were not rated significantly differently on any of the dependent variables, and both were rated better than the White candidate.

Hypothesis 1b predicts that horizontal hostility may be overridden by Indigenous people's negative attitudes towards non-Indigenous peoples, due to prejudice towards Indigenous peoples in Saskatchewan (Morrison et al., 2014). Thus, Indigenous participants might rate WPIP and DSIP targets as more deserving of admission and rate them higher on positive social traits and lower on negative social traits than White targets. As well, Hypothesis 2 predicts that the WPIP and DSIP candidates would be rated more positively than the White candidate by self-identified White participants, based on EVT. This is because Indigenous candidates in this study positively violate several negative stereotypes of Indigenous peoples (e.g., laziness) that are

⁵ This is significant at a Bonferroni corrected p-value of 0.025 ($\alpha = \alpha/\text{number of comparisons}$, $\alpha = 0.05/2 = 0.025$)

⁶ A web-based calculator was used: <http://vassarstats.net/fisher2x3.html>

antithetical to educational success. To assess Hypothesis 1b and Hypothesis 2, several 2 (ethnicity: Indigenous vs White) x 3 (condition: WPIP, DSIP, and White) ANOVAs were completed on each dependent variable (i.e., admission, feeling thermometer, alcohol use, attitude, trait composite, and scholarship composite), following the procedure laid out by Howell (2013). For all variables, a main effect of condition was observed: admission, $F(2) = 13.00, p < 0.001$, feeling thermometer, $F(2) = 28.65, p < 0.001$, alcohol use, $F(2) = 7.89, p < 0.001$, attitude, $F(2) = 34.87, p < 0.001$,⁷ traits, $F(2) = 46.32, p < 0.001$, and scholarship deservingness, $F(2) = 55.02, p < 0.001$. This means that participant's condition significantly impacted their ratings of the candidate. For alcohol use, $F(1) = 6.75, p = 0.01$ and scholarship deservingness, $F(1) = 7.67, p = 0.006$, a main effect of ethnicity was observed, meaning ethnicity significantly impacted these ratings. There were significant condition X ethnicity interactions for feeling thermometer ratings, $F(2) = 3.21, p = 0.04$, and trait ratings, $F(2) = 6.18, p = 0.002$. Given that we were interested in how ethnicity impacted ratings of candidates in different conditions, and that we had a-priori hypotheses for each variable, we conducted further analysis to assess simple effects.

Several simple effects were found for condition, whereby Indigenous participants rated candidates differently depending on what condition they were in: admission, $F(2, 117) = 6.79, p = 0.002, \omega^2 = 0.09$,⁸ feeling thermometer,⁹ $F(2, 69.44) = 18.70, p < 0.001, \omega^2 = 0.26$, alcohol use, $F(2, 118) = 5.06, p = 0.008, \omega^2 = 0.063$, attitude towards the candidate, $F(2, 76.83) = 19.36, p < 0.001, \omega^2 = 0.23$, the trait composite, $F(2, 76.84) = 30.38, p < 0.001, \omega^2 = 0.33$, and the scholarship composite, $F(2, 75.76) = 30.92, p < 0.001, \omega^2 = 0.33$. These results indicate that there was a significant impact of ethnicity on condition. To tease apart these findings, planned comparisons were completed.

For Hypothesis 1b, planned comparisons were completed on Indigenous participants' ratings of WPIP and White candidates. Indigenous participants rated the WPIP candidate more positively than the White candidate on all dependent variables. Indigenous participants rated the

⁷ When outliers were removed, this value became non-significant, $F(1) = .32, p = 0.574$.

⁸ ω^2 was calculated as a measure of effect size, as (unlike η^2) it robust to violations of the assumption of equal variance in a 3 group one-way ANOVA (Troncoso Skidmore & Thompson, 2013). ω^2 was calculated using Troncoso Skidmore & Thompson's ω^2 calculator (2013).

⁹ Where there were unequal variances, Welch's F was interpreted, hence the decimal version of the degrees of freedom. In these cases, a modified version of ω^2 was used (Horn, n.d.).

WPIP candidate more worthy of admission ($M = 6.08, SD = 1.44$) than the White candidate ($M = 5.24, SD = 1.28$), $t(76) = 2.74, p = 0.008$,¹⁰ Cohen's $d = 0.62$; rated the WPIP candidate more warmly on the feeling thermometer ($M = 82.63, SD = 12.83$) than the White candidate ($M = 66.35, SD = 24.39$), $t(60.6) = 3.68, p < 0.001$, Cohen's $d = 0.82$; rated the WPIP candidate as less of a regular alcohol user ($M = 3.73, SD = 1.52$) than the White candidate ($M = 4.67, SD = 1.37$), $t(77) = 2.88, p = 0.005$, Cohen's $d = -0.65$; rated the WPIP candidate higher on the composite trait score ($M = 5.76, SD = .67$) than the White candidate ($M = 4.80, SD = .95$), $t(77) = 5.12, p < 0.001$, Cohen's $d = 1.15$; rated the WPIP candidate higher on the composite scholarship score ($M = 4.93, SD = 1.15$) than the White candidate ($M = 3.26, SD = 1.50$), $t(75.64) = 5.57, p < 0.001$, Cohen's $d = 1.24$; and had a more positive attitude towards the WPIP candidate ($M = 5.84, SD = .87$) than the White candidate ($M = 4.81, SD = 1.23$), $t(73.50) = 4.32, p < 0.001$, Cohen's $d = 0.95$.

The same analyses were done to compare Indigenous participants' ratings of the DSIP and White candidate. Indigenous participants were more likely to admit the DSIP candidate ($M = 6.29, SD = 1.40$) than the White candidate ($M = 5.24, SD = 1.28$), $t(82) = 3.57, p = 0.001$, Cohen's $d = 0.78$; rated the DSIP candidate more warmly on the feeling thermometer ($M = 91.07, SD = 10.70$) than the White candidate ($M = 66.35, SD = 24.39$), $t(52.92) = 5.89, p < 0.001$, Cohen's $d = 1.32$; rated the DSIP candidate as less of a regular alcohol user ($M = 3.81, SD = 1.53$) than the White candidate ($M = 4.67, SD = 1.37$), $t(82) = -2.70, p = 0.008$, Cohen's $d = -0.59$; rated the DSIP candidate more positively on the trait composite ($M = 6.18, SD = .63$) than the White candidate ($M = 4.80, SD = .95$), $t(71.59) = 7.83, p < 0.001$, Cohen's $d = 1.71$; rated the DSIP candidate more positively on the scholarship composite ($M = 5.43, SD = .96$) than the White candidate ($M = 3.26, SD = 1.50$), $t(69.99) = 7.88, p < 0.001$, Cohen's $d = 1.72$; and had a more positive attitude towards the DSIP candidate ($M = 6.24, SD = .82$) than the White candidate ($M = 4.81, SD = 1.23$), $t(71.32) = 6.25, p < 0.001$, Cohen's $d = 1.36$. These results support Hypothesis 1b, as Indigenous participants rated both WPIP and DSIP candidates significantly better than the White candidate.

Lastly, as an exploratory analysis, Indigenous participants' ratings of the DSIP and WPIP candidates were compared. The DSIP candidate was rated more warmly on the feeling

¹⁰ When those who answered yes to funnel question number 7 were excluded from the analysis, this figure became non-significant $t(56) = 1.94, p = 0.057$.

thermometer ($M = 91.07$, $SD = 10.70$) than the WPIP candidate ($M = 82.63$, $SD = 12.827$), $t(75) = -3.15$, $p = 0.002$, Cohen's $d = -0.72$ ¹¹, and significantly higher on the trait composite ($M = 6.18$, $SD = 0.63$) than the WPIP candidate ($M = 5.76$, $SD = 0.67$), $t(77) = -2.85$, $p = 0.006$, Cohen's $d = -0.64$ ¹², at a Bonferroni corrected p-value of .008 ($\alpha = \alpha/\text{number of comparisons}$, $\alpha = 0.05/6 = 0.008$).

A Chi-Square analysis was then performed to assess the impact of condition on Indigenous participants' ratings on the yes/no admission question. This was appropriate given that both variables were categorical with at least two categories each. The Chi-Square for Indigenous participants indicated a significant difference among the three conditions on the yes/no admission question, $\chi^2(2, N = 121) = 16.61$, $p < 0.001$, Cramer's $V = 0.37$. Given that 50% of expected frequencies were <5 , Fisher's exact test was performed, and was also significant ($p < 0.001$, *Fisher's exact test*). Indigenous participants admitted the WPIP candidate 95% of the time, the DSIP candidate 100% of the time, and the White candidate 74% of the time. This means that the condition to which participants were assigned influenced participant answers to the yes/no admission question. Upon calculating residuals, using a value of $|2|$ (Sharpe, 2015), it became apparent that significant differences were in condition 2 and 3 (residuals of -2.8 and 4.0, respectively). Specifically, more participants admitted the DSIP candidate than expected by chance, and more participants rejected the White candidate than expected by chance. This means that Indigenous participants were more likely to admit the DSIP candidate than the White candidate. This was also true for the WPIP candidate, but this condition was not significantly different from the other two conditions (residual of -1.3).

Similar analyses were carried out to further assess Hypothesis 2. Simple effects were found for White participants for all dependent variables except alcohol use: admission, $F(2, 60.49) = 6.09$, $p = 0.004$, $\omega^2 = 0.08$; feeling thermometer, $F(2, 58.59) = 10.27$, $p = 0.001$, $\omega^2 = 0.13$; attitude, $F(2, 64.14) = 9.20$, $p < 0.001$, $\omega^2 = 0.12$; trait composite, $F(2, 65.33) = 11.36$, $p < 0.001$, $\omega^2 = 0.15$; and scholarship composite, $F(2, 118) = 20.19$, $p < 0.001$, $\omega^2 = 0.241$. These findings indicate there were differences by condition for White participants. As above, planned

¹¹ When excluding individuals who answered yes to the funnel question 7, this result became non-significant at the new p-level: $t(56) = -2.40$, $p = 0.02$.

¹² When excluding individuals who answered yes to the funnel question 7, this result became non-significant: $t(56) = -1.29$, $p = 0.21$.

comparisons were carried out to compare White participant ratings of the WPIP candidate to the White candidate, and the DSIP candidate to the White candidate. There were significant differences in the expected direction, whereby White participants rated the WPIP candidate as more deserving of admission to medical school ($M = 6.23, SD = 0.97$) than the White candidate ($M = 5.65, SD = 1.06$), $t(70) = 2.42, p = 0.018$, Cohen's $d = 0.57$; rated the WPIP candidate as less of a regular alcohol user ($M = 4.29, SD = 1.12$) than the White candidate ($M = 4.89, SD = 1.13$), $t(69) = 2.25, p = 0.028$, Cohen's $d = -0.53$; rated the WPIP candidate higher on the trait composite ($M = 5.62, SD = 0.66$) than the White candidate ($M = 5.18, SD = 0.73$), $t(70) = 2.68, p = 0.009$, Cohen's $d = 0.63$; rated the WPIP candidate higher on the scholarship composite ($M = 4.46, SD = 1.11$) than the White candidate ($M = 3.20, SD = 1.21$), $t(70) = 4.62, p < 0.001$, Cohen's $d = 1.09$; and had a more positive attitude towards the WPIP candidate ($M = 5.74, SD = 0.70$) than the White candidate ($M = 5.11, SD = 1.17$), $t(59.32) = 2.80, p = 0.007$, Cohen's $d = 0.65$. The same analysis was completed comparing DSIP and White candidates. White participants rated the DSIP candidate more worthy of admission ($M = 6.31, SD = 0.51$) than the White candidate ($M = 5.65, SD = 1.06$), $t(48.90) = 3.51, p = 0.001$, Cohen's $d = 0.83$; rated the DSIP candidate warmer on the feeling thermometer ($M = 84.76, SD = 8.33$) than the White candidate ($M = 72.22, SD = 15.26$), $t(50.23) = 4.46, p < 0.001$, Cohen's $d = 1.07$; rated the DSIP candidate as less of a regular alcohol user ($M = 4.37, SD = 1.24$) than the White candidate ($M = 4.89, SD = 1.13$), $t(84) = -2.02, p = 0.046$,¹³ Cohen's $d = -0.44$; rated the DSIP candidate higher on the trait composite ($M = 5.82, SD = 0.44$) than the White candidate ($M = 5.18, SD = 0.73$), $t(55.27) = 4.76, p < 0.001$, Cohen's $d = 1.11$; rated the DSIP candidate higher on the scholarship composite ($M = 4.69, SD = 1.07$) than the White candidate ($M = 3.20, SD = 1.21$), $t(84) = 6.05, p < 0.001$, Cohen's $d = 1.32$; and lastly, had a more positive attitude towards the DSIP candidate ($M = 5.98, SD = 0.52$) than the White candidate ($M = 5.11, SD = 1.17$), $t(46.70) = 4.22, p < 0.001$, Cohen's $d = 1.01$. These analyses support Hypothesis 2, as Indigenous candidates were rated more favourably than the White candidate by White participants. White participants did not rate the DSIP and WPIP candidate any differently on any of the dependent variables.

