Parasocial and parasocial vicarious contact effects on Euro Canadians' views of Aboriginal Peoples

by

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Abstract

Research on indirect contact suggests that actual contact with a group may not be necessary to promote positive intergroup attitudes. The ingroup, or group with which one identifies, may have more favourable attitudes toward the outgroup, other group, after indirect contact. The current study examined a video intervention that consisted of a control video (no actors), parasocial video (ingroup and outgroup actor always separate), and parasocial vicarious video (ingroup and outgroup actor interacting). Dependent variables were outgroup attitudes and reported efficacy of future interactions with Aboriginal Peoples by Euro-Canadian participants. As predicted, compared to those who viewed the parasocial video, Euro-Canadian participants who viewed the parasocial vicarious video reported more warmth towards Aboriginal peoples. Additionally, compared to those who viewed the control video, Euro-Canadian participants who viewed the parasocial and parasocial vicarious videos desired less social distance from Aboriginal Peoples. Number of outgroup friendships, as well as quality of outgroup friendships, interact with video manipulation on outgroup attitudes. Results offer preliminary evidence for parasocial vicarious contact to influence positive intergroup attitudes. Further, the data suggest additional benefits of parasocial vicarious contact over and above parasocial contact for some groups.

Keywords

Intergroup relations, prejudice, cross-group friendship, media, intergroup contact (parasocial, vicarious), Aboriginal.
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Introduction

Intergroup relations have been the focus of social psychology research for decades. In particular, variables influencing prejudice and those that promote harmony have received much attention. Research has shown that individuals’ intergroup attitudes, beliefs and behaviors can be influenced by intergroup contact and can depend upon a variety of factors including previous experiences with the outgroup (Islam & Hewstone, 1993; Tausch, Hewstone, Kenworthy Cairns, & Christ, 2007), and type of contact with the outgroup (Dovidio, Eller, & Hewstone, 2011). The present study builds upon theory and research from intergroup contact, as well as more recent variations of indirect contact. I tested the differing effects of parasocial and vicarious video interventions on Euro-Canadian students’ outgroup attitudes toward Aboriginal Peoples. Vicarious contact involves watching an ingroup member interact with an outgroup member, whereas parasocial contact involves watching or interacting an outgroup member through media: radio, television, movies, or through the Internet. Both parasocial and vicarious conditions were operationalized through the medium of video, to determine the effects of the differential forms of contact on intergroup attitudes.

Intergroup Contact

Among many theories that aim to explain intergroup interactions, a predominant and long-standing theory of intergroup conflict, Realistic Conflict Theory (Sherif, 1966), indicates that when two groups are in competition for resources, prejudicial attitudes and behaviors are likely to be directed towards members belonging to the outgroup (other group, or the group with which the person does not identify). Conversely, Allport (1954) focused his attention on conditions that promote positive intergroup attitudes. Intergroup
Contact Theory (Allport, 1954) hypothesizes contact between groups can reduce prejudice by allowing the opportunity to get to know and appreciate outgroup members and providing information about the outgroup that can replace stereotypes. Optimal conditions for intergroup contact that may reduce prejudice include: equal status, pursuit of common goals, intergroup cooperation, and support by authorities (laws, institutions, and customs). Recently, Intergroup Contact Theory (Allport, 1954) has been supported through Pettigrew and Tropp’s (2006) meta-analysis of 515 studies, finding that intergroup contact, across a variety of groups and settings, will often reduce intergroup prejudice. Further, contact effects are often best when all four of Allport’s stated conditions are present during contact.

Although optimal intergroup interaction involves all four of Allports’ suggested conditions, real world direct interactions are rarely supported by all conditions in any given setting. Furthermore, due to geography, opportunities for real-world intergroup interactions, which could promote positive intergroup attitudes, are often scarce for people living in smaller communities with less diverse populations. Lack of opportunity for contact as well as the difficulty in realizing all four optimal conditions when intergroup contact does occur, has left researchers looking for other possibilities to improve intergroup contact through means other than face-to-face contact.

More recently, research has expanded on the Contact Hypothesis looking at the effects of various forms of indirect intergroup contact on intergroup attitudes, beliefs and behaviors. Indirect contact involves learning about an outgroup member without face-to-face contact with that group member and includes: imagined contact, extended contact, vicarious contact as well as parasocial contact. Imagined contact (Crisp & Turner, 2009)
occurs when an individual imagines an interaction with an outgroup member. Extended contact (Wright, Aron, McLaughlin-Volpe, & Ropp, 1997) is knowledge that a friend is friends with an outgroup member. Vicarious contact (Mazziotta, Mummendey, & Wright, 2011) is watching an ingroup member interact with an outgroup member and parasocial contact (Schiappa, Gregg, & Hewes, 2005; Ortiz & Harwood, 2007) is exposure to an outgroup member through media. Thus a growing body of research supports indirect forms of contact as means for influencing intergroup attitudes and behavior. In a review of the literature, Mutz and Goldman (2010) stated that television viewing, one form of indirect contact, is an important source of information about other social groups, leading to impressions an ingroup member may have of other social groups.

**Parasocial Contact Hypothesis**

Parasocial interaction is when an individual experiences another person through media experience (Horton & Wohl, 1956). This mediated exposure, allows an individual the opportunity to experience the media persona as they might in real face-to-face interactions (Horton & Wohl, 1956), which could lead to attitudes and beliefs about that persona. For example, although most individuals never had the opportunity for a face-to-face meeting with Nelson Mandela, many people have attitudes and beliefs about the man due to exposure through media; news reports, movies, and documentaries to name a few. Parasocial Contact Hypothesis (PCH) (Schiappa et. al., 2005), states that parasocial exposure can improve attitudes of the mediated characters. Schiappa et al., (2005) found support for PCH where participants reported lower levels of prejudice towards gay men, across two separate studies, after watching television programs with gay characters. In a third study, participants reported more favorable attitudes towards male transvestites after
watching an 80-minute stand-up comedy routine featuring a male transvestite, demonstrating the generalizability of the theory.

**Vicarious Contact**

Vicarious contact, a more recently developed area of indirect contact research, draws on Social-Cognitive Theory (Bandura, 1986; 2001) suggesting individuals can learn new behavior and values through watching others. Bandura states that through observation of models interacting with others, individuals have the opportunity to gain knowledge and understanding of behavioral interactions and their consequences, which can later be applied to similar circumstances. This symbolic learning provides opportunity to expand one’s repertoire of understanding intergroup behavior, even when direct face-to-face opportunity is not possible. Recent support for Social Cognitive Theory of Mass Communication (Bandura, 2001) has found, in some cases, watching an ingroup member successfully interact with an outgroup member, through video/television, can improve outgroup attitudes (Ortiz & Harwood, 2007; Mazziotta et al., 2011).

**Past Experiences (Quantity & Quality)**

As shown in the literature, predicting intergroup attitudes is complex and often depends on a wide variety of influences. A number of studies have shown that both the quantity (number of outgroup friendships, or number of outgroup exposures) and quality (degree of closeness to an outgroup member, or experience of contact situations) of friendship experiences matter.

**Quantity.** Correlational studies of intergroup attitudes have found that number of cross-group friendships is associated with more positive outgroup attitudes (Paolini,
Hewstone, Cairns, & Voci, 2004; Turner, Hewstone, Voci, & Vonofakou, 2008; Wright et al., 1997). The Parasocial Contact Hypothesis (Schiappa et. al., 2005), states that parasocial contact, a form of indirect contact, would be particularly influential in improving attitudes of group members who have limited interpersonal contact with the outgroup members depicted in the media.

In a study looking at quantity of cross-group friendships and indirect contact, Christ et al. (2010) found that German people with fewer opportunities for outgroup contact (those who reported few or no direct outgroup friendships), were associated with less outgroup prejudice when they indicated they had extended contact relationships (friends with outgroup friends). These results were supported with a second study in Northern Ireland, where those participants with no or few direct cross-group contacts living in segregated neighbourhoods, reported more positive behavioural intentions towards the outgroup when they had a high number of extended contacts, than those who had a large number of direct contacts. Together these studies show that one form of indirect contact; extended contact, is more likely to be influential among those individuals who have little direct cross-group contact. The current study will look at how quantity and quality of cross-group friendships interact with other parasocial and parasocial vicarious contact effects on outgroup attitudes.