¹³ When outliers were removed, this value became non-significant, $t(73) = 1.90, p = 0.061$.

Another Chi-Square analysis was completed to assess whether White participants chose to admit or not admit the candidates, $\chi^2(2) = 9.04^{14}$, $p = 0.011$, Cramer's $V = 0.27$. However, upon inspection, 50% of the cells had expected frequencies <5 ; therefore, Fisher's exact test was employed and was also statistically significant ($p = 0.005$, *Fisher's exact test*). There was a significant impact of condition on decision to admit the candidate: 94% of White participants admitted the WPIP candidate, 100% of White participants admitted the DSIP candidate, and 84% of White participants admitted the White candidate. Inspection of residuals revealed significantly more participants than expected by chance admitted the DSIP candidate (residual of 2.4) and significantly more participants than expected by chance rejected the White candidate (residual of -2.8). Residuals were not significant for the WPIP condition, meaning that admission rates of the WPIP candidate did not differ significantly from chance. This means that White participants were most likely to admit the DSIP candidate, and least likely to admit the White candidate. This finding further supports Hypothesis 2.

Overall, both White and Indigenous participants rate the DSIP candidate and the WPIP candidate more favourably on most dependent variables in comparison with the White candidate. Taken together, the results of this series of analyses do not support Hypothesis 1a – that is, the existence of horizontal hostility as modelled in the current study – there is, however, some support for the definition of horizontal hostility (White et al., 2006). The findings do support Hypothesis 1b – the existence of ingroup bias for Indigenous participants. Furthermore, these results support Hypothesis 2, as White participants rated the Indigenous candidates more favourably than the White candidate.

Hypothesis 3 predicted that, given that stereotypes are more strongly applied to individuals who are racially stereotypical, the DSIP candidate would be rated as more admissible than the WPIP candidate by self-identified White participants. To assess this hypothesis, a planned comparison was completed on the 1-7 admission question. The results were non-significant, $t(81) = -0.51$, $p = 0.61$, indicating that White participants did not rate the DSIP and WPIP candidates any differently than expected by chance. A Chi-Square was also completed on the dichotomous admission variable to assess White participants' ratings of Indigenous candidate admissibility, which revealed non-significant results, $\chi^2(1, N = 84) = 2.87$, $p = 0.09$. Fisher's exact test was also completed because 50% of the cells had expected frequencies of <5 , and was

¹⁴ When outliers were removed, this value became non-significant, $\chi^2(2) = 3.62$, $p = 0.164$.

also non-significant ($p = 0.17$, *Fisher's exact test*). This means White participants did not rate DSIP or WPIP candidates any differently than expected by chance.

3.4 Qualitative Findings

As a final way to assess the candidate, participants were asked why they did or did not admit the candidate in an open-ended question. Answers to this single open-ended question were uploaded into NVivo and analyzed by ethnicity and condition, to get a better understanding of why Indigenous and White participants, separately, decided to admit or not admit the WPIP, DSIP, or White candidate. Given the brevity of the comments, a comprehensive thematic analysis was not deemed appropriate. Instead, simplistic coding was employed, with examples being given below.

Some of the data was very brief, for example “did well at school” – this was coded as academic considerations. Some participants provided more detailed responses: “Taylor appears hard-working and ambitious. He finished with adequate grades during his undergrad, and seems to be involved with some extra-curricular activities. He also has a desired area he would like to work in upon finishing medical school.” This comment was coded as academic considerations, extra-curricular considerations, and as positive traits (specifically, goal-oriented and hard-working). The vast majority of responses cited good academic standing as a reason to admit Taylor: namely, the academic average, the relevant undergraduate degree with honours, and the candidate’s MCAT score. The second most commonly mentioned “themes” were the extra-curricular and leadership activities (i.e., the candidate’s volunteer work as the Vice President of the biological chemistry club and as Captain of the intramural soccer team). Participants also listed a series of positive traits that Taylor possessed as reasons for admitting him, such as in the following quote: “Motivated. Goal oriented. Hard worker. Intelligent. Caring.”

The vast majority of participants elected to admit Taylor, regardless of the condition. The reasons for admitting, as discussed above, are fairly straight forward, surrounding the high quality of the application and perceived good qualities of the candidate. However, in some cases participants elected not to admit Taylor into the medical program. Two Indigenous participants and two White participants in the WPIP condition did not admit Taylor. Their reasoning was that his experiences did not line up with his goal of pediatrics and that his application was not particularly impressive. While most participants indicated he had excellent or at least good grades, one White participant who did not admit him indicated that Taylor’s “average is low for

a medical school candidate,” despite the application indicating an 80% average was sufficient. All participants in the DSIP condition, regardless of ethnic identity, chose to admit Taylor – several participants went into great detail as to how the candidate’s grades, MCAT score, and extra-curricular activities were exceptional, with one participant even saying, “I admire Taylor.”

Eleven Indigenous participants and 6 White participants in the White condition decided not to admit Taylor. Indigenous participants in this condition who did not accept Taylor explained that he did not have any relevant volunteer experience, and others indicated that his application was “unimpressive.” For example, one participant said “Taylor was unimpressive. His responses were simplistic, informal, and lacked any unique qualities.” Some mentioned that his grades were not good enough, or that his bachelors did not indicate his interest in medicine, or that his bio was too short (despite instructions provided on the application that should have addressed these concerns). One participant indicated that his leadership positions were ones in which he “took ultimate credit for the success.” Some White participants also viewed Taylor as unimpressive: “to have only achieved an 88 in a bachelor degree having no other real responsibilities other than playing soccer with your friends is not impressive.” Responses to these questions indicate that participants in the White condition were much more stringent than those in the Indigenous conditions. This series of findings indicates that, overall, White participants rated Indigenous candidates more positively, and thus these findings are further support for Hypothesis 2.

Participants completed several funnel questions to assess their understanding of the purpose of the current research. Several of the comments provided help to situate the results of this research, and thus will be presented here. Many of the Indigenous participants were either White-presenting themselves (as 43% of participants were above the midpoint on the White-presentingness variable) or indicated in the open ended section that they had friends/family that were White-presenting individuals, a finding which may help to explain the lack of horizontal hostility as modelled in Hypothesis 1a. This would also explain the relatively limited amount of horizontal hostility (as defined by White et al., 2006) in post-hoc assessments. While horizontal hostility as defined by White and colleagues (2006) has not been researched in Indigenous samples (to the knowledge of this author), it does align well with lateral violence, a concept that has been discussed in Indigenous communities. Lateral violence has been described as oppressed peoples directing anger towards members of the same oppressed group, instead of towards the

oppressor (Native Women's Association of Canada, n.d.). Importantly, this definition of lateral violence does not explicitly make any claims about an oppressed group's behaviour towards the majority group – i.e., the oppressed group may indeed still direct anger towards the oppressors, but are also directing some of that anger towards members of their own group. This is similar to horizontal hostility as defined by White and colleagues (2006) because at its core, individuals of the same group are being hostile towards each other. In this case, the WPIP candidate was the target of some horizontal hostility/lateral violence. When asked about their suspicions in the study, some darker-skinned and White-presenting Indigenous participants expressed suspicion towards the White-presenting candidate: one darker-skinned Indigenous participant explained “he isn't Aboriginal because he does not appear Aboriginal, trying to exploit the system” and a White-presenting Indigenous participant said “Initially yes, but because I have fair skin and light hair I get that not all indigenous people are dark skinned with dark hair and dark eyes.” The latter quote is particularly interesting, given the participants own identity as a WPIP. In this case in particular, it would appear the Indigenous person automatically assumed the White-presenting Taylor was White, despite their own White-presentingness. This occurrence perhaps highlights the pervasiveness of concerns of individuals claiming Indigenous identity with no community connection, or the pervasiveness of the “stereotypical” Indigenous person. These two quotes illustrate the presence of horizontal hostility/lateral violence within Indigenous participants' responses. The phenomenon was, in some cases, situated explicitly on physical appearance. For example, when asked if they had suspicions about the WPIP candidate, one Indigenous participant said “Gave him a Cree last name and blue eyes. Made me wonder how he identifies... How much he identifies as Indigenous... There are often questions about people who use their identity to their advantage without going through the struggle that comes with it,” thus expressing the idea that Taylor was potentially not *really* Indigenous, because he has blue eyes. Also, the participant alludes to the idea that because one does not “look” Indigenous, he does not go through the struggles that come with being Indigenous. While this participant, does, in general, express suspicion, they did elect to admit the candidate – perhaps they are reflecting more generally, rather than on this individual candidate, and are wanting further information. Furthermore, it is easy to see how struggles that come with being Indigenous can be connected to physical appearance (racial profiling is a salient example here), and it is, again, important to acknowledge White-presenting privilege. Despite some examples of lateral violence,

overwhelmingly, when Indigenous participants were asked if they were suspicious when the WPIP candidate did not appear stereotypically Indigenous, they responded in a favourable manner. For example, one participant said “No, Indigenous people come in all shapes and colours” and another “No because I am indigenous myself but I look White.”

Another finding of interest from analysis of the funnel questions was modern prejudice on the behalf of White participants in the DSIP condition. For example, one participant stated “...no I am not racist, but even putting them above just a White person just because is still not right. What these people went through in the past is wrong in so many ways. We should teach what happened better in schools, but the people on the planet today did not do those things... we should all just be people.” In this statement, the participant expresses their concern with putting Indigenous peoples above White people, although no such claims were made in the study, and participants reviewed only one candidate and were not asked to compare. The participant also situates “wrongs” to Indigenous peoples in the “past,” thus washing their hands of any current atrocities, because these issues are firmly situated before their time. In doing so, the participant is able to make the claim that “people on the planet today did not do those things,” as if the last residential school in Canada did not close within people’s lifetimes, and as if current racism does not exist and no one on earth perpetuates it. The participant finishes their claim with “we should all just be people,” a statement filled with colour blindness. The solution is simple – Indigenous people just need to get over it. Blatant beliefs such as this were not particularly common in the data, although statements indicating modern prejudice occurred with some regularity. However, by no means did all White participants endorse such a belief system.

Lastly, there were some cultural differences expressed in the open-ended admission questions. Where it was respectful for the Indigenous candidates to say they were honoured to be applying to medical school, it was “cocky” for the White candidate to do so. One participant described the DSIP as “...very upfront and honest with his upbringing, which speaks to his character about integrity.” This is contrasted with the White candidate being dubbed entitled or chastised for providing irrelevant information when discussing his upbringing. This is doubly ironic, given the importance of situating oneself within Indigenous contexts – some Indigenous participants indicated that White Taylor’s longstanding background in Winnipeg could be beneficial: “He is engaged in the community, and has been a resident for years, as well as his family. He has grown up hearing about the difficulties of other residents and can hopefully

empathize with them.” Thus, while some White participants perceived the self-situation of the White candidate as arrogant, some Indigenous participants saw it as valuable. However, given the structure of the research, these comments were necessarily brief.