**Quality.** Quality of cross-group relationships have yielded a hodge-podge of results likely as a result of being measured in a variety of ways: valence of contact experiences on polar scales (Islam & Hewstone, 1993; Tausch et al., 2007), inclusion of other in self (Haji & Lalonde, 2009), outgroup member named as one of five closest friends (Noguchi & Haji, 2014), outgroup members named among those with whom
important matters were discussed in last 6 months (Berg, 2009), as well a scale-rating of
closeness (Ortiz & Harwood, 2007; Harwood et al., 2005) to name a few. Berg (2009),
Harwood et al., (2005), and Ortiz & Harwood (2007) operationalized “quality” of
contact as the degree of closeness felt towards an outgroup member. All three found
degree of closeness to an outgroup member is related to attitudes towards the outgroup.
For each outgroup member named as a person with whom matters of importance were
discussed, Berg (2009) found that attitudes towards the outgroup improved two times.
Harwood et al., (2005) found those with close relationships with grandparents expressed
more positive attitudes towards older people and Ortiz and Harwood (2007) found those
with closer relationships with an outgroup member expressed less social distance and
anxiety towards the outgroup. Additionally, in a study of imagined contact effects,
Noguchi and Haji (2014) found close cross-group friendships to moderate the effect of
imagined contact on outgroup attitudes. The current study will explore quality of
outgroup contact, as an individual difference variable that may predict the effectiveness
of the video intervention in improving outgroup attitudes.

Self-Efficacy Expectancy

Self-efficacy expectancy is the belief in oneself to have positive, successful
outcomes in the future. Along with knowledge and skills, successful outcomes are
influenced by the belief in one’s abilities, which in turn influences motivation and
behavior (Bandura, 1997). In fact, Strecher, DeVillis, Becker, and Rosenstock (1986), in
a review of over 20 health-behavior related studies (cigarette smoking, contraceptive use,
exercise and alcohol abuse, and weight loss) indicate that self-efficacy is a predictor of
short and long-term success in behavior change for both long and short-term outcomes.
Self-efficacy expectancy influences both behaviour as well as attitudes. A variety of studies (Seydal, Taal, & Wiegman, 1990; Meyerowitz & Chaiken, 1987; Sitharthan & Kavanagh, 1990) have shown perceived self-efficacy expectancy to be predictive of therapeutic change across a variety of settings. Further, Mazziotta et al., (2011) found self-efficacy expectancy to mediate favorable attitudes for an outgroup after vicarious contact. Self-efficacy expectancy has been shown to be experimentally manipulated across a variety of studies (Bouffard-Bouchard, 1990; Meyerowitz & Chaiken, 1987; Strecher et al., 1986). Noting the importance of self-efficacy expectancy to influence our beliefs and actions, as well as understanding that under some conditions self-efficacy expectancy can be manipulated, the present study will investigate how indirect contact experiences may influence self-efficacy expectancy.

**Historical and Locational Context of Euro-Canadians & Aboriginal Peoples**

Over the years, terminology referring to Indigenous Peoples of Canada has changed, particularly as some terminology was imposed by colonizers and may represent damaging power imbalance and histories (University of British Columbia, 2009). For example the term First Nations replaced the term Indian, and Inuit replaced the term Eskimo. The Constitution Act of 1982 used the term Aboriginal peoples to include Indian, Inuit and Métis peoples of Canada (Constitution Act, 1982, s 35 (2)), referring to the first inhabitants of Canada. Similarly, The Royal Commission of Aboriginal Peoples (RCAP; Indian and Northern Affairs Canada [INAC], 1996) uses the term Aboriginal peoples to refer in a general manner to Inuit, First Nations, and Metis people. Although the RCAP recognizes there are separate origins, identities, political, and cultural entities; all stem historically from the original peoples of North America and share a common
experience or shared history with Euro-Canadian colonizers involving four stages: pre-contact, contact and co-operation, displacement and assimilation, and negotiation and renewal (INAC, 1996). Consistent with the RCAP (INAC, 1996) and The Constitution Act of 1982, I will use the term Aboriginal Peoples to refer to Inuit, First Nations, and Metis people throughout the historical review.

In Canada, there are a variety of reasons for which examining Euro-Canadian-Aboriginal intergroup relations, as well as possible interventions to improve these relations, are important. Reflecting on historical events as well as current issues will provide context from which we can better understand the relationship between Aboriginal and Euro-Canadian Peoples. Although Aboriginal Euro-Canadian histories have, at times, included positive relations characterized by cooperation, sharing, peace, friendship and mutual respect, histories have also been characterized by inequality, coercion, stereotypes, and paternalism, which over time have served Euro-Canadian interests at the expense of Aboriginal peoples (INAC, 1996). This changing relationship and factors influencing this relationship have shaped current attitudes and practices (INAC, 1996).

Aboriginal Peoples, the earliest inhabitants of Canada, were sole occupants of the land for thousands of years (Canadian Museum of History, n.d.) before Europeans began to establish settlements about 500 years ago (INAC, 1996). Aboriginal Peoples comprise a large percentage (4.3%) of the Canadian population, and are the fastest growing population in Canada (20.1 % increase from 2006 – 2011; Statistics Canada, 2013). Despite this well-established history and presence in Canada, Aboriginal Peoples have experienced systematic discrimination for centuries resulting in present-day social dysfunction reaching crisis levels (Taylor & Sablonniere, 2007). A recent Canadian
survey on race relations validates the importance of the current research from an Aboriginal perspective, finding Aboriginal Canadians were most concerned with intergroup relations between Aboriginals and non-Aboriginals, and that 65% Aboriginal Canadians and 49% of all Canadians are worried about the anti-Aboriginal sentiment in Canada (Canadian Race Relations Foundation, 2014). A historical review of Euro-Canadian-Aboriginal relations (INAC, 1996), as well as a review of recent Aboriginal issues, suggests that Canadians have an obligation to understand and look for ways to improve Euro-Canadian-Aboriginal relations.

A synopsis of Euro-Canadian-Aboriginal relations from a historical perspective demonstrates past, as well as ongoing, exploitation and discrimination endured by Aboriginal peoples. Prior to European settlements in Canada, Aboriginal Peoples lived for thousands of years by living in close harmony with the environment (INAC, 1996). In the 1500’s Europeans, attracted to the new world for its resources, set up a trade system with the Aboriginal Peoples exchanging technologies and material goods for fish and furs (INAC, 1996). European settlers relied on Aboriginal peoples for practical knowledge of how to survive in these lands (INAC, 1996). Soon after, competition for land and resources among the European countries led to alliances with Aboriginal Peoples in order to establish trade routes and set up supply posts deep into the new world to secure European business and commercial interests (Aboriginal Affairs and Northern Development, 2013). As competition for resources and control of the lands intensified, conflict between British and French escalated into violence and military battles. Previously established European-Aboriginal commercial alliances became military partnerships, where the Europeans relied on Aboriginal Peoples for military support
When British-French conflict in Canada ended in 1760, the victorious British recognized the importance of determining peaceful relations with Aboriginal Peoples as Aboriginal Peoples outnumbered the British, who were spread thinly throughout the vast new land. At this point, the relationship between the British and Aboriginal Peoples became more formal. The British formed an Indian Department that would work to nurture military and Aboriginal relationships in order to secure their own land interests in the sparsely populated land and a formal agreement was composed to ensure amicable relations with Aboriginal Peoples (Aboriginal Affairs and Northern Development, 2013).

After the British took New France in 1763, the British were faced with the fear that war with Aboriginal peoples might break out (INAC, 1996). In an effort to appease Aboriginal Peoples, the British government issued The Royal Proclamation of 1763, which would clarify British policy with Aboriginal Peoples (INAC, 1996), and reserved to them their territories (INAC, 1996). However, the Proclamation asserted Crown control of lands recognized as Aboriginal property, by indicating these lands could only be sold or transferred to the Crown, as the King claimed dominion over the North American territories (Hall, 2006). The Royal Proclamation further indicated Indian Nations and tribes were not recognized as Independent but now fell under Crown protection, framing Aboriginal peoples as dependents (Hall, 2006).

Over time, a variety of factors lead to a shift in the relationship between European colonists and Aboriginal Peoples (INAC, 1996). Aboriginal Peoples, who were once needed by the European colonists for their knowledge, economic, military contributions, were increasingly viewed as impediments to development (INAC, 1996). First, the
European population in Canada was growing rapidly in the 1700’s due to large numbers of immigrants. Where once the Aboriginal population outnumbered the colonists, the European population now outnumbered the Aboriginal population (INAC, 1996). The population influx led to increasing land pressures for settlers, which were held by Aboriginal Peoples (INAC, 1996). Additionally, the growing colonist population meant colonists no longer relied on Aboriginal Peoples to protect their military interests (INAC, 1996). Also, a declining fur trade in the east (INAC, 1996), combined with now well-established routes of trade to the west (Aboriginal Affairs and Northern Development, 2013), meant the colonists no longer relied on Aboriginal Peoples to ensure their commercial interests. This shift in population meant a shift in the way Aboriginal Peoples were viewed by the government, as they were no longer needed to protect colonists’ interests (INAC, 1996). Now, Aboriginal Peoples were considered more of an obstacle to growth as their status shifted from allies to dependents by the government (INAC, 1996).

Future government policy was designed to attempt to civilize and assimilate Aboriginal Peoples (INAC, 1996). The Indian Acts of 1876 and 1880 and the Indian Advancement Act of 1884 provided the Federal Department of Indian Affairs with more powers in Aboriginal affairs (INAC, 1996). Despite the suggestion that the government was acting as a guardian, protecting and caring for its dependents; Aboriginal Peoples (Aboriginal Affairs and Northern Development, 2013), these Acts provided the federal government with the power to control all aspects of life on the reservations (INAC, 1996). The Indian Act discriminated and oppressed Aboriginal Peoples by banning cultural practices and ceremonies, as well as traditional dances and costumes which interrupted passing down oral history and values (INAC, 1996). It also forced compulsory status change for some
Aboriginal people to Canadian, with no regard for the individual’s wishes (INAC, 1996). Further the Act eroded the reserve land base by changing the status of reserve lands to provincial lands upon status change of an Aboriginal person (INAC, 1996). Residential schools, established in the early 1800’s continuing on until the 1970’s, further attempted to assimilate and civilize Aboriginal Peoples (Castellano, Archibald, & Desganes, 2008). Aboriginal children removed from their homes and parents, were placed in overcrowded residential schools where poor nutrition was provided (Historica Canada, 2012). Euro-Canadian and Christian ways of living were indoctrinated and expressions of Aboriginal language, spirituality, and ways of life were punished (Castellano et al., 2008).

Aboriginal Peoples’ experience and treatment in Canada have ironically been in direct opposition to Allport’s four conditions for positive intergroup relations: equal status, common goals, intergroup cooperation, and support of authorities, law or customs (Allport, 1954).

More recently, there is growing national awareness of Aboriginal issues and a growing demand for reconciliation of Aboriginal issues resultant of past treatment. Aboriginal rights movements have been gaining momentum and government response for past wrongs have brought Aboriginal issues into everyday news headlines, compelling an understanding of intergroup attitudes as well as media effects on attitudes. Some of the meaningful initiatives bringing Aboriginal issues to Canadian attention: The Indian Residential School Settlement Agreement, which was implemented in 2007, offered acknowledgement and compensation for those who suffered the experience of residential schools. Additionally, in 2008, Prime Minister Harper offered a full and official apology on behalf of Canadians for the Indian Residential Schools system (Aboriginal Affairs and
Northern Development, 2008). Further in 2008, the Truth and Reconciliation Commission of Canada was created to learn, document, and inform Canadians as to the government-funded, church-run residential schools for Aboriginal people that were established in an attempt to assimilate Aboriginal peoples through loss of parental involvement, loss of language, and loss of cultural and spiritual ways of being (Commission of Canada, n.d.). Additionally, The Idle No More movement, which began in December 2012 when four women held a teach-in in Saskatoon in response to, and to protest, Bill C-45 (CTV Saskatoon, 2013), has been working to fulfill Indigenous rights and environmental protection (Socialist Worker, 2014). These relate to the ongoing grievances over comprehensive (land title, fishing and trapping rights and financial compensation) and specific claims (Canada’s misuse of First Nation assets and funds; Aboriginal Affairs and Northern Development, 2010). The Idle No More movement has grown from a movement of the grassroots people (IdleNoMore, 2013) led by Indigenous women to one that is supported by Indigenous organizations across Canada as well as overseas (Woo, 2013). Most recently, in relation to The Sisters in Spirit initiative established in 2005, which calls on research and awareness of the disproportionate violence towards Aboriginal women in Canada (Sisters in Spirit, n.d.), there has been increasing pressure for an public inquiry into the numerous unsolved homicides and missing Aboriginal women, since the death of a 15-year old Aboriginal girl (Walker, 2014).

In addition to the historical and contextual importance of intergroup relations between these groups, recent research provides an impetus for interventions aimed at improving intergroup attitudes of Euro-Canadian and Aboriginal Peoples. A qualitative study
looking at ongoing colonial violence in post-secondary settings found frequent and ongoing racism as experienced by Aboriginal students (Cote-Meek, 2010).

Laurentian University, the context for the present research, provides a unique setting to investigate intergroup contact of Aboriginal and Euro-Canadian students. The setting fulfills all four conditions for optimal contact (Allport, 1954) and includes an Aboriginal population comprised of 11% of the student population. Laurentian operates under a bilingual and tri-cultural mandate, where specific initiatives are underway to increase Aboriginal faculty, Aboriginal student enrollment, and Aboriginal course content. These as well as numerous other initiatives at Laurentian provide explicit institutional support for Aboriginal Peoples at Laurentian. The tri-cultural mandate at Laurentian University provides multiple reminders of intergroup relations of Aboriginal and Euro-Canadian students, from physical spaces for Aboriginal students, lecture series on Indigenous Ways of Knowing in which the whole student body is invited, as well the President includes salutations and closings in all three languages (English, French, and Ojibwe) in institutional correspondence and assemblies. These reminders increase the salience of Aboriginal Peoples on campus and in the minds of the students.

The Present Research

The current study looked at possible effects of video interventions on attitudes of Euro-Canadian students towards an Aboriginal Peoples. First, students viewed one of three videos: parasocial vicarious (Euro-Canadian and Aboriginal actors together interacting), parasocial (Euro-Canadian and Aboriginal actors separately represented) or control (no actors with a voice-over). Next, participants were asked to respond to questions regarding warmth and social distance towards Aboriginal Peoples as well as self-efficacy for future
interactions with an Aboriginal person. Previous experiences with Aboriginal people, both in terms of quantity (number of close outgroup friendships) and quality (degree of closeness with an Aboriginal person) were run as individual difference variables on outgroup attitudes. Additionally, as data were collected from two different cities, exploratory analysis was run for location of studies (Sudbury or Barrie) as an individual difference variable on outgroup attitudes.

To the author’s knowledge, no previous study has looked at possible differences of parasocial contact compared to parasocial vicarious contact; both are likely candidates for an institutional or a nationwide video campaign aimed at improving intergroup attitudes. Further, no study has looked at the effect of indirect contact on attitudes of Euro-Canadian participants towards Aboriginal Peoples.

**Hypotheses**

1a. Participants viewing the video intervention (parasocial and parasocial vicarious) will express more favorable attitudes towards the outgroup (Aboriginal Peoples).

1b. The parasocial vicarious video will elicit more favorable attitudes towards the outgroup (Aboriginal Peoples) than the parasocial video.

2. Past outgroup experiences; both in terms of quantity (number of close Aboriginal friends) and quality (degree of closeness with an Aboriginal person), will act as an individual difference variable on outgroup attitudes and self-efficacy for future interactions with Aboriginal People across the video manipulations.
Method

Participants

Undergraduate students from Laurentian University participated in the study ($N = 179$). Students were recruited from four locations: Sudbury campus ($n = 83$), Barrie campus ($n = 68$), Orillia campus ($n = 3$), and from Distance Education ($n = 1$). A number of participants ($n = 24$) did not complete the study. Target population for this study was Euro-Canadian students who watched the video manipulation, therefore only those participants who self-identified or self-categorized as Euro-Canadian Peoples, who watched the video presented in its entirety, were retained for statistical analysis ($n = 90$). Euro-Canadian population was determined through two means. First, participants responded to a question at the beginning of the survey, in which participants were asked to self-identify to which ethnic group they most identify by typing the name of the group in the empty space. No prompts or lists were provided. Second, at the end of the survey, self-categorization involved responding to a series of questions taken from the National Household Survey 2011. Participants were asked to “indicate the ethnic group (or groups) with which you identify. You may choose more than one option” and were then provided with a list including the option of “other – specify” (Appendix A). All participants indicating they were Euro-Canadian; Canadian, White, Italian, French, Spanish, Dutch ($n = 90$) were retained for statistical analysis.