Chapter 4: Discussion

The purpose of this thesis was to assess attitudes towards Indigenous peoples who physically present as White (i.e., White-presenting Indigenous Peoples [WPIPs]). This is a relatively understudied phenomenon, and this study is, perhaps, the first to assess it using an experimental methodology. There are three hypotheses, the first of which was formulated in two competing parts, given previous empirical literature: first (Hypothesis 1a), it was hypothesized that darker-skinned Indigenous participants (DSIPs) would express horizontal hostility towards the WPIP candidate by rating them less worthy of program admission, lower on positive social traits and higher on negative social traits than the White and DSIP candidates; second (Hypothesis 1b), it was hypothesized that, due to strained intergroup relations, Indigenous participants would rate Indigenous candidates more worthy of admission, higher on positive social traits, and lower on negative social traits than the White candidate. Hypothesis 1a was not supported, as Indigenous participants rated Indigenous candidates more positively than the White candidate, regardless of whether they were a DSIP or a WPIP. Furthermore, overall, White-presentingness of the participants did not predict their ratings of candidates in several multiple regressions. Hypothesis 1b was supported, with results indicating that Indigenous participants rated Indigenous candidates more positively than the White candidate on all dependent variables, regardless of White-presentingness of the participant.

There are many reasons why horizontal hostility as modelled in this study may not have been expressed. Within urban contexts, it is very common for people who do not look “stereotypically” Indigenous to identify as such, and many Indigenous peoples have Indigenous friends who are White-presenting. Relations within Saskatchewan between Indigenous and non-Indigenous (particularly White) individuals are precarious, to put it lightly. Anecdotes of overt racism on university campuses post-Stanley verdict¹ only highlight these racial tensions. These experiences may make Indigenous peoples want to band together, and become closer, within their ingroup, despite physical differences. Indeed, in the funnel questions, many Indigenous

¹ Gerald Stanley, a White farmer, was found not guilty after he admitted to directing a gun at Colten Boushie (an Indigenous 22 year old man), resulting in Colten Boushie’s death (Brave NoiseCat, 2018).

individuals spoke of either themselves as White-presenting or of their friends as such. Furthermore, despite the relatively large number of articles using the term “horizontal hostility,” very few exist that have empirically assessed the phenomenon; thus, it is likely under-developed and would benefit from further research to better understand when it is expressed. Lastly, horizontal hostility has rarely been tested on ethnicity – perhaps more research is needed to understand how horizontal hostility may be applied to Indigenous identity within a Canadian context.

The second hypothesis was that self-identified White participants would rate Indigenous candidates (whether DSIP or WPIP) more positively than the White candidate. This hypothesis was based on literature on EVT – high achieving Indigenous peoples violate commonly held negative stereotypes about Indigenous peoples, and thus would be rated more favourably. This hypothesis was strongly supported, with White participants rating Indigenous participants more positively on the vast majority of dependent variables, and with the open-ended responses greatly endorsing Indigenous Taylor instead of White Taylor. In fact, the factors that were lackluster for the White Taylor were exceptional for the Indigenous Taylor. For example, while both the WPIP and DSIP Indigenous Taylor’s grades were “excellent,” White Taylor’s grades were “not impressive.” While both WPIP and DSIP Taylor’s extracurricular activities were viewed almost exclusively positively, and, for example, taught him patience and professional skills while simultaneously showcasing his personable personality, these experiences were sometimes perceived as irrelevant for the White Taylor’s application. This is indicative of EVT, as the Indigenous candidate is rated better than the White candidate – perhaps because the Indigenous candidate is violating participants’ negative stereotypes about Indigenous peoples in general.

One participant’s response in the open-ended admission question greatly supports the idea that EVT is at play: “...The fact that he is native is a secondary but very real consideration and makes me look more favorably on his accomplishments considering many hurdles may have been in his way. He is obviously a leader and would be an asset to the program and a potential role model in his home community.” Here, the participant assesses DSIP Taylor highly because of perceived barriers; for the Indigenous candidate, it is quite impressive to have gotten this far despite perceived obstacles. In this case, the candidate violates the expectation that Indigenous peoples do not succeed academically and are not engaged in extra-curricular and leadership activities (due to barriers). The expectation that is violated is that of the low-achieving

Indigenous student, resulting in a very positive rating of the candidate (i.e., DSIP Taylor is a “role model”), because of this expectancy violation. Furthermore, the quote discussed above was from a White participant in the DSIP condition. Thus, wherein the White condition, Taylor was nothing special, in the DSIP condition, Taylor was exceptional. While this is only one comment in one condition, there is a relative absence of comments like this in other conditions. However, further research in this area would be beneficial to understand when and how EVT is most relevant.

These results must be interpreted carefully. Based on EVT, these results can be clearly explained – individuals who violate expectations in a positive way are more likely to be rated more positively than individuals who conform to expectations. Indigenous people are stereotyped as having traits that would make them poor students, such as being lazy and uneducated (Morrison et al., 2008). In this study, they violate these expectations by being excellent students, with extracurricular activities and academic achievements, blatantly challenging the stereotypes of lazy and uneducated. Also, the statuses of the Indigenous candidates as medical school applicants ipso facto challenges dominant stereotypes about their group. However, to someone without an understanding of this theory, these findings could easily appear to be support for the assumptions underlying modern prejudice (Morrison et al., 2008); for example, that Indigenous people are exploiting their status to receive special privileges, and as they have special privileges, discrimination no longer exists. Alternatively, some may be operating from the belief that, because discrimination no longer exists, any “special privileges” or “accommodations” are not warranted. To these individuals, it is suggested to obtain a thorough understanding of EVT, and readings on privilege and systemic inequities. Acknowledging privilege need not result in (only) guilt, but also in a uniting of strength to dismantle systems that inevitably privilege certain groups and people over others.

Our last hypothesis was that self-identified White participants would rate the DSIP candidate more admissible than the WPIP candidate, as stereotypes are more strongly applied to individuals who are racially stereotypical. This hypothesis was not supported, as White participants were no more likely to admit the DSIP candidate (on both the dichotomous yes/no question and the 1-7 admission question) than the WPIP candidate. This may have been due to a ceiling effect, as both candidates were extremely high-achieving, and both were rated as highly

admissible. Though there were differences, whereby the DSIP candidate was more likely to be admitted, they were not significant.

Overall, both Indigenous and White participants rated Indigenous candidates more positively than the White candidate, despite applications being identical except for the manipulated photograph, name, and one sentence in the personal statement. However, Indigenous participants rated the DSIP candidate significantly more warmly on the feeling thermometer than the WPIP candidate, and rated the DSIP candidate significantly higher on the trait composite than the WPIP candidate. While the lack of relatively higher scores towards the White candidate excludes the possibility of horizontal hostility as modelled in Hypothesis 1a, these findings indicate the existence of horizontal hostility as defined by White and colleagues (2006), similar to lateral violence; despite the WPIP candidate being rated better than the White candidate, he was still being rated *worse* than the DSIP candidate by Indigenous participants. As lateral violence is a much more common term within Indigenous circles that roughly equates to horizontal hostility, it is discussed next.

There is very limited research on lateral violence within Indigenous communities, however, some analogies may be found within nursing literature, where lateral violence has been well documented. Lateral violence is described as any behaviours that demean, belittle, and/or undermine individuals laterally across the same professional level (Sanner-Stiehr & Ward-Smith, 2017). It is verbal, psychological, and physical (Blair, 2013), and potential causes include stress, decreases in civil manners, and personality clashes (Nemeth et al., 2017). Impacts of lateral violence range from sleep issues to suicidal behaviour (Blair, 2013; Sanner-Stiehr & Ward-Smith, 2017). Researchers conclude that lateral violence is very costly – to the victim, the perpetrator, and in this case, the patients and the broader health care system (Blair, 2013). While some of these impacts may be analogous to lateral violence within Indigenous communities (i.e., some of the personal negative health impacts), it is more difficult to provide a direct analogy between the costs in the nursing field and the costs in Indigenous communities. Similarly, some of the solutions to lateral violence (i.e., curricular change, codes of conduct, and faculty modeling [Sanner-Stiehr & Ward-Smith, 2017]) are likely not relevant in Indigenous communities. For these reasons, grey literature is considered.

Lateral violence in Indigenous communities includes a long list of behaviours: e.g., not respecting privacy, ganging up on someone, and ignoring someone (Native Women's

Association of Canada, n.d.). An example of lateral violence is the “marry out, get out” law which in 1981 was adopted as policy within the Mohawk community Kahnawake (Peritz, 2018). The rationale behind this law is that it protects the land and culture of the Mohawk people, by ensuring that Mohawk individuals who marry non-Indigenous people leave the community. It was ruled unconstitutional by the Quebec court in May of 2018. Plaintiffs in the case said they experienced hate mail, online threats, eviction notices, and that their children were bullied because of their parents’ identities (Peritz, 2018). The grounds for lateral violence, in this case, were who an Indigenous person chose to marry.

A report released by the Aboriginal Healing Foundation, Bombay, Matheson, and Anisman (2014) provides results of a preliminary investigation on student-to-student violence in residential schools. This lateral violence took many forms – verbal, physical, sexual, psychological, and emotional, and some forms happened on a daily basis. This lateral violence existed within a context of no protective factors, negative modelling, and ongoing intergenerational trauma. The authors explain the connection between student-to-student lateral violence in residential schools and current lateral violence in Indigenous communities: students would arrive home from residential school thinking their behaviours at residential school were appropriate – and therefore thought “they could continue abusing their loved ones at home...” (p. 111). This illustrates the intergenerational impacts of lateral violence. The lateral violence discussed in the report by Bombay et al. (2014) was often very intense (e.g., stories of continued sexual assault), but the authors did discuss verbal abuse, which may be closer to what was expressed in the current study. This study makes it clear that lateral violence can have lasting impacts.

Gorrige, Ross, and Fforde (2011) document some of the reasons for lateral violence in an Australian Indigenous context, including lightness or darkness of skin. For some Indigenous people with lighter skin, lateral violence is considered a very pressing issue. In a film released by the Native Counselling Services of Alberta, many lighter skinned Indigenous individuals speak of the negative impacts of lateral violence within their community, and the effect it has on their life experiences (BearPaw Legal, 2014). Some call it the most pressing issue facing their communities, as it exists beyond merely tone of skin. They discuss how lateral violence can divide families and friendships, and be very painful to those who are the victims of it. For example, one young man in this film explains that he was called “half-breed” and many other

names growing up, and this bullying resulted in him becoming resentful towards his own people. A young woman recounted, with tears in her eyes, that her mother told her sister she was no longer her child, because she was “White-washed” by her adoptive parents (BearPaw Legal, 2014). These comments are particularly hurtful, as children do not have a choice in who their parents are or whether they are adopted or not.

It is important to note that the existence of lateral violence towards lighter-skinned Indigenous peoples is not, in any case, “reverse racism.” Lighter skinned Indigenous people undoubtedly experience privilege, whether that privilege is “beige” or “White.” However, this privilege does not erase the fact that lateral violence, based on many factors (including skin tone), is painful and serves to divide communities.

Obviously, the presence of lateral violence is troubling. The lateral violence present in the quantitative findings was mirrored in the qualitative findings, with some participants indicating suspicion regarding the White-presenting candidate’s Indigenous identity. With both White and Indigenous participants questioning the candidate’s identity, these findings map on to Lawrence’s (2004) work well, in which both Indigenous and non-Indigenous individuals questioned lighter skinned Indigenous people’s Indigenous identity. These experiences are particularly problematic when considering the potential alienation from the protective factors of Indigenous culture. One quote from an Indigenous participant sums this concept up nicely: “...I know many Indigenous people who appear White and benefit from their appearance. But it's a double edged sword as they often have a harder time feeling a sense of belonging in either community.” However, it is important to acknowledge that participants were much more likely to not have any suspicions about Taylor.

In most cases, lateral violence was not identified within either the qualitative or quantitative data, and in fact, some participants made statements that appeared to push against the idea of lateral violence. While some Indigenous individuals undoubtedly experience negative impacts of lateral violence, as indicated by Lawrence’s work and much grey literature, there are some considerations to make. Specifically, the current data indicated a relatively small amount of lateral violence, and research indicates that negative experiences are overwhelmingly more salient in the human mind than positive ones (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). Thus, while the experiences documented in Lawrence’s (2004) work are undeniably those of the participants, it is unclear as to how *frequent* these occurrences are. Based on the current

study, it would appear that the expression of beliefs congruent with lateral violence are somewhat infrequent. This may reflect a different methodology (i.e., Lawrence's research used a qualitative method, and the current study was mostly quantitative in nature), or perhaps changes in attitudes since Lawrence's data were collected, undoubtedly prior to 2004.

Research on racial anxiety is also potentially pertinent here. Tropp and Godsil (2014) explain that racial anxiety occurs when individuals (in much research, White individuals) are anxious that they will be perceived as racist by members of an ethnic minority with whom they are interacting, and that ethnic minority individuals may be anxious that White individuals will act in a racist manner towards them. This can result in behaviours, on behalf of the White individual, that may mimic behaviours of those who hold racist beliefs: less smiling and eye contact, more physical distance, a less friendly tone of voice, and avoidance of individuals who belong to an ethnic minority group. With this explanation in mind, it is easy to see potential parallels to WPIPs experiences with DSIPs. Perhaps WPIPs are initially somewhat uncomfortable within Indigenous spaces populated with DSIPs, exhibit "colder" behaviour in general, and thus are perceived as less warm by DSIPs. Research in this area would likely yield insight about these important phenomena.

The findings of this study attested to the psychometric properties of the M-PATAS. There was a significant negative correlation between the M-PATAS and the scholarship composite in both condition 1 and condition 2, meaning that White participants who scored higher on the M-PATAS were less likely to award the candidate scholarship moneys (and vice-versa). The M-PATAS was also significantly correlated with the feeling thermometer rating for participants in condition 3, indicating that those who scored higher on the M-PATAS also felt more warmly towards the White participant. These findings are evidence of the construct validity of the M-PATAS.

4.1 Limitations and Future Directions

While this study provides valuable insights into perspectives and attitudes towards White-presenting Indigenous peoples, further research is needed. Future researchers may consider addressing some limitations of the current methodology. This study did not have a formal "control" condition, in which ethnicity would not have been stated. This was done because it was reasoned that many participants would assign an ethnicity to the candidate anyways, and if that were the case, there would be absolutely no control over the variable.

Therefore, it was decided the best course of action was to assign ethnicities to all three conditions of interest. Future research might include a further condition that does not specify ethnicity.

Ecological validity could have been increased, as indicated by a few participants who explained they were uncomfortable rating the candidate knowing so little about them. Although quickly assessing a large number of candidates is common for adjudicators in many cases, this could have been made more explicit for participants to alleviate this concern. Furthermore, given the high ratings of all candidates due to their fairly objective competency, future research may look to create more average candidates to avoid potential ceiling effects. Previous research has yielded interesting results when looking at average candidates – e.g., Dovidio and Gaertner (2000) found that White students rated Black candidates worse than White candidates for a peer counsellor role when both candidates were “average” in their applications. A similar approach – whereby more average candidates are used – may produce findings that align better with a horizontal hostility framework. This was considered for the current study, but it was deemed inappropriate to have an “average” medical school applicant, as it would likely greatly impact the ecological validity.

The current study used a self-report method to assess each participant’s White-presentingness. In future research, it would be beneficial to have some type of an objective measure of White-presentingness, perhaps using photographs or interviews. Based on anecdotal experiences, Indigenous individuals who are somewhat lighter skinned often express anxiety over their appearance in Indigenous spaces – some onlookers may code them as Indigenous immediately and others may not. Creating an objective way to assess White-presentingness would likely help ensure a more accurate analysis by this variable.

Some participants may have expressed demand characteristics, whereby they were aware of the hypotheses of the study and responded accordingly; in condition 1 (WPIP), removal of individuals who had knowledge of the hypotheses reduced significant correlations. However, most of the correlations became only marginally non-significant, and this may have been due to reduced power when removing participants from the analysis. It is also important to note that, in most cases, removal of participants who had knowledge of the hypotheses *did not* reduce the significant impacts of condition in analyses for the hypotheses.

As became apparent after reading participants' responses to the funnel questions, some participants challenged the idea of an ethnic identity residing in a check box on an application, and desired to know more about the WPIPs' connection with his Indigenous identity. With this finding in mind, it would be particularly interesting to explicitly assess lateral violence using several different conditions, wherein participants differed in physical appearance and also in community engagement. Participants who are White-presenting, but evidence a high amount of engagement within Indigenous communities, may experience very little lateral violence after the initial surprise coming from the individual's appearance, as described by Lawrence (2004): when a particularly strong cultural tie was evidenced, such as fluency in an Indigenous language, concerns about authenticity of identity were alleviated.

Given the blatant existence of lateral violence within communities, such as in the Kahnawake community, discussed earlier, it would be interesting to explicitly assess endorsement of lateral violence within Indigenous peoples. Furthermore, given the expression of lateral violence from Indigenous peoples who are themselves White-presenting, it would be interesting to assess lateral violence within White-presenting Indigenous peoples. It is possible that horizontal hostility would be expressed among White-presenting Indigenous peoples based on more subtle features – e.g., eye colour, hair colour, facial features, accent, or interests. That is, perhaps horizontal hostility was not expressed in the current study because the groups being studied were not fine-grained enough. This is similar to findings from White et al., (2006) where varsity soccer players did not negatively evaluate intramural soccer players – potentially because this boundary was perceived to be impermeable. The same logic can be applied here: WPIPs are unlikely to ever appear “more Indigenous,” so perhaps horizontal hostility was not expressed due to that. However, horizontal hostility may be expressed among WPIPs.

Much grey literature attests to the negative impacts of lateral violence. However, it would be valuable to better understand the impacts of lateral violence on Indigenous peoples and the frequency of occurrence in certain contexts. It would also be useful to better understand the causes of lateral violence, perhaps by discussing the expression of lateral violence with perpetrators. This information could help to better inform interventions for lateral violence within Indigenous communities, as much of the current material to address lateral violence does not appear to be evidence based.

Lastly, the only known empirical research on lighter skinned Indigenous peoples is that published by Lawrence (2004). It would be very valuable to update this research, as nearly 15 years has elapsed since it was published (and undoubtedly more since the data were collected and analyzed). If Lawrence's claim that mixed-race Indigenous peoples are increasing is valid, then perhaps securing research participants would not be particularly problematic. It also would be interesting to pursue, in a qualitative study, some of the comments made in the current study. For example, how often do White-presenting Indigenous peoples negatively evaluate other White-presenting Indigenous peoples and why? How many Indigenous peoples endorse the idea of blood quantum as a way to assess Indigenous identity?

4.2 Conclusion

Overall, participants indicated they favoured the Indigenous candidates. For the White participants, this can be understood as evidence of Expectancy Violation Theory, as participants rated the Indigenous candidates more favourably than the White candidate, despite the descriptions of the candidates being identical except for ethnically identifying information. Some participants indicated that they admitted these candidates explicitly because of their Indigenous identity, and further because of the challenges they may have faced in their lives because of their Indigenous identity. There was limited evidence of horizontal hostility within Indigenous participants, and the evidence that was present mapped onto lateral violence, as Indigenous participants rated the darker-skinned Indigenous candidate more positively than the lighter skinned Indigenous candidate on some traits. However, overall, Indigenous participants rated the Indigenous candidates better than the White candidate, evidencing in-group bias. These results help us to understand the experiences of Indigenous individuals who are multiracial or lighter skinned, as how others perceive an individual inevitably impacts their experiences.

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Table 1*Variable descriptives by participant ethnicity*

Measures	Total (<i>n</i> = 242)				Indigenous (<i>n</i> = 121)				White (<i>n</i> = 121)			
	<i>M</i> (<i>SD</i>)	Md	Range (Possible)	α (95% CI)	<i>M</i> (<i>SD</i>)	Md	Range (Possible)	α (95% CI)	<i>M</i> (<i>SD</i>)	Md	Range (Possible)	α (95% CI)
M-PATAS	-	-	-	-	-	-	-	-	45.43 (18.5)	56	14-93 (14-98)	.95 (.94-.97)
SDS-17	7.63 (3.12)	7	0-15 (0-15)	.69 (.63-.74)	7.41 (3.17)	7	0-15 (0-15)	.70 (.62-.78)	7.85 (3.07)	7	0-15 (0-15)	.67 (.58-.75)
Admission	5.97 (1.20)	4	1-7 (1-7)	-	5.86 (1.44)	4	1-7 (1-7)	-	6.08 (0.89)	4	2-7 (1-7)	-
Feeling thermometer	79.74 (17.74)	50	5-100 (0-100)	-	80.09 (19.99)	50	5-100 (1-100)	-	79.39 (15.31)	50	8-100 (0-100)	-
Alcohol ^a	4.29 (1.38)	4	1-7 (1-7)	-	4.08 (1.53)	4	1-6 (1-7)	-	4.51 (1.19)	4	1-7 (1-7)	-
Attitude	5.63 (1.04)	4	1-7 (1-7)	-	5.62 (1.16)	4	1-7 (1-7)	-	5.64 (0.89)	4	3-7 (1-7)	-
Traits	5.57 (0.82)	4	2.4-7 (1- 7)	.79 (.75-.83)	5.57 (0.96)	4	2.4-7 (1- 7)	.85 (.80-.89)	5.56 (0.66)	4	3.8-6.6 (1-7)	.67 (.57-.75)
Scholarship	4.35 (1.43)	4	1-7 (1-7)	.88 (.85-.90)	4.52 (1.54)	4	1-7 (1-7)	.89 (.86-.92)	4.17 (1.30)	4	1-6.75 (1-7)	.86 (.82-.90)

Notes. Indigenous participants did not complete the M-PATAS. *M* = mean; *SD* = Standard Deviation; Md = midpoint of scale; α = alpha coefficient; CI = Confidence Interval; M-PATAS = Modern Prejudiced Attitudes Toward Aboriginals Scale; SDS-17 = Social Desirability Scale. a = alcohol was reverse coded, such that a positive correlation indicates higher (or lower) levels of perceived candidate drinking paired with higher (or lower) values on the variable.

Table 2*Variable descriptives by condition*

Measures	Condition 1 (WPIP; <i>n</i> = 72)				Condition 2 (DSIP; <i>n</i> = 91)				Condition 3 (White; <i>n</i> = 79)			
	<i>M</i> (<i>SD</i>)	Md	Range (Possible)	α (95% CI)	<i>M</i> (<i>SD</i>)	Md	Range (Possible)	α (95% CI)	<i>M</i> (<i>SD</i>)	Md	Range (Possible)	α (95% CI)
M-PATAS	44.11 (16.23)	56	15-71 (14-98)	.94 (.90-.96)	48.24 (18.72)	56	14-92 (14-98)	.96 (.93-.97)	42.86 (20.17)	56	14-93 (14-98)	.96 (.94-.98)
SDS-17	7.67 (3.24)	7	0-15 (0-15)	.70 (.59-.79)	7.68 (3.15)	7	2-15 (0-15)	.70 (.60-.78)	7.53 (3.02)	7	1-15 (0-15)	.67 (.55-.77)
Admission	6.15 (1.23)	4	1-7 (1-7)	-	6.30 (1.02)	4	1-7 (1-7)	-	5.43 (1.19)	4	2-7 (1-7)	-
Feeling thermometer	80.94 (16.57)	50	8-100 (0-100)	-	87.67 (9.96)	50	57-100 (0-100)	-	69.13 (20.66)	50	5-100 (0-100)	-
Alcohol ^a	4.00 (1.36)	4	1-6 (1-7)	-	4.11 (1.40)	4	1-6 (1-7)	-	4.77 (1.26)	4	1-7 (1-7)	-
Attitude	5.79 (0.79)	4	3-7 (1-7)	-	6.10 (0.68)	4	4-7 (1-7)	-	4.95 (1.21)	4	1-7 (1-7)	-
Traits	5.69 (0.66)	4	3.8-6.8 (1-7)	.69 (.57-.79)	5.99 (0.56)	4	4-7 (1-7)	.68 (.57-.78)	4.98 (0.87)	4	2.4-6.6 (1-7)	.78 (.69-.85)
Scholarship	4.7 (1.15)	4	1.75-7 (1-7)	.84 (.77-.90)	5.03 (1.08)	4	1.75-7 (1-7)	.76 (.66-.83)	3.23 (1.36)	4	1-6.25 (1-7)	.87 (.82-.91)

Notes. Indigenous participants did not complete the M-PATAS. *M* = mean; *SD* = Standard Deviation; Md = midpoint of scale; α = alpha coefficient; CI = Confidence Interval; M-PATAS = Modern Prejudiced Attitudes Toward Aboriginals Scale; SDS-17 = Social Desirability Scale. a = alcohol was reverse coded, such that a positive correlation indicates higher (or lower) levels of perceived candidate drinking paired with higher (or lower) values on the variable.