Participants were randomly assigned, by the randomization function of the research software program, to one of three groups: control condition (video with no actors with a voice-over), parasocial condition (video with both the Aboriginal and Euro-Canadian actors always separate and never interacting or in the same scene), and parasocial
vicarious condition (video with both the Aboriginal and Euro-Canadian actor interacting). Thus three groups were created: Euro-Canadian/control, Euro-Canadian/parasocial and Euro-Canadian/parasocial vicarious.

**Materials**

**Videos.** Three videos (control, parasocial, and parasocial vicarious) were created, all between 4:27 and 4:44 minutes in length (Appendix B). Content of the videos, which remained the same for all three versions, was centered on the Laurentian University including; facilities, demographics, strategic planning, as well as various programs, and opportunities at Laurentian. Two young men (one Aboriginal and one Euro-Canadian), portrayed students at Laurentian. Both boys wore identical grey Laurentian University t-shirts.

The parasocial vicarious video involved both the Aboriginal and Euro-Canadian actors delivering the script in a warm, friendly, and interactive format. The parasocial video involved both the Aboriginal and Euro-Canadian actors delivering the content of the script but always separately. The two actors were never shown in the same frame: rather each actor was always alone. The control video had no actors: the setting as well as the content matched the other two conditions. The content was delivered by a male, of similar age to the actors, in a monotone voice.

It should be noted, that the videos were designed to meet as many of Allport’s four conditions in an effort to maximize the effectiveness of the intervention. In regards to equal status, both young men played the role of Laurentian University (LU) Students. Also, they wore the same LU t-shirts and were on screen and talking for equal amount of time. Addressing the condition of pursuit of common goals, again both young men
depicted LU students. Intergroup cooperation, a third condition for optimal contact, was demonstrated throughout the parasocial vicarious video where the young men were interacting in a playful manner, reciprocating with dialogue. They were also shown in the gym playing basketball and walking on treadmills together. The fourth condition, support by authorities or institutional support was shown both in the content of the video. A substantial portion of the video communicated the institutional support for Aboriginal Peoples and programs at Laurentian University including the Tri-cultural mandate at LU, lecture series led by Elders, Presidential greetings in all three languages, a tour of the Aboriginal Student Affairs area and lounge as well as information regarding plans to build an Indigenous Sharing and Learning Center on campus, which was part of the Next 50 fundraising campaign at the school.

Measures

Social distance. (Bogardus, 1933). Social distance is a measure commonly employed in intergroup research (Haji & Lalonde, 2009; Ortiz & Harwood, 2007 $\alpha = .82-.94$), and is an indicator of outgroup attitudes. Individuals are asked to indicate their willingness to engage and interact with outgroup members, across a variety of social situations, from distant relationships (your neighbor) to close relationships (your spouse). A cumulative Guttman scale indicates greater number of social relationships agreed to by the participant, more positive attitudes towards the outgroup. The Bogardus Social Distance Scale is one of the best-known measures of prejudice (Bastian, Lusher, & Ata, 2012).

(Appendix C)

Feeling thermometer. (Esses, Haddock, & Zanna, 1993). Intergroup affect is often evaluated with the feeling thermometer (Mazziota, Mummendy & Wright, 2011; Paolini,
Individuals were asked to indicate the degree of warmth they feel towards White Peoples and Aboriginal Peoples, by moving the slider to a point between 0 to 100 degrees. Higher numbers express more warmth or favorable feelings where lower numbers indicate less favorable or cooler feelings towards the group. (Appendix D)

**Self-efficacy expectancy.** (Mazziotta et al., 2011). Self-efficacy expectancy is a subjective measure of ones’ own ability or mastery to successfully navigate situations with outgroup members. 3-items measured on a 7-point Likert scale (1 = strongly disagree; 7 = strongly agree) include: “I am confident that I have the skills to develop positive relationships with the outgroup peoples”, “Even under difficult circumstances, I can trust my abilities to have a positive interaction with outgroup peoples”, and “I know I can trust my abilities to successfully deal with any unexpected situation that may arise from an interaction with an outgroup person”. High scores indicate greater self-efficacy expectancy ($\alpha = .78$). (Appendix E)

**Demographics.** In keeping with the Canadian National Household survey (NHS) individuals were asked if they are an Aboriginal Person, and if they responded positively to this question they were asked to identify the group that best describes them (*First Nations, Metis, or Inuk (Inuit)*). Those individuals indicating they were not Aboriginal were then asked to choose from a list of ethnic or cultural groups (*White, South Asian* (e.g., *East Indian, Pakistani, Sri Lankan, etc.*), *Chinese, Black, Filipino, Latin American, Arab, Southeast Asian* (e.g., *Vietnamese, Cambodian, Malaysian, Laotian, etc.*), *West Asian* (e.g., *Iranian, Afghan, etc.*), *Korean, Japanese, Other – Specify*) (Statistics Canada,
Gender, age, student status and location of studies were also collected. (Appendix I).

**Experiences with Aboriginal Peoples: Quantity - number of close Aboriginal relationships.** (Ortiz & Harwood, 2007). The number of close relationships with Aboriginal Peoples were rated, on a 4-point scale; None (0), Limited (1-3), Some (4-7), and Many (8+).

**Experiences with Aboriginal Peoples: Quality - degree of closeness with an Aboriginal person.** Respondents were asked to indicate, among the closest relationship they had with both an Aboriginal person, the degree of closeness that would best characterize the relationship on a 5-point scale (Does not apply-None, Distant, Casual, Close, Extremely Close). (Appendix F)

**Procedure**

The web-based survey site, Qualtrics, housed the research video and survey, which was actively accessed by participants from September 9th, 2013 to November 13th, 2013. Those individuals expressing interest in participating in the study “Laurentian Experiences” were sent a link to the study, and were asked to ensure a thirty-minute window to complete the survey. At any time in the survey, participants were able to “exit” the survey, which would bring them to the Debriefing (Appendix G). Once the informed consent was completed (Appendix H) participants were asked to indicate the ethnic group with which they most identify. Participants were then randomly assigned to watch one of three videos (parasocial vicarious, parasocial, and control). From this point, the study was set requiring a response for all questions on the page before participants were able to continue to the next page, and once participants had proceeded to the next...
page, they were unable to return to previous pages to change any answers. Participants completed the Social Distance measure (Appendix C), Feeling Thermometer (Appendix D), and Efficacy Expectancy measure (Appendix E). Demographic questions (Appendix A & I) were followed by questions regarding Friendship Experiences with Aboriginal Persons including: Number of close Aboriginal relationships and Degree of closeness with an Aboriginal Person (Appendix F). Finally participants were provided the opportunity to guess the nature of the study as well as comment on their experience or thoughts of participating in the study (Appendix J) and then shown the Debriefing form. The draw for the iPad mini took place on January 8th, 2014. All those participants who entered their name in the draw were contacted with the result of the draw on that date.
Results

Participants were asked if they could guess the nature of the study. No participant explicitly mentioned the videos as a manipulation of attitudes. Participant responses from 4 separate locations (Laurentian Psychology, Laurentian non-psychology, Barrie Psychology and Barrie non-psychology) were combined and downloaded to SPSS version 22.0 for analysis. Descriptive statistics include a table of means and standard deviations (Table 1) and inter-correlations (Table 2), for all measures.