Table 3*Variable descriptives by condition and ethnicity*

Indigenous Participants												
Measures	Condition 1 (WPIP, <i>n</i> = 35)				Condition 2 (DSIP, <i>n</i> = 42)				Condition 3 (White, <i>n</i> = 42)			
	<i>M</i> (<i>SD</i>)	Mid	Range (Possible)	α (95%CI)	<i>M</i> (<i>SD</i>)	Mid	Range (Possible)	α (95%CI)	<i>M</i> (<i>SD</i>)	Mid	Range (Possible)	α (95%CI)
M-PATAS	-	-	-	-	-	-	-	-	-	-	-	-
SDS-17	7.70 (3.41)	7	0-15 (0-16)	.73 (.59-.84)	7.24 (3.06)	7	2-14 (0-16)	.69 (.53- .81)	7.31 (3.14)	7	1-14 (0-16)	.70 (.55- .82)
Admission	6.08 (1.44)	4	1-7 (1-7)	-	6.29 (1.40)	4	1-7 (1-7)	-	5.24 (1.28)	4	2-7 (1-7)	-
Feeling thermometer	82.63 (12.83)	50	49-100 (1- 100)	-	91.07 (10.70)	50	57-100 (1- 100)	-	66.35 (24.39)	50	5-96 (1-100)	-
Alcohol ^a	3.73 (1.52)	4	1-6 (1-7)	-	3.81 (1.53)	4	1-6 (1-7)	-	4.67 (1.37)	4	1-6 (1-7)	-
Attitude	5.84 (0.87)	4	3-7 (1-7)	-	6.24 (0.82)	4	4-7 (1-7)	-	4.81 (1.23)	4	1-6 (1-7)	-
Traits	5.76 (0.67)	4	3.80-6.80 (1-7)	.74 (.57-.85)	6.18 (0.63)	4	4-7 (1-7)	.77 (.64- .86)	4.80 (1.23)	4	2.40-6.40 (1-7)	.81 (.71- .89)
Scholarship	4.93 (1.15)	4	1.75-7 (1-7)	.86 (.76-.92)	5.43 (0.96)	4	3.25-7 (1-7)	.65 (.44- .79)	3.26 (1.50)	4	1-6.25 (1-7)	.89 (.83- .94)

Table 3, continued
Variable descriptives by condition and ethnicity

White Participants												
Measures	Condition 1 (WPIP, <i>n</i> = 34)				Condition 2 (DSIP, <i>n</i> = 48)				Condition 3 (White, <i>n</i> = 35)			
	<i>M</i> (<i>SD</i>)	Mid	Range (Possible)	α (95% CI)	<i>M</i> (<i>SD</i>)	Mid	Range (Possible)	α (95% CI)	<i>M</i> (<i>SD</i>)	Mid	Range (Possible)	α (95% CI)
M-PATAS	44.11 (16.23)	4	15-71 (14- 98)	.94 (.90- .96)	48.24 (18.72)	4	14-92 (14- 98)	.96 (.93- .97)	42.86 (20.18)	4	14-93 (14- 98)	.96 (.94- .98)
SDS-17	7.63 (3.10)	7	0-15 (0- 16)	.68 (.49- .81)	8.06 (3.20)	7	2-15 (0- 16)	.71 (.57- .82)	7.78 (2.92)	7	3-15 (0- 16)	.63 (.43- .78)
Admission	6.23 (0.97)	4	3-7 (1-7)	-	6.31 (0.51)	4	5-7 (1-7)	-	5.65 (1.06)	4	2-7 (1-7)	-
Feeling thermometer	79.26 (19.67)	50	8-100 (1- 100)	-	84.76 (8.33)	50	62-100 (1- 100)	-	72.22 (15.26)	50	40-100 (1- 100)	-
Alcohol ^a	4.29 (1.12)	4	1-6 (1-7)	-	4.37 (1.24)	4	1-6 (1-7)	-	4.90 (1.13)	4	1-7 (1-7)	-
Attitude	5.74 (0.70)	4	4-7 (1-7)	-	5.98 (0.52)	4	4-7 (1-7)	-	5.11 (1.17)	4	3-7 (1-7)	-
Traits	5.62 (0.66)	4	4-6.60 (1- 7)	.65 (.42- .80)	5.82 (0.44)	4	4.60-6.60 (1-7)	.44 (.15- .66)	5.18 (0.73)	4	3.80-6.60 (1-7)	.68 (.48- .82)
Scholarships	4.46 (1.11)	4	1.75-6.50 (1-7)	.82 (.69- .90)	4.69 (1.07)	4	1.75-6.75 (1-7)	.78 (.66- .87)	3.20 (1.21)	4	1.00-5.75 (1-7)	.85 (.76- .92)

Notes. Indigenous participants did not complete the M-PATAS. *M* = mean; *SD* = Standard Deviation; Mid = midpoint of scale; α = alpha coefficient; CI = Confidence Interval; M-PATAS = Modern Prejudiced Attitudes Toward Aboriginals Scale; SDS-17 = Social Desirability Scale. a = alcohol was reverse coded, such that a positive correlation indicates higher (or lower) levels of perceived candidate drinking paired with higher (or lower) values on the variable.

Table 4*Participant demographics by ethnicity*

Variable	Indigenous Participants (<i>n</i> = 121)	White Participants (<i>n</i> = 121)
Year born	<i>M</i> = 1985.64, <i>SD</i> = 11.55	<i>M</i> = 1991.22, <i>SD</i> = 8.85
System access	Pool = 13, Other = 108	Pool = 55, Other = 66
Sex	Female = 88, Male = 31	Female = 81, Male = 38
Student at the University of Saskatchewan	Yes = 41, No = 80	Yes = 74, No = 47
Staff/faculty at the University of Saskatchewan	Yes = 2, No = 78	Yes = 3, No = 44
Resident in Saskatchewan	Yes = 16, No = 60	Yes = 7, No = 37
College		
Agriculture and Bioresources	1	1
Arts and Science	28	48
Dentistry	0	0
Education	5	1
Edwards School of Business	2	13
Engineering	0	5
Environment and Sustainability	0	0
Kinesiology	0	1
Law	1	0
Medicine	2	2
Nursing	1	0
Pharmacy and Nutrition	0	2
Physical Therapy	0	0
Public Health	1	0
Public Policy	0	1
Veterinary Medicine	0	0

Notes. *M* = mean. *SD* = standard deviation. System access = the system the participant accessed the survey through. Pool = the University of Saskatchewan undergraduate participant pool.

Table 5*Overall variable correlations*

	1	2	3	4	5	6	7	8	9
1. M-PATAS		-.08	b	.11	.05	.00	-.03	-.08	-.19
2. SDS-17			.01	-.09	-.09	.21**	-.11	-.12	-.15*
3. Admission (YN)				.59**	.32**	-.14* ^c	.39**	.45**	.32**
4. Admission					.58**	-.26**	.58**	.57**	.43**
5. Feeling thermometer						-.31**	.68**	.60**	.54**
6. Alcohol ^a							-.40**	-.31**	-.42**
7. Attitude								.69**	.55**
8. Traits									.63**
9. Scholarship									

Note. ** $p < 0.01$. * $p < 0.05$. Indigenous participants did not complete the M-PATAS. M-PATAS = Modern Prejudiced Attitudes Toward Aboriginals Scale; SDS-17 = Social Desirability Scale; Admission (YN) = dichotomous Admission variable. a = alcohol was reverse coded, such that a positive correlation indicates higher (or lower) levels of perceived candidate drinking paired with higher (or lower) values on the variable. b = Cannot be computed because at least one of the variables is constant (all participants elected to admit the DSIP candidate for the yes/no admission question).

Table 6*Variable correlations by condition and ethnicity*

Indigenous, Condition 1 (WPIP, <i>n</i> = 33)	1	2	3	4	5	6	7	8	9
1. M-PATAS	-	-	-	-	-	-	-	-	-
2. SDS-17			.13	-.19	-.04	.24	.04	.04	.01
3. Admission (YN)				.33	.24	-.37 ^{*d}	.51 ^{**e}	.49 ^{**f}	.51 ^{**}
4. Admission					.63 ^{**g}	-.44 ^{**}	.77 ^{**}	.63 ^{**}	.47 ^{**}
5. Feeling thermometer						-.36 ^{*h}	.64 ^{**i}	.56 ^{**}	.52 ^{**}
6. Alcohol ^a							-.47 ^{**}	-.41 ^{*j}	-.56 ^{**k}
7. Attitude								.75 ^{**}	.55 ^{**}
8. Traits									.66 ^{**}
9. Scholarship									
Indigenous, Condition 2 (DSIP, <i>n</i> = 40)	1	2	3	4	5	6	7	8	9
1. M-PATAS	-	-	-	-	-	-	-	-	-
2. SDS-17			b	-.10	.17	.18	-.04	-.03	-.12
3. Admission (YN)				b	b	b	b	b	b
4. Admission					.54 ^{**}	-.01	.17	.20	.17
5. Feeling thermometer						-.09	.41 ^{**}	.25	.22
6. Alcohol ^a							-.12	.10	.01
7. Attitude								.48 ^{**}	.40 [*]
8. Traits									.48 ^{**}
9. Scholarship									

Table 6 continued

Indigenous, Condition 3 (White, $n = 37$)	1	2	3	4	5	6	7	8	9
1. M-PATAS		-	-	-	-	-	-	-	-
2. SDS-17			-.12	-.11	-.11	.38*	-.03	-.09	-.44**
3. Admission (YN)				.78**	.33*	-.12	.44**	.55**	.33*
4. Admission					.46**	-.17	.57**	.60**	.30
5. Feeling thermometer						-.31	.73**	.58**	.38*
6. Alcohol ^a							-.56**	-.38*	-.54**
7. Attitude								.67**	.39*
8. Traits									.55**
9. Scholarship									
White, Condition 1 (WPIP, $n = 28$)	1	2	3	4	5	6	7	8	9
1. M-PATAS		.03 b	.27	-.09	-.32	.05	-.32	-.44*	
2. SDS-17			b	-.12	-.25	.31	-.22	-.22	-.02
3. Admission (YN)				b	b	b	b	b	b
4. Admission					.37* ¹	-.15	.23	.08	.16
5. Feeling thermometer						-.36	.58**	.44*	.31
6. Alcohol ^a							-.32	-.11	-.05
7. Attitude								.50** ^m	.02
8. Traits									.24
9. Scholarship									

Table 6 continued

White, Condition 2 (DSIP, $n = 47$)	1	2	3	4	5	6	7	8	9
1. M-PATAS		-.22	b	.10	-.23	.02	-.15	-.15	-.46**
2. SDS-17			b	-.05	-.20	-.05	-.08	-.22	.01
3. Admission (YN)				b	b	b	b	b	b
4. Admission					.27	-.42**	.47**	.14	.22
5. Feeling thermometer						-.29	.63**	.36*	.57**
6. Alcohol ^a							-.16	-.19	-.28
7. Attitude								.10	.38**
8. Traits									.30*
9. Scholarship									
White, Condition 3 (White, $n = 27$)	1	2	3	4	5	6	7	8	9
1. M-PATAS		.02	b	.11	.46*	.09	.05	.13	.26
2. SDS-17			b	-.28	-.32	.30	-.67**	-.66**	-.45*
3. Admission (YN)				b	b	b	b	b	b
4. Admission					.50**	-.18	.47*	.45*	.18
5. Feeling thermometer						-.19	.52**	.52**	.48*
6. Alcohol ^a							-.55**	-.51**	-.50**
7. Attitude								.73**	.55**
8. Traits									.48**
9. Scholarship									

Note. ** $p < 0.01$. * $p < 0.05$. Indigenous participants did not complete the M-PATAS. M-PATAS = Modern Prejudiced Attitudes Toward Aboriginals Scale; SDS-17 = Social Desirability Scale; Admission (YN) = dichotomous Admission variable. a = alcohol was reverse coded, such that a positive correlation indicates higher (or lower) levels of perceived candidate drinking paired with higher (or lower) values on the variable. b = Cannot be computed because at least one of the variables is constant (all participants elected to admit the DSIP candidate for the yes/no admission question). c = when those who answered yes to funnel question number 7 were excluded from the analysis, this figure became non-significant $r(191) = -.11, p = 0.121$. d-m, values became non-significant after removing individuals who indicated awareness of hypotheses: $r(15) = -.41, p = 0.13$; d = $r(15) = .44, p = .11$; e = $r(15) = .38, p = 0.17$; f = $r(15) = 0.47, p = 0.08$; g = $r(15) = -.25, p = 0.38$; h = $r(15) = .46, p = 0.09$; i = $r(15) = -.49, p = 0.07$; j = $r(15) = -.41, p = 0.13$; k = $r(23) = .33, p = 0.13$; l = $r(23) = .38, p = 0.07$.