Table 1
Overall Means and Standard Deviations
(n = 90)

<table>
<thead>
<tr>
<th>Measure</th>
<th>M</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermometer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aboriginal Peoples</td>
<td>79.01</td>
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</tr>
<tr>
<td>White Peoples</td>
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<td>14.17</td>
</tr>
<tr>
<td>Social Distance</td>
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<td>Aboriginal Peoples</td>
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<td>5.88</td>
</tr>
<tr>
<td>White Peoples</td>
<td>9.30</td>
<td>5.71</td>
</tr>
<tr>
<td>Efficacy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aboriginal Peoples</td>
<td>17.33</td>
<td>2.69</td>
</tr>
<tr>
<td>White Peoples</td>
<td>17.87</td>
<td>2.58</td>
</tr>
</tbody>
</table>

Table 2

<table>
<thead>
<tr>
<th>Measure</th>
<th>Thermometer</th>
<th>Social Distance</th>
<th>Efficacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermometer</td>
<td>--</td>
<td>-.194</td>
<td>.254*</td>
</tr>
<tr>
<td>Social Distance</td>
<td>--</td>
<td>--</td>
<td>-.101</td>
</tr>
<tr>
<td>Efficacy</td>
<td>--</td>
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</tr>
</tbody>
</table>

*Correlation is significant at the 0.05 level, 2-tailed
Tests of Experimental Effects

A 3x2 between-subjects ANOVA was run to assess the effects of video condition (control, parasocial, parasocial vicarious) on cross-group friendship experiences for both quantity of cross-group friends (none, some), and quality of cross-group friends (none/distant, close/very close) on each of the attitudinal measures towards Aboriginal peoples of warmth and social distance. Although no a priori hypothesis was stated, a 3x2 between-subjects ANOVA was also conducted to assess the effects of video condition (control, parasocial, parasocial vicarious) for the exploratory analyses of location of studies (Sudbury or Barrie). Only significant results, alpha level = .05, are reported.

Social Distance

A 3x2 between-subjects ANOVA assessed the effects of video-type (control, parasocial, parasocial vicarious) X location of Study (Sudbury or Barrie) on social distance towards Aboriginal peoples revealed a significant interaction, $F(2, 80) = 4.11, p = .02, \eta^2_p = .09$ (Figure 1). Although Levene’s Test of Equality was significant $F(5, 80) = 2.631, p = .03$, factorial ANOVA is robust to violation of homogeneity of variance, where our results still remain significant when following the rule of adding ±.03 to the stated $p$-value (Tabachnick & Fidell, 2007) and follow-up tests also reached significant values.
Simple effects analyses were conducted. Among participants viewing the control video, those from Sudbury expressed more social distance towards Aboriginal peoples ($M = 12.35, S = 8.16$) than participants from Barrie ($M = 8.71, S = 2.93$), $F(1,80) = 4.46, p = .04, \eta^2_p = .05$. Additionally, among participants from Sudbury, those viewing the parasocial video ($M = 8.4, S = 3.27$), $p = .03, \eta^2_p = .05$, and parasocial vicarious video ($M = 8.53, S = 2.20$), $p = .04, \eta^2_p = .06$, expressed less social distance towards Aboriginal peoples than those viewing the control video ($M = 12.35, S = 8.16$). Therefore the results for the Sudbury students generally support Hypothesis 1a, that the video intervention conditions would elicit more positive attitudes towards the outgroup.

**Warmth Thermometer**

A 3x2 between-subjects ANOVA, revealed a significant interaction of video condition (control, parasocial and parasocial vicarious) x cross-group friendship experiences (none and some) for the warmth thermometer, $F(2,83) = 5.39, p = .006, \eta^2_p = .12$ (Figure 2).
Figure 2.

Simple effects analyses were conducted. Among participants viewing the parasocial video, those with Aboriginal friends ($M = 83.16, S = 14.29$) expressed more warmth towards Aboriginal peoples than those who had no Aboriginal friends ($M = 58.67, S = 12.19$), $F(1,83) = 11.10, p = .001, \eta^2_p = .12$. Further, among participants with no Aboriginal friends, those in the parasocial vicarious condition ($M = 85.00, S = 13.42$) expressed more warmth towards Aboriginal people than participants in the parasocial condition ($M = 58.67, S = 12.19$), $p = .005, \eta^2_p = .09$. Thus among participants with no Aboriginal friendships, there was a greater, more favorable change in attitudes towards Aboriginal peoples for those viewing the parasocial vicarious video supporting Hypotheses 1b and 2.

Efficacy

A 3x2 between-subjects ANOVA revealed a significant interaction on reported efficacy to interact with Aboriginal Peoples depending on the video condition (control, parasocial or parasocial vicarious) and depending on the quality of relationship (none/distant,
close/extremely close) participants had with an Aboriginal. $F (2, 46) = 4.08, p = .023, \eta^2_p = .15$ (Figure 3).

![Figure 3.](image)

Simple effects analyses revealed among participants viewing the control video, those with close or extremely close previous Aboriginal friendships reported more efficacy with potential future interactions with Aboriginal peoples ($M = 6.28, S = .58$) than those with no or distant previous Aboriginal friendships ($M = 5.5, S = .87$), $F (1, 46) = 4.53, p = .04, \eta^2_p = .09$. Unexpectedly, further analyses revealed among participants reporting close or extremely close previous Aboriginal friendships; those viewing the control video ($M = 6.28, S = .58$) expressed more efficacy of future interactions with an Aboriginal person than those viewing the parasocial vicarious video ($M = 5.33, S = 1.23$), $p = .04, \eta^2_p = .08$.

These results support Hypothesis 2, that past outgroup experiences will interact with the video manipulation on self-efficacy for future interactions with Aboriginal people, however surprisingly they conflict or are in opposition to Hypothesis 1b, that the
parasocial vicarious video condition will elicit more positive attitudes than the parasocial and control videos.

**Summary**

Support was found for the hypothesis (1a) that those who view the video intervention (parasocial and parasocial vicarious) would express more favorable attitudes towards the outgroup, but this varied according to participants’ location. Participants living in Sudbury expressed less social distance towards Aboriginal Peoples if they viewed either of the video interventions (parasocial or parasocial vicarious) compared to those who saw the control video. Similarly, support was found for the hypothesis (1b) that the parasocial vicarious video would elicit more favorable attitudes than the parasocial video, which varied according to previous friendship experiences. Participants with no previous Aboriginal friendships expressed more warmth towards Aboriginal Peoples if they viewed the parasocial vicarious video compared to those who saw the parasocial video.

Results supported the hypotheses (2) that past outgroup experiences, both quantity and quality would act as individual difference variables that predict the effectiveness of the parasocial contact intervention on outgroup attitudes and self-efficacy expectancy for future interactions with Aboriginal Peoples. Whereas quantity of past Aboriginal friendships predicted warmth towards Aboriginals, quality of past Aboriginal friendships predicted self-efficacy for future interactions with Aboriginal people. No other significant main effects or interactions were observed.
Discussion

The experiment, the first of its kind to compare the effects of two video interventions (parasocial and parasocial vicarious) on attitudes of Euro-Canadian people towards Aboriginal Peoples, indicates that the parasocial vicarious video has additional benefits over the parasocial video for some groups (those with no cross-group friendships); yet elicits more prejudicial attitudes from other groups (those with close cross-group friendships viewing the control video). Further, the study has shown that for some groups, both parasocial and parasocial vicarious videos are effective at improving attitudes of self-identified Euro-Canadian people towards Aboriginal Peoples. Two themes emerging from the study will be discussed: cross-group friendship experiences as an individual difference variable that predicts the effectiveness of parasocial interventions on outgroup attitudes, and an unexpected finding that geographical location may be an individual difference variable that predicts the effectiveness of parasocial interventions on outgroup attitudes.

Cross-group Friendship Experiences

Quantity. For those participants with no cross-group friendships, the parasocial vicarious video elicited more warmth towards the Aboriginal outgroup than the parasocial video. Also, compared to those with no cross-group friendships those with cross-group friendships expressed more warmth towards Aboriginal people when viewing the parasocial video intervention. In sum, it could be said that quantity of cross-group friendships acts as an individual difference variable that predicts the effectiveness of parasocial video interventions in improving outgroup attitudes; when there are no
cross-group friendships, the parasocial video is the least effective at improving outgroup attitudes and the parasocial vicarious intervention would be best for this group.

In agreement with Christ et al. (2010), who found those with limited contact experiences were more likely to benefit from an indirect contact experience, the present study revealed differences in reported attitudes across the video conditions only among those participants with no cross-group friendships, and not for those participants with cross-group friendships. Specifically, the differences in reported attitudes were found between the parasocial condition and the parasocial vicarious conditions for those participants with no cross-group friendships. No differences in reported attitudes were found between participants with no cross-group friendships viewing the control condition and the other two conditions. Given differences in reported warmth exist between participants viewing the parasocial vicarious video and the parasocial video, yet no difference was found in reported warmth between the control condition and the other two conditions, suggests perhaps the parasocial video is somewhat activating prejudice in those participants with no cross-group friendships where the parasocial vicarious video is somewhat promoting more positive intergroup attitudes.

Quality. Three points of interest emerge in regards to quantity of cross-group experiences as an individual difference variable that predicts the effectiveness of parasocial video interventions on self-efficacy expectancy for future interactions. First, as expected, and consistent with correlational studies looking at quality of cross-group relationships and prejudice (Berg, 2009; Harwood et al., 2005; Tausch et al., 2007), those participants with close or extremely close cross-group friendships expressed more efficacy than those with no or distant cross-group friendships, among those who viewed
the control video. Second, no differences in expressed efficacy for future interactions were found among the video conditions for those with no or distant cross-group relationships. Third, those participants who reported close or extremely close cross-group friendship experiences expressed less efficacy when viewing the parasocial vicarious video compared to the control video. The latter two points will be discussed.

It seems that for those with no close cross-group friendships, the video interventions are not effective at improving efficacy for future interactions with an Aboriginal person. Although watching others mastering a task can be a source of self-efficacy beliefs, particularly for those with little or no experience at the task (Bandura, 1986, 1997; Schunk & Meece, 2006), three possible explanations are presented to account for this finding among those with no close cross-group friendships: repetition of exposure, multiple models, and mastery of vicarious interaction. First, perhaps one short 4-minute video did not provide enough exposure or experience for participants to feel increased efficacy. In a longitudinal study of intergroup attitudes, Christ et al., (2010) found that indirect contact effects (extended) were more likely to affect intergroup attitudes over time. Additionally, it should be noted that prior personal experiences of mastering a task are more influential than vicarious experiences in developing self-efficacy beliefs (Pajares & Schunk, 2002; Schunk & Meece, 2006) and those participants with no close cross-group friendships would not have a history, upon which they can draw, to help develop self-efficacy beliefs. Perhaps repeated exposure to the video would provide a history of vicarious mastery for the participants to base their beliefs. Two vicarious contact studies repeatedly exposed participants to vicarious models: Bandura and Menlove (1968) exposed participants to eight, three-minute vicarious videos that lead to a
change in participants’ behaviors and Mazziotta et al. (2011) had participants view two videos with vicarious interactions leading to an increase in reported self-efficacy expectancy. Second, some research has found that exposure to multiple models is more effective at increasing self-efficacy compared to one model (Bandura & Menlove, 1968; Schunk, Hanson, & Cox, 1987). Bandura & Menlove (1968) included a variety of models (children) in one vicarious video condition compared to a second condition depicting only a single model (child). They found participants exposed to the multiple model condition displayed more approach behaviors towards dogs than the participants in the single-model condition. The present study implemented one model for vicarious interaction. Perhaps for those with limited cross-group friendships, multiple models of vicarious interaction would increase the likelihood of improving self-efficacy beliefs. Finally, it may be possible that participants did not perceive the cross-group interaction, depicted in the parasocial vicarious video, as “masterful”. When observers perceive a vicarious task as unsuccessful, belief in their own self-efficacy may be negatively influenced (Schunk & Meece, 2006). Although the actors were directed to appear friendly towards one another, the boys had not previously met, and at times presented as awkward in the parasocial vicarious video.

Surprisingly, the parasocial vicarious condition resulted in lower expressed efficacy of future interactions for those with close or extremely close cross-group friendships than those viewing the control video. First, it may be possible that these participants did not view the cross-group interaction in the parasocial vicarious video as a masterful or successful interaction, which may undermine previously held self-efficacy beliefs (Schunk & Meece, 2006). As previously mentioned, although the actors were instructed
to act in a friendly manner with one another, the boys had not previously met and may have appeared awkward in their interactions. Therefore the vicarious interaction depicted may have challenged or conflicted with previous experiences with Aboriginal friends bringing into question self-efficacy for future interactions. Additionally, although personal performance is the strongest predictor of self-efficacy (Pajares & Schunk, 2002; Schunk & Meece, 2006), explaining the high reported efficacy among participants with close cross-group friendships viewing the control video, vicarious experiences and physiological reactions also lend to self-efficacy assessment (Schunk & Meece, 2006). Physiological symptoms including increased heart rate and feelings of anxiety can signal one lacks skill (Schunk & Meece, 2006). Assuming the vicarious interaction was not perceived by participants as masterful and relaxed, but awkward or annoying, it is possible the video elicited physiological symptoms signaling a lack of skill. It is important to note that the to the researcher’s knowledge, no previous study has looked at how efficacy of those with close cross-group experiences might be influenced by a variety of contact experiences.

In sum, cross-group friendship experiences interacted with the video intervention. For the dependent variables of outgroup attitudes and efficacy, no one video condition is best for all groups. The parasocial vicarious video seems to elicit more favorable attitudes for some (those with no cross-group friendships), but less favorable beliefs for others (those with close or extremely close cross-group friendships).

**Location**

Most studies on indirect contact are conducted in one location, or on one population. Very few studies that have looked at the possible effects of indirect contact
experiences on attitudes across different locations. It seems presumptuous to assume that the attitudinal outcomes of a video intervention in one location would realize the same results in a second location. Our study provides a unique opportunity to examine whether these differences exist, and further to begin theorize over the differences.

Two points of interest arise from the results. First, among participants viewing the control video, Sudbury students expressed more social distance from Aboriginal Peoples than students from Barrie. Second, Sudbury participants responded in accordance with the hypothesis that those participants viewing the parasocial interventions would express more favorable attitudes towards Aboriginal Peoples. However, there were no differences in reported attitudes towards Aboriginal Peoples by the Barrie participants across the video conditions. Three possible explanations will be explored. First, I speculate demographic differences in the regions may account for these differences where Barrie participants may experience secondary transfer effects (Pettigrew, 2009) thereby reporting less social distance for the control video. Similarly, demographic differences between the regions may leave Sudbury participants more vulnerable to negative contact effects, thereby reporting more social distance for those viewing the control video. Additionally it is possible the content of the videos elicit competition for resources among participants from Sudbury influencing those viewing the control video to report more social distance towards Aboriginal Peoples. Secondary transfer effects, negative contact effects and prejudicial attitudes in response to competition for resources will be discussed.

Sudbury participants’ reported social distance towards Aboriginal Peoples is in agreement with our hypothesis, that the parasocial interventions would improve
intergroup attitudes. Taken alone, the results of the Sudbury participants show support for both parasocial and parasocial vicarious video interventions as an instrument to improve intergroup attitudes. However, the present study also looked at reported social distance towards Aboriginal Peoples from participants in Barrie, where no differences were reported across the three video conditions. The results suggest that the differences lie in the control video, where Sudbury participants expressed more prejudicial attitudes and Barrie participants expressed less prejudicial attitudes. Secondary transfer (Pettigrew, 2009) may account for these differences. The secondary transfer effect is where positive effects of contact with a primary outgroup can also lead to improved attitudes towards a secondary outgroup not directly involved in contact. Research supporting secondary transfer effect provides evidence that improved attitudes formed through contact with one group are generalized to a second outgroup (Schmid, Hewstone, Kupper, Zick, & Wagner, 2012; Tausch et al., 2010). In Barrie, visible minorities (not including Aboriginal Peoples) comprise 7.5% of the population compared to a 2% visible minority population in Sudbury. It may be that participants in Barrie have more opportunity for contact with any ethnic outgroup which could improve outgroup attitudes not only for that primary contact group, but also towards Aboriginal Peoples with whom there has not been much contact.