Table 7*Correlations between White-presentingness and dependent variables*

	SDS-17	Admission (YN)	Admission	Feeling Thermometer	Alcohol ^a	Attitude	Traits	Scholarship
WPsum	.047	-.079	.199	.080	.212	.280	.412*	.004
<u>Condition 1 (n=35)</u>								
WPsum	.217	b	.025	.159	.184	.160	.148	-.063
<u>Condition 2 (n = 42)</u>								
WPsum	.028	.063	.067	.168	.213	-.046	-.239	-.277
<u>Condition 3 (n = 40)</u>								

Note. * $p < 0.05$. WPsum = White-presentingness Sum; SDS-17 = Social Desirability Scale; Admission (YN) = dichotomous admission variable. a = alcohol was reverse coded, such that a positive correlation indicates higher (or lower) levels of perceived candidate drinking paired with higher (or lower) values on the variable. b = Cannot be computed because at least one of the variables is constant (all participants elected to admit the DSIP candidate for the yes/no admission question). Outliers and 10 Indigenous participants who did not complete the White-presentingness questions were removed from this analysis.

Table 8*Summary of multiple linear regression analysis*

Var	<i>Model 1 (condition)</i>							<i>Model 2 (White-presentingness)</i>							<i>Model 3 (interaction)</i>						
	<i>R</i>	<i>R</i> ²	<i>F</i>	<i>β</i>	<i>R</i> ^{2Δ}	<i>F</i> ^Δ	<i>sr</i> ²	<i>R</i>	<i>R</i> ²	<i>F</i>	<i>β</i>	<i>R</i> ^{2Δ}	<i>F</i> ^Δ	<i>sr</i> ²	<i>R</i>	<i>R</i> ²	<i>F</i>	<i>β</i>	<i>R</i> ^{2Δ}	<i>F</i> ^Δ	<i>sr</i> ²
1-7	.48	.24	30.03	.48	.23	30.03	.23	.48	.23	15.29	0.07	.01	.65	.00	.48	.24	10.12	-.06	.00	.07	.00
FT	.51	.26	35.11	.51	.26	35.11	.26	.53	.28	18.75	.12	.02	2.02	.02	.53	.28	12.43	-.08	.00	.12	.00
Al	.19	.03	3.63	-.19	.03	3.63	.03	.27	.07	<u>3.97</u>	<u>.20</u>	.04	<u>4.20</u>	.04	.27	.07	2.62	-.01	.00	.00	.00
At	.48	.23	30.78	.48	.23	30.78	.23	.49	.24	16.07	.10	.01	1.29	.01	.50	.25	10.91	.18	.01	.69	.01
TC	.59	.34	53.11	.59	.34	53.11	.34	.59	.35	26.55	.05	.00	.34	.00	.60	.36	18.98	.34	.02	2.86	.02
SC	.58	.34	52.76	.58	.34	52.76	.34	.59	.35	27.56	-.11	.01	1.89	.01	.60	.36	18.94	.24	.01	1.45	.01
YN	.30	.09	9.83	.30	.09	9.83	.09	.30	.09	4.88	.01	.00	.02	.00	.30	.09	<u>3.27</u>	-.09	.00	.14	.00

Notes. Bold = $p < .01$; underline = $p < .05$. 1-7 = admission 1-7; FT = feeling thermometer; Al = alcohol use; At = attitude; TC = trait composite; SC = scholarship composite; YN = admission yes/no. Outliers and 10 Indigenous participants who did not complete the White-presentingness questions were removed from this analysis.

Appendix A: Demographic Questions

Ethnicity

Please check all of the options that represent your ethnicity.

- Aboriginal (Inuit, Métis, First Nations, North American Indian, etc.)
- Arab/West Asian (e.g., Armenian, Egyptian, Iranian, Lebanese, Moroccan, etc.)
- Black (e.g., African, Haitian, Jamaican, Somali, etc.)
- East Asian (e.g., Chinese, Japanese, Korean, Mongolian, etc.)
- Latin American (e.g., Brazilian, Ecuadorian, Argentinian, Colombian, etc.)
- South Asian (e.g., Afghani, Bangladeshi, Indian, Nepalese, Pakistani, etc.)
- South East Asian (e.g., Cambodian, Indonesian, Malaysian, Phillipino, Vietnamese, etc.)
- White (Caucasian)
- Other (please specify)

Please select your sex.

- Female
- Male
- Transgender (FTM)
- Transgender (MTF)

Please specify your preferred sex if it did not appear on the list.

In what year were you born? _____

Are you currently enrolled in courses at the University of Saskatchewan?

- Yes
- No

If yes to enrollment question

Please indicate your college of study. Please select one answer.

- Agriculture and Bioresources
- Arts and Science
- Dentistry
- Education
- Edwards School of Business
- Engineering
- School of Environment and Sustainability
- Kinesiology
- Law
- Medicine
- Nursing
- Pharmacy and Nutrition
- School of Physical Therapy
- School of Public Health
- Johnson Shoyama Graduate School of Public Policy
- Veterinary Medicine

If no to enrollment question

Are you staff or faculty at the University of Saskatchewan?

Yes

No

If no to above question

Do you currently reside in Saskatchewan?

Yes

No

Appendix B: Outgroup Saliency Exercise

Now we are going to ask you a few questions about doctors in general. There are 36.29 million people living in Canada. We are interested in habits of the general public. Please answer these questions about most people, **based on what you know about the general public, NOT your personal opinion.**

1. What do most Canadians think of doctors? Helpful, busy, friendly, intelligent, other
2. How often do most Canadians visit their doctor? Weekly, monthly, every 6 months, every year, other
3. Why do most Canadians visit their doctor? Acute issues (issues with a cure, such as an infection), chronic issues (issues with no cure, such as diabetes), check-ups, other

Appendix C: Candidate Applications

Universities have a set of rules to decide who can be admitted into certain academic programs. These rules change as new information becomes available. In this study, we are trying to understand how different types of information can be used for medical school applications.

Please review the three parts of the application below:

1. Taylor [Asinawâsis'/Henderson] Application Form
2. Taylor [Asinawâsis'/Henderson] Photograph
3. Taylor [Asinawâsis'/Henderson] Personal Statement

After reviewing this information, we will ask you to indicate if you think Taylor should be admitted into medical school or not.

Please note, admission to a typical medical school requires the student to have a minimum average of approximately 80%, a Bachelor's degree, and approximately 519 on the entrance exam. Please review the following information.

You will be able to click next after 2 minutes have passed. Please take time to review this application and take in as much information as you can, as you will be asked questions about the candidate throughout the study.

Medical Application – Brief

Applicant Information

Name: Asinawâsis Taylor Ethnicity: Aboriginal Sex: Male Date of birth: 01/19/95
Last First MM/DD/YY

Address: 1036 Aird Street Saskatoon SK S7N0P4
Street Address City Province Postal Code

Phone: 306 317 6098 Email: taylor.asinawasis@usask.ca

Are you a citizen of Canada?	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	Completed the Medical College Administration Test?	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
Are you up to date with your immunizations?	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	Score: (max 528)	<u>522</u>
Have you completed your criminal record check?	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	Academic Average (%): (minimum 75%)	<u>88%</u>
Have you graduated from your undergraduate degree?	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		

Undergraduate Degree Program: Biological chemistry (honours)

Extracurricular/Volunteer Activities

Please list only two extracurricular or volunteer activities.

Organization: Biological Chemistry Club
Title: Vice President
Duties (250 character maximum): In this club, I helped to connect students with different services on campus (such as our mentoring program for new students). I also helped to plan and execute events throughout the year. This was a great leadership opportunity for me to learn about organizational skills.

Organization: Intramural Soccer
Title: Captain
Duties (250 character maximum): As captain, it was my duty to ensure that enough players came out to each game so that we could play, to submit defaults when we could not play, and to ensure fair play. Our team made it to the playoffs.

Disclaimer and Signature

I certify that my answers are true and complete to the best of my knowledge.

False or misleading information in this application may result in the exclusion of my application.

Signature:  Date: September 29th, 2017



My name is Taylor and I am honoured to be applying for admission to medical school. I'm First Nations from Wasagamack First Nation in Treaty 5 territory, but I was born in Winnipeg. I hope to become a pediatrician, and will specialize in neurological disorders in children.

Medical Application – Brief

Applicant Information

Name: Asinawâsis Taylor Ethnicity: Aboriginal Sex: Male Date of birth: 01/19/95
Last First MM/DD/YY

Address: 1036 Aird Street Saskatoon SK S7N0P4
Street Address City Province Postal Code

Phone: 306 317 6098 Email: taylor.asinawasis@usask.ca

Are you a citizen of Canada?	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	Completed the Medical College Administration Test?	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
Are you up to date with your immunizations?	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	Score: (max 528)	<u>522</u>
Have you completed your criminal record check?	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	Academic Average (%): (minimum 75%)	<u>88%</u>
Have you graduated from your undergraduate degree?	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		

Undergraduate Degree Program: Biological chemistry (honours)

Extracurricular/Volunteer Activities

Please list only two extracurricular or volunteer activities.

Organization: Biological Chemistry Club
Title: Vice President
Duties (250 character maximum): In this club, I helped to connect students with different services on campus (such as our mentoring program for new students). I also helped to plan and execute events throughout the year. This was a great leadership opportunity for me to learn about organizational skills.

Organization: Intramural Soccer
Title: Captain
Duties (250 character maximum): As captain, it was my duty to ensure that enough players came out to each game so that we could play, to submit defaults when we could not play, and to ensure fair play. Our team made it to the playoffs.

Disclaimer and Signature

I certify that my answers are true and complete to the best of my knowledge. False or misleading information in this application may result in the exclusion of my application.

Signature:  Date: September 29th, 2017



My name is Taylor and I am honoured to be applying for admission to medical school. I'm First Nations from Wasagamack First Nation in Treaty 5 territory, but I was born in Winnipeg. I hope to become a pediatrician, and will specialize in neurological disorders in children.

Medical Application – Brief

Applicant Information

Name: Henderson Taylor Ethnicity: White Sex: Male Date of birth: 01/19/95
Last First MM/DD/YY

Address: 1036 Aird Street Saskatoon SK S7N0P4
Street Address City Province Postal Code

Phone: 306 317 6098 Email: taylor.henderson@usask.ca

Are you a citizen of Canada?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	Completed the Medical College Administration Test?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
Are you up to date with your immunizations?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	Score: (max 528)	<u>522</u>	
Have you completed your criminal record check?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	Academic Average (%) (minimum 75%)	<u>88%</u>	
Have you graduated from your undergraduate degree?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			

Undergraduate Degree Program: Biological chemistry (honours)

Extracurricular/Volunteer Activities

Please list only two extracurricular or volunteer activities.

Organization: Biological Chemistry Club

Title: Vice President

Duties (250 character maximum) In this club, I helped to connect students with different services on campus (such as our mentoring program for new students). I also helped to plan and execute events throughout the year. This was a great leadership opportunity for me to learn about organizational skills.

Organization: Intramural Soccer

Title: Captain

Duties (250 character maximum) As captain, it was my duty to ensure that enough players came out to each game so that we could play, to submit defaults when we could not play, and to ensure fair play. Our team made it to the playoffs.

Disclaimer and Signature

I certify that my answers are true and complete to the best of my knowledge.

False or misleading information in this application may result in the exclusion of my application.

Signature: T. Henderson Date: September 29th, 2017



My name is Taylor and I am honoured to be applying for admission to medical school. My family and I have lived in the Winnipeg area for generations, since my great-great grandfather came from Europe. I hope to become a pediatrician, and will specialize in neurological disorders in children.

Appendix D: Admission Question

We are now going to ask you a series of questions about Taylor. This study is on first impressions, and research indicates that people create a lasting first impression very quickly after encountering someone. It may seem odd to answer these questions having only reviewed an application, but try to trust your immediate feelings and report those.

1. Based on your assessment of Taylor's application, please rate how much you agree or disagree with the following statement.