A recent study found support for the negative contact hypothesis (Paolini, Harwood, & Rubin, 2010), showing negative contact is a strong predictor of increased prejudice and discrimination (Barlow et al., 2012). According to this perspective, negative contact experiences are more likely to generalize to the group as a whole and are more powerful than positive contact experiences. In Sudbury Aboriginal Peoples, who
are not included as a visible minority, comprise 11% of the total population compared to a 5% Aboriginal population in Barrie (Statistics Canada, 2103). Given that Aboriginal Peoples make up more than twice the population in Sudbury compared to Barrie, Sudbury participants’ opportunity for contact is greater. It is therefore more likely, given the greater opportunity for intergroup contact, that participants from Sudbury may have experienced one negative intergroup experience, which generalized to the group as a whole. Also it may be that in Barrie, where Aboriginal peoples comprise such a small percentage of the population, Euro-Canadian participants feel no prejudice towards a group that is barely visible.

Finally, it is also possible that for Sudbury campus participants, the control video elicited feelings of competition for resources, which can lead to outgroup prejudice (Sherif, 1966). The videos are primarily focused on the Sudbury campus as well as on happenings relevant to the local Aboriginal community. It may be that the control video, which was fully taped on the Sudbury campus outlining a number of Aboriginal programs, initiatives, and plans for the Sudbury campus, elicited feelings of competition among the Euro-Canadian Laurentian University participants. Further, it is possible the participants from Barrie in the control condition, did not feel they were in competition with the Aboriginal students for resources as they are physically 300km removed from the Sudbury campus, where the video was taped. Although the videos were designed with the intention of both Sudbury and Barrie students feeling the same degree of belonging, it seems possible that the content of the control video was experienced differently for the two groups. The Common Ingroup Identity Model (Gaertner, Dovidio, Anastasio, Bachman, & Rust, 1993) suggests that forming a superordinate category of “we” from
“us” and “them” can lead to a reduction in intergroup bias. It is possible only for Sudbury participants viewing the control video, ingroup and outgroup categories were salient, rather than the superordinate category of Laurentian student, which lead to more prejudicial attitudes. It is possible these separate categories were not salient for Barrie students viewing the control video, as the video was shot in Sudbury.

Limitations

Intergroup contact, which has been widely studied, indicates a variety of variables influence intergroup outcomes that may be tested across a number of measures. In order to maintain a manageable study, it was necessary to eliminate a number of possible factors as well as measures, which could potentially provide valuable information for indirect contact research.

First, although a mere exposure condition, one where participants would view only an outgroup member in the video, may add to existing literature (Mazziotta et al., 2011), the present study included control, parasocial, and parasocial vicarious video conditions in the interest of maintaining three video conditions. Specifically, the parasocial and parasocial vicarious conditions were thought to best reflect any institutional or national video campaign designed to promote intergroup harmony and national pride: a video where different groups are represented but never together (Veteran Affairs Canada, 2012), as well as a video where groups are depicted together.

The present study did not explicitly measure awareness of one’s own group membership as well as awareness of an Aboriginal group (salience of group membership), which may provide insight into the differences in attitudes based on location of studies. A number of studies have found salience of group membership to
moderate intergroup attitudes (Harwood et al., 2005; Voci & Hewstone, 2003) as well as facilitate generalizability to the group as a whole (Brown & Hewstone, 2005; Voci & Hewstone, 2003). Only when group salience was high for Italian hospital workers during contact with an immigrant hospital worker, were positive effects of attitudes demonstrated towards the rights of immigrant coworkers (Voci & Hewstone, 2003), and only when salience of age-group was high for grandchildren did the quality of contact in high-frequency contact with a grandparent relationship, affect attitudes towards older aged people (Harwood et al., 2005). Retrospectively, I theorize that it is possible both the parasocial and parasocial vicarious videos did not elicit high group membership salience for those participants from Barrie; it was presumptuous to assume that both groups of students would experience the videos in the same way. The videos were shot on location in Sudbury, and although there was some Barrie campus content, the majority of the information in the videos related to the Sudbury campus. Perhaps the Barrie Laurentian students did not identify strongly with the Euro-Canadian actor, as he was portraying a student from the Sudbury campus. It would be interesting to measure group membership salience in future studies to determine whether group salience differed between the two groups.

In addition to group salience, the degree a person identifies with the model or actor has been found to influence intergroup attitudes. People are motivated by the successes of others which who they perceive to be similar (Bandura, 2001), which is of particular importance with vicarious learning (Schunk & Meece, 2006). Interestingly, ingroup character analysis supported previous findings (Ortiz & Harwood, 2007) where participants who had strong identification with the in-group character (White actor) were
more likely to express warmth towards Aboriginal Peoples than those who had no or weak identification with the in-group character.

Additionally, it would be important to measure reciprocal attitudes of any video intervention on both groups. Research has found differences in contact effects among majority and minority status members. For example, contact effects were weaker for the minority status members in a number of studies (Binder et al., 2009; Tropp & Pettigrew, 2005) as well as in a review of research regarding contact hypothesis (Hewstone & Swart, 2011), suggesting different groups experience and interpret the same contact experience differently. It would be important to determine how Aboriginal Peoples are affected, if at all, by any video intervention aimed at improving intergroup relations. The present study intended on measuring reciprocal attitudes of the video conditions for both Euro-Canadian and Aboriginal participants, but was unable to obtain a sample of Aboriginal participants large enough to run statistical analysis.

It was difficult to compare results of this study with previous research in regards to quality of cross-group experiences, as there has been a lack of uniformity in the way in which these constructs have been measured in past research. Although many contact studies look at “quality” of cross-group experiences, “quality” has measured in a variety of ways: valence on polar scales (Islam & Hewstone, 1993; Tausch et al., 2007), inclusion of other in self (Haji & Lalonde, 2009), outgroup member named as one of five closest friends (Noguchi & Haji, 2014), an member with whom important matters had been discussed in the last 6 months (Berg, 2009). Given that “quality” is defined in a variety of ways in contact research, questions remain about the comparability of the results of this study with previous research.
Finally, limited interpretations are possible for the significant interactions of cross-group friendships with the video manipulations on attitudes and efficacy, and for the significant interaction of location of study with the video manipulations on outgroup attitudes. Despite the significant interactions involving these individual difference variables, causal interpretations are not possible as cross-group friendships experiences and participant location are measured not manipulated variables. Therefore it is plausible that other (third) variables better account for the observed interaction effects.

**Implications and Future Directions**

The research indicates both past cross-group experiences, as well as location, are individual difference variables that can predict the effectiveness of parasocial contact interventions. The study also reveals preliminary evidence for parasocial vicarious contact as a possible intervention to promote more positive outgroup attitudes. Further, additional benefits may exist with a parasocial vicarious intervention over and above the parasocial intervention, at least in some groups.

Those involved with indirect contact research have recognized a number of benefits of implementing these interventions over direct contact experiences. First, in many populations there is little opportunity for direct contact experiences, which may be either due to homophily in social networks and neighbourhoods (McPherson et al., 2001; Putnam, 2007) or due to geographical constraints. In areas where populations are either segregated, separated, or have limited opportunity for direct contact experiences, indirect contact interventions are a manageable alternative (Christ et al., 2010; Crisp & Turner, 2009). Indirect contact interventions may be less costly to implement (Vezzali et al., 2011). Further, indirect contact experiences may be used as a first step, which can lead to
a more meaningful and positive direct contact experience (Birtel & Crisp, 2012; Crisp & Turner, 2009; Crisp et al., 2010).

I argue that parasocial and parasocial vicarious video interventions subsume all of these aforementioned benefits. Furthermore I propose video interventions offer additional benefits over and above other forms of indirect contact interventions. First, videos can be easily tailored to target specific groups including, but not limited to, ethnicity, religion and sexual orientation. Further, the models experienced through video, which can be developed to meet specific criteria, would provide optimal examples for viewers where imaginational contact might not always result in ideal outgroup models, rather they may reflect possible stereotyped ideals/views of the participant. Also, extended contacts may not exist for all people. When they do exist, the extended contacts may not be ideal representations or models from which positive outgroup attitudes can be learned.

Additionally, as Bandura (2001) pointed out, vicarious media can have “tremendous reach”. Once the videos are produced they can easily be distributed, and thereby viewed, across a variety of settings including widespread, general viewing as with mass media/television, or location-specific viewing with screens and monitors as within an university. Video also offers the possibility of repeated exposure that requires no gathering of people, and no specific required participation on behalf of the viewer. In short, parasocial and parasocial vicarious interventions offer a practical instrument in fostering more positive intergroup attitudes.

Some media interventions have previously been found to influence behaviour and social norms in real world conflict situations. Paluck (2009) looked at the effects of a radio soap opera intervention in Rwanda, which mirrored the issues and conflict leading
up to the 1994 genocide between Tutsi and Hutu peoples, but included members from each group joining together to speak out against violence. Results of the present study provide further evidence for media interventions as a tool to improve intergroup relations. The present findings may indicate that parasocial video campaigns, where groups are represented separately, but in the same video campaign (Veterans Affairs Canada, 2012; Virtual Citizenship Resource Center, 2013), may not be the most effective method to improve intergroup relations and attitudes. In fact, they suggest that for those with limited outgroup experiences, this format of video may elicit less favorable attitudes. These results may inform practice and policy at both institutional, and national levels where video campaigns are in practice. Further, the present study provides preliminary evidence that a video intervention may differentially influence outgroup attitudes depending on location, compelling further research on the matter. A video campaign may promote more positive outgroup attitudes in one location and result in more prejudicial attitudes in others.

Moving forward, additional research is warranted to determine whether the present results replicate in other contexts. Also, this study only looked at three (no actors, parasocial, parasocial vicarious) of many possible combinations of group representations. It would be important to look at a variety of possible combinations for groups that could be represented in video interventions: control video with no meaningful group content, parasocial where only one group is represented, video that begins parasocial but ends in a parasocial vicarious context, as well as combinations where multiple groups are represented in parasocial, parasocial vicarious or a combination of the two. Further, the current study exposed participants to the video interventions for one four-minute session.
It would be important to conduct longitudinal studies on parasocial and parasocial vicarious video interventions.

Allport’s Contact Hypothesis (Allport, 1954), which has been supported through meta-analysis, states intergroup attitudes can be improved through contact and effects of contact would be increased when key favorable conditions are present (Pettigrew & Tropp, 2006). More recently, attention has shifted to investigate various types of indirect contact: imagined contact (Crisp & Turner, 2009), extended contact (Wright et al., 1997), and parasocial contact (Schiappa et al., 2005), vicarious contact (Mazziotta et al., 2011) as influencing positive intergroup attitudes. The present study looked at two forms of indirect contact, parasocial and parasocial vicarious, as possible means of improving intergroup attitudes. I suggest that parasocial vicarious contact is a viable intervention to improve majority group attitudes, particularly for those who may have limited cross-group experiences.
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Appendix A
Self-Identify Ethnicity

Are you an Aboriginal person? That is, First Nations, Metis or Inuk (Inuit)?
Yes _____ No _____

Please indicate the group that best describes you.
____ First Nations
____ Metis
____ Inuk (Inuit)

Please indicate the ethnic group (or groups) with which you identify. You may choose more than one option.
____ White
____ Arab
____ South Asian (e. g. East Indian, Pakistani, Sri Lankan etc.)
____ Southeast Asian (e. g. Vietnamese, Cambodian, Malaysian, Laotian, etc.)
____ Chinese
____ West Asian (e.g., Iranian, Afghan, etc.)
____ Black
____ Korean
____ Filipino
____ Japanese
____ Latin American
____ Other – Specify ________________________
Outside at the Laurentian University entrance sign.

This is the entrance of the Laurentian campus. I'll be taking you on a tour of the beautiful campus, showing you some of the interesting activities, programs and opportunities available at Laurentian.

This is the entrance to the 750-acre Laurentian campus, which is situated on beautiful Lake Ramsey.

Laurentian has over 9700 full or part-time students.

Laurentian offers over 175 programs: 33 of those are at the masters and doctoral levels.

There are over 250 research projects currently underway at Laurentian.

Laurentian was ranked 5th in McLean's magazine for scholarships and bursaries?

Laurentian university has over 1,200 students attending its Barrie & Orillia campuses including the Laurentian Voice: an online community that showcases various writings from both students and staff in Barrie & Orillia.

Sports complex:

This is the Laurentian University track. Laurentian has both 400meter and 200meter outdoor tracks, four outdoor tennis courts, a soccer field, a beach ball volleyball court, and 35 kilometers of natural trails used for hiking, running, biking, and which are groomed in the winter months for x-country skiing.

Just a few hundred meters down this trail you can find beautiful Laurentian beach, situated on Lake Nepahwin, which is supervised in the months of July and August.

Now we will go take a look inside the Ben Avery Gym and check out the facilities and programs it has to offer.

Pool

Here we are at the 50-meter Jeno-Tihanyi Olympic Gold pool. Home to the Laurentian Vees.

Students also can swim in this Olympic-size pool, that has two diving boards, as well as 3, 5, 7.5 & 10-meter diving platforms.
**Gym**

W: The Ben Avery gym is home to Laurentian voyageurs

**Training Room**

This is the student recreation center. Students can use the free weights & the weight machines. There are also treadmills and stair climbers. It is a great place to work out and meet new friends.

**Upstairs Track**

If you prefer to run on a track rather than the treadmill, you can head upstairs and get your run in on the indoor 200-meter track. Great for winter running.

Or if you like to play racquet sports rather than workout with weights, there are indoor squash courts, & badminton courts. There is even a climbing wall to try out!

**Aboriginal Student Affairs Area**

This is the Aboriginal Student Affairs office and lounge. Currently, Aboriginal students- that is First Nations, Inuit, & Metis- can come and study in the lounge area where there are computers available for student use. There is a lecture series offered to all students at Laurentian, often taught by Elders. Elders are also on campus for consultation. There is a writing center and the Native Student Affairs also provide counseling.

Laurentian has a tri-cultural mandate which includes Anglophone, Francophone, & Aboriginal which can be seen across various activities at Laurentian, including the Presidents greeting for all events.

**Showing indigenous brochure...**

Fundraising for the Indigenous Sharing and Learning Centre, was part of the Next 50 campaign, which not only realized, but overshot it’s fundraising goal of $50 000 000 in March 2013. The center will be a unique space that faculty, staff, students and other members of the community can enjoy Native art, culture and spirituality.

**Brenda Wallace Room**

This is the Brenda Wallace room. It is a quiet & comfortable place to read, study or relax. It is located on the 3rd floor of the J.N. Desmarais library. The Brenda Wallace computer room can be found on the 2nd floor.

**Centre for Academic Excellence**
There is also a Centre for Academic Excellence, which provides services to students including: tutors, degree & career training as well as an early notification program to help students who may be having difficulty with academics to develop strategies to succeed in school. They even have Learning strategists to help students with writing skills, provide peer-assisted study groups as well as develop a number of skills and strategies to support student success.

**Laurentian University Entrance Sign**

This tour has showcased a few of the spaces, places, and goings on at Laurentian, and has highlighted some of the great aspects of Laurentian. Thanks & Miigwetch.

Parasocial (actors separate) 4:44

A = Aboriginal / First Nations actor  
W = White Actor

**Outside at the Laurentian University entrance sign.**

A: Aanii, my name is Michael Nadjawon and this is Laurentian University. This is the entrance to the 750-acre university situated on Lake Ramsey.

W: Aanii. Hello. My name is Matthew Thompson I am here to give you tour of our beautiful campus and to highlight all of the opportunities, interesting activities and programs Laurentian has to offer. Laurentian University has over 9,700 full-time or part-time students.

A: Laurentian offers over 175 programs: 33 of those programs are at the masters and doctoral levels.

W: There are over 250 research projects currently underway at Laurentian.

A: Laurentian was ranked 5th in McLean’s magazine for scholarships and bursaries. Laurentian has over 1200 students at the Orillia & Barrie campuses.

W: Laurentian University has many clubs and associations including the Laurentian Voice.

**Sports complex - Track**

W: This is Laurentian track. Laurentian has both 400meter track and a 200meter tracks, four outdoor tennis courts, a soccer field, a beach ball volleyball field, and 35 kilometers of beautiful natural trails.
A: Just a few hundred meters down this trail there is the beautiful Laurentian beach, on Lake Nepahwin. The beach is supervised from the months of July and August.

**Pool**

A: Here we are at the Laurentian 50 meter Jeno-Tihanyi Olympic Gold pool. Home of the Laurentian Vees.

W: Students can also swim in the Olympic-size pool that has two diving boards, as well as 3, 5, 7.5, & 10-meter diving platform.

**Ben Avery Gym**

W: Welcome to the Ben Avery gym, home of the Laurentian