“Taylor should be admitted into the medical program.” Please select one answer.

Notes:

This question used a 1 (*strongly disagree*) to 7 (*strongly agree*) response format.

Appendix E: Feeling Thermometer

Remember: This study is on first impressions, and research indicates that people create a lasting first impression very quickly after encountering someone. It may seem odd to answer these questions having only reviewed an application, but try to trust your immediate feelings and report those.

Using the scale below from 0 to 100, please tell us how you feel about Taylor. As you do this task, think of an imaginary thermometer. The warmer or more favorable you feel towards Taylor, the higher the number you should give him. The colder or less favorable you feel, the lower the number. If you feel neither warm nor cold towards Taylor, rate him 50. When you click on the white bar below, a blue dot will appear that you can move across the bar.



Appendix F: Trait Ratings

Remember: This study is on first impressions, and research indicates that people create a lasting first impression very quickly after encountering someone. It may seem odd to answer these questions having only reviewed an application, but try to trust your immediate feelings and report those.

We are now going to ask you to rate Taylor on a series of social traits. Please be honest. Please select one answer per question.

1. Honesty is one of Taylor's strengths.
2. Kindness is one of Taylor's strengths.
3. Taylor is lazy.
4. Taylor is intelligent.
5. Taylor acts entitled.
6. Many students drink alcohol during their undergraduate degree. How often do you think Taylor drinks alcohol?
7. How positive or negative is your attitude towards Taylor?
8. Should Taylor be accepted into medical school?
9. Why [shouldn't/should] Taylor be accepted into medical school? Please think about the characteristics that make him a [poor/good] candidate. This is a very important question, so please answer honestly.

Notes:

Questions 1-5 and 7 used a 1 (*strongly disagree*) to 7 (*strongly agree*) response format.

Question 6 used the following response format: 1 (*daily*), 2 (*weekly*), 3 (*once every two weeks*), 4 (*monthly*), 5 (*once every 6 months*), 6 (*once a year*), 7 (*never*).

Question 8 used a on a yes/no response format.

Appendix G: Scholarship Questions

Remember: This study is on first impressions, and research indicates that people create a lasting first impression very quickly after encountering someone. It may seem odd to answer these questions having only reviewed an application, but try to trust your immediate feelings and report those.

We are now going to ask you some questions about funding for Taylor.

Some universities offer scholarships specifically for [ethnic minorities/exceptional students]. In these cases, exceptional [ethnic minorities/students] may qualify for a [minority] scholarship to subsidize the cost of tuition, books, and living expenses.

Please rate the extent to which you agree or disagree with the following statements. Please select one answer per question.

1. I believe Taylor should be awarded a selective scholarship for [minority/exceptional] students.
2. I am extremely confident that Taylor deserves a [minority scholarship/scholarship for exceptional students].
3. If I only had one [minority scholarship/scholarship for exceptional students] to give, Taylor would be my first choice for the minority scholarship.
4. Tuition, fees, and living expenses for Taylor at his medical school of choice is approximately \$25,000 annually. How much money would you give to Taylor for one year, in the form of [an ethnic minority scholarship/a scholarship for exceptional students]? *Please select one answer.*
 - \$0-4,999
 - \$5,000-9,999
 - \$10,000-14,999
 - \$15,000-19,999
 - \$20,000-24,999
 - \$25,000-29,999
 - \$30,000+

Notes:

Questions 1-3 used a 1 (*strongly disagree*) to 7 (*strongly agree*) response format.

Appendix H: Social Desirability Scale Examples

Below you will find a list of statements. Please read each statement carefully and decide if that statement describes you or not. If it describes you, select the word “true” if not, select the word “false.” *Please select one answer per question.*

1. I sometimes litter.*
2. I always admit my mistakes openly and face the potentially negative consequences.
3. In traffic I am always polite and considerate of others.

Notes:

Questions used a yes/no response format.

Scoring is reversed for starred (*) items.

Only three example items are given.

Appendix I: Modern Prejudiced Attitudes Toward Aboriginals Scale (M-PATAS)

Please rate the extent to which you agree or disagree with the following statements. *Please select one answer per question.*

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:

Questions used a 1 (*strongly disagree*) to 7 (*strongly agree*) response format.

Scoring is reversed for starred (*) items.

Written permission to reprint the M-PATAS in full was obtained from the lead author on the original publication of this scale, Dr. Melanie Morrison.

Appendix J: Indigenous Appearance

We are now going to ask you some more questions about yourself.

1. Please rate how much you agree or disagree with the following statement: “I am confident that I appear Indigenous to other people.”
2. Do you ever attend events that focus on Indigenous culture and/or community? E.g., powwows, Indigenous forums, round dances, etc.
3. At these events, did you ever think others assumed you were White, due to your appearance?
4. At these events, how often did you think others assumed you were a White person?
5. At times when you have discussed ethnicity with other people, have people ever expressed disbelief in your Indigenous identity, based on how you look? For example, said “You don’t look Indigenous!”
6. When you are discussing your ethnicity with other people, how often have people expressed disbelief in your Indigenous identity based on how you look?

Notes:

Question one used a 1 (*strongly disagree*) to 7 (*strongly agree*) response format.

Questions 2-3 used a yes/no response format.

Questions 4 and 6 used a 1 (*never*) to 5 (*all the time*) response format.

Question 5 used a yes/no/unsure response format.

Appendix K: Funnel Questions

This is the final set of questions for this study. We are going to ask you a few questions about the portion of the survey that you have just completed.

1. What did you think this study was about?
2. What do you think the researchers are specifically looking for?
3. Do you think the researchers expected you to rate Taylor in a specific way? If so, why did you think that?
4. During this study, after viewing Taylor's medical school application, did you have any suspicions? If so, what were they?
5. In this study we expected White participants to rate Taylor Âsinawâsis better than a White candidate. Did you suspect this?
6. Were you suspicious when the photograph of Taylor Âsinawâsis did not appear Indigenous?
7. Taylor Âsinawâsis identified as Indigenous, but his photograph was of a White person. In this study, we were interested in how this mismatch between physical appearance and ethnic identity may have impacted ratings of the candidate. Did you suspect this?

Notes:

Questions 1-6 used an open-ended response format.

Question 7 used a yes/no response format.

Appendix L: Consent Form

First Impressions and Medical School Consent Form


You are invited to participate in a research study entitled: First Impressions and Medical School Applications. At the end of the study, you will receive Sona credit, or be eligible to enter your contact information into a draw for:

- **One of six \$50 cash prizes**

Researcher: Iloradanon Efimoff, Graduate Student, Psychology, University of Saskatchewan, iloradanon.efimoff@usask.ca

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

Purpose of the Research: The purpose of this research is to understand the impact of individual characteristics on admissions into an elite academic program – medical school.

Compensation: [Individuals participating through SONA will receive applicable course credit (1% credit towards your final mark in 1st or 2nd year psychology courses).] OR [Individuals participating through the PAWS system or online advertisements will be entered into a draw to win 1 of 6 \$50.00 prizes. Information about the prize draw appears at the end of the study. For those wishing to enter the draw, you will be asked to provide your email address, and a list of emails for all participants interested in entering the draw will be created. Although we will have access to the list of email addresses provided in order to contact the prize draw winners, your email address will remain confidential and not be linked in any way to the responses you provide.] For anyone wishing to exit the survey early for any reason, you may do so. If you click the exit button () you will be taken to a new screen where you will receive our study debriefing sheet. If you click the "x" in the top right corner of the browser, you will not be redirected to the debriefing form or [the Sona form] OR [the prize draw].

Procedures: Participants will be asked to view information about a candidate for a medical program, and then answer a series of questions about the candidate. You will also be asked to provide demographic information (such as your age, gender, etc.) and some other measures. There are a few basic questions that are mandatory for the study design. These questions must be answered, but are not expected to cause anyone any type of discomfort. Beyond these, you do not have to answer any questions that make you feel uncomfortable, but, please be as honest as possible. We expect the study to take less than 30 minutes to complete. Please feel free to ask any questions regarding the procedures and goals of the study or your role.

Funded by: The current research is unfunded.

Potential Risks: There are no known or anticipated risks to you by participating in this research. You are free to not answer any questions, and can exit the browser at any time – there is no penalty if you choose to withdraw from the study. If you have any concerns or questions, please contact the researcher or supervisor with the information above.

If any part of your participation in this study has made you feel uncomfortable, distressed, or upset, we encourage you to contact the U of S Student Wellness Centre: 306-966-5768, student.wellness@usask.ca, room 310, Place Riel Student Centre.

Potential Benefits: Participation will help researchers to better understand the importance of individual characteristics in the application process to medical programs. You will also gain experience with psychological research.

Confidentiality: Your data will be kept completely anonymous, no identifying information will be connected with your data, and results will only be shared in aggregate form. The data from this research project may be published and presented at conferences, or shared with interested organizations. No personally-identifying information will be linked to your data. Data will be collected using Voxco, a Canadian survey software. Data will be stored on Canadian servers and subject to Canadian laws and regulations.

Right to Withdraw: Your participation is voluntary and you can answer only those questions that you are comfortable with. You may withdraw from the research project for any reason, at any time without explanation or penalty of any sort. Withdrawal will not negatively impact your academic standing in any way. For those completing the study, you will be thanked for your participation. Below this, you will see a submit section that will explain clicking the "next" button will result in having your data included in our study. If you click "next" at this point, you will be taken to the study debriefing sheet. If you wish to have your data removed after reading the debriefing sheet, you may select the option "I wish to withdraw my data from this study." We will only use data from those participants who click "submit" and, after reading the debriefing sheet, indicate that they do not want their data removed (i.e., they do not select the "I wish to withdraw my data from this study" option). This ensures that we are providing you with the opportunity to participate, have your data stored, and, upon reading the debriefing sheet, re-consent to having your data actually included in the study. For anyone wishing to exit the survey early, you will have the same opportunity to enter the draw, and be debriefed at that time.

Follow up: To obtain results from the study, please contact Iloradanon Efimoff (iloradanon.efimoff@usask.ca) or Dr. Melanie Morrison (melanie.morrison@usask.ca).

Questions or Concerns: If you have any questions regarding the study, please feel free to contact the researchers at the emails or numbers provided above. This research project has been approved on ethical grounds by the University of Saskatchewan Research Ethics Board on March 23rd, 2018. Any questions regarding your rights as a participant may be addressed to that committee through the Research Ethics Office ethics.office@usask.ca (306) 966-2975. Out of town participants may call toll free (888) 966-2975.

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

Appendix M: Debriefing Form

After you click "submit" at the bottom of this page, you will be redirected to a separate page to collect your information [for your Sona credit/for the Prize Draw]. Please read this debriefing form.

Thank you again for participating in our study! We very much appreciate your time and cooperation. The purpose of this study was to measure how ethnicity and physical appearance combine to impact attitudes towards individuals applying to medical schools.

In the study, participants were randomly assigned to view one of three fictional medical school applicants. The ethnicity and photograph of the candidate was altered to result in three conditions: an Indigenous candidate, a White-Passing Indigenous candidate (an individual whose photograph appeared White but ethnic information indicated Indigenous identity), and a White candidate. All participants then rated the candidate on their admissibility, rated their feelings towards the candidate, and provided ratings of the candidate on several positive and negative social traits, as well as basic demographic information. Participants also completed a measure to assess how honest individuals are. Non-Indigenous participants were presented with a modern prejudice towards Indigenous individuals scale to assess subtle bias toward persons of Indigenous descent. We are interested in how ethnicity and physical appearance combine to impact ratings of candidates for elite programs. All characters were fictional, and this project has no affiliation with any medical school at any university.

Some participants completed a scale designed to assess individuals' subtle prejudices towards Indigenous peoples. It is important to assess bias towards Indigenous peoples in order to understand the effectiveness of interventions. It is also important for us to state that this measure was based on stereotypes, not on facts. The stereotypes that form the basis of this scale are incorrect. For example, Indigenous people do not all attend post-secondary school for free, and most Indigenous people pay taxes. You can click [here](#) and [here](#) for more information.

We predict that non-Indigenous participants would rate Indigenous candidates in the study as more worthy of medical school admission. We predict that some Indigenous participants will rate White candidates as more worthy of admission, and some will rate Indigenous candidates as more worthy of admission.

This research has important implications going forward. Indigenous people in Canada face prejudice and discrimination that ultimately undermines quality of life. Understanding the nature of people's attitudes in this area is, therefore, desirable.

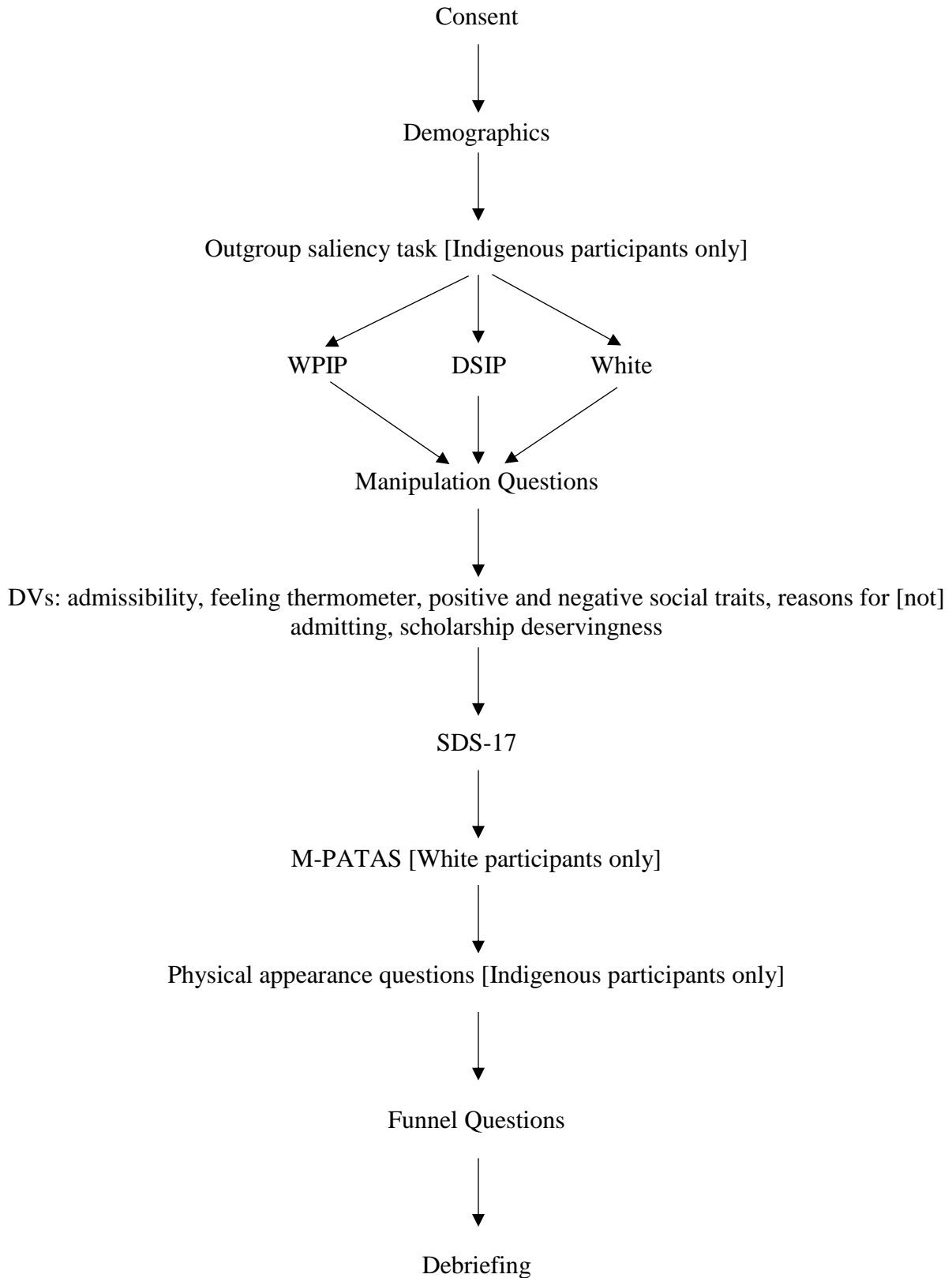
If you would like to know the results of the study, please contact the researchers for a summary. We ask all participants to please refrain from discussing the study's details with other possible participants until after the end of the study period (May 2018).

If you have any questions at all, please feel free to contact the student researcher, Iloradanon Efimoff (iloradanon.efimoff@usask.ca). You can also contact the faculty supervisor, Dr. Melanie Morrison (melanie.morrison@usask.ca, 306-966-2564).

If any part of your participation in this study has made you feel uncomfortable, distressed, or upset, we encourage you to contact the U of S Student Wellness Centre: 306-966-5768, student.wellness@usask.ca, room 310, Place Riel Student Centre

Thank you again for participating in this research project. Without your help, this wouldn't have been possible.

Appendix N: Procedural Flowchart



Appendix O: Statistical Assumptions

All assumptions were checked after removing participants who indicated they wished to have their data removed and participants who were not Indigenous or White.

Exploratory Factor Analysis

For the EFA, Principle Axis Factoring (PAF) was used instead of Maximum Likelihood, as PAF is robust to violations of normality. According to Flora and Flake (2017), it is appropriate to use EFA for ordinal variables, as long as procedures for nonnormality are adhered to.

Correlation Assumptions

The assumptions for a correlation are that X and Y are normally distributed, that observations are independent, that the relationship is linear, and that each variable at each other variable is equally distributed, or, homoscedastic (Aron et al., 2013). According to Edgell and Noon (1984), the t-test to assess the significance of correlations is very robust to deviations from normality, so the skewed variables should not be problematic. The observations were independent, and upon inspection of scatter plots, relationships appear to be linear (not curvilinear). Upon visual inspection of a scatterplot matrix in SPSS, only minor heteroscedasticity was observed in a few variables. Osborne and Waters (2002) indicate that slight heteroscedasticity is not problematic. Finally, given the impact of outliers on Pearson's r (Zakaria, Abdullah, Ahad, Yusof, & Yahaya, 2016), analyses were completed without outliers.

t-test Assumptions

The assumptions of the t-test are normality, homogeneity of variance, and independence of observations. Data were somewhat skewed (as some variables had skewness statistics that was >1 ; Table O.1). In cases where the assumption of homogeneity of variance was violated (as indicated by a significant value of Levene's test), the Satterthwaite corrected values were used. A random subsample of White participants was used for analyses because t holds up well to violations of the assumption of variance, particularly when there are equal sample sizes (Aron et al., 2013). Observations were independent.

Table O.1

Skewness of all dependent variables (N=242)

Measure	Skewness Statistic	Standard Error
M-PATAS	0.40	.22
SDS-17	0.14	.16
Admission	-2.08	.16
Feeling thermometer	-1.59	.16
Alcohol ^a	-0.70	.16
Attitude	-1.21	.16
Traits	-0.85	.16
Scholarship	-0.40	.16

Chi-Square Assumptions

All observations were independent.

Multiple Regression Assumptions

The variables were suitable for multiple regression, as the dependent variables were continuous and the independent variables were continuous and categorical. Assumptions of normal distribution, independent observations, linear relationship, and equal distributions were

satisfied in the assessment of correlation assumptions. Outliers were treated the same as with correlations. Multicollinearity was not observed, as White-presentingness and condition were not significantly correlated, $r(114) = -0.01, p = 0.900$.

Logistic Regression Assumptions

The dependent variable was dichotomous with mutually exhaustive response options, there were two independent variables (continuous and categorical), and all observations were independent.

F-test Assumptions

Next, assumptions for a two-way ANOVA (normality, homogeneity of variance, independence of observations) were assessed. Data were somewhat skewed (as some variables had skewness statistics that was >1 ; Table O.2), and variances by condition were unequal for some of the variables (Table O.2). According to Aron et al. (2013), the F test is robust to violations of normality, and is robust to violations of homogeneity of variance, in particular with equal sample sizes. This was further rationale to randomly remove White participants to ensure equal sample sizes. All observations were independent.

Table O.2

Variable diagnostics (N = 242)

Condition 1: WPIP							
	<u>M</u>	<u>SD</u>	<u>Variance</u>	<u>Skewness</u>		<u>Kurtosis</u>	
			<u>Statistic</u>	<u>Statistic</u>	<u>SE</u>	<u>Statistic</u>	<u>SE</u>
M-PATAS	44.11	16.23	263.52	0.05	0.40	-1.18	0.78
SDS-17	7.67	3.24	10.48	0.04	0.28	0.40	0.56
Admission	6.15	1.23	1.50	-2.65	0.28	8.24	0.56
Feeling thermometer	80.94	16.57	274.66	-1.90	0.29	4.90	0.57
Alcohol ^a	4.00	1.36	1.86	-0.49	0.28	-0.06	0.56
Attitude	5.79	0.79	0.62	-1.04	0.28	1.94	0.56
Traits	5.69	0.66	0.44	-0.66	0.28	0.21	0.56
Scholarship	4.70	1.15	1.32	-0.51	0.28	0.29	0.56
Condition 2: DSIP							
M-PATAS	48.24	18.72	350.61	0.25	0.34	-0.59	0.67
SDS-17	7.68	3.15	9.91	0.19	0.25	-0.48	0.50
Admission	6.30	1.02	1.04	-3.48	0.25	15.76	0.50
Feeling thermometer	87.67	9.96	99.20	-0.89	0.25	0.49	0.50
Alcohol ^a	4.11	1.40	1.97	-0.74	0.25	0.08	0.50
Attitude	6.10	0.68	0.47	-0.77	0.25	1.51	0.50
Traits	5.99	0.56	0.32	-0.53	0.25	0.78	0.50
Scholarship	5.03	1.08	1.17	-0.39	0.25	0.08	0.50
Condition 3: White							
M-PATAS	42.86	20.18	407.09	0.81	0.39	0.12	0.77
SDS-17	7.53	3.02	9.15	0.19	0.27	-0.42	0.53
Admission	5.43	1.19	1.43	-1.22	0.27	1.42	0.53
Feeling thermometer	69.13	20.66	426.84	-0.99	0.28	1.22	0.54
Alcohol ^a	4.77	1.26	1.59	-0.97	0.27	0.97	0.53
Attitude	4.95	1.21	1.46	-0.71	0.27	-0.02	0.53
Traits	4.98	0.87	0.75	-0.52	0.27	0.07	0.53
Scholarship	3.23	1.36	1.86	0.31	0.27	-0.71	0.53

Notes. M = Mean. SD = Standard Deviation. SE = Standard Error. a = reverse coded.

Wilson VanVoorhis and Morgan (2007) suggest having at least 30 participants per cell to ensure adequate power for ANOVA analysis. We ensured this was the case, and there were 37 Indigenous participants and 35 White participants in condition 1 (WPIP); 42 Indigenous participants and 49 White participants in condition 2 (DSIP); 42 Indigenous participants and 37 White participant in condition 3 (White).

Appendix P: Composite Scores

Table P.1

Correlations between trait ratings

	1	2	3	4	5
1. Honesty					
2. Kindness	.61**				
3. Laziness	-.39**	-.571**			
4. Intelligence	.38**	.384**	-.473**		
5. Entitlement	-.40**	-.477**	.510**	-.377**	

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

Table P.2

Correlations among scholarship questions

	1	2	3	4
1. Scholarship 1				
2. Scholarship 2	.88**			
3. Scholarship 3	.68**	.78**		
4. Scholarship 4	.50**	.57**	.55**	

** Correlation is significant at the 0.01 level (2-tailed)

Table P.3

EFA factor loadings for trait and scholarship questions

Trait Questions		Scholarship Questions	
Factor	Loading	Factor	Loading
Honesty	.66	Scholarship 1	.87
Kindness	.79	Scholarship 2	.98
Intelligence	.57	Scholarship 3	.82
Laziness	.73	Scholarship 4	.61
Entitlement	.65		

Notes. For the EFA, all diagnostics were within the appropriate range. Trait Questions: Determinant = 0.20; KMO = 0.79; IMSAs = 0.75-0.86; 40% of residuals greater than 0.05. Scree plot and parallel analysis confirmed a one-factor solution. 56.88% of the common variance was accounted for by first factor. Scholarship questions: Determinant = 0.06; KMO = 0.77; IMSA = 0.68-0.92; 16% of residuals greater than 0.05. Scree plot and parallel analysis confirmed a one-factor solution. 75.12% of the common variance was accounted for by first factor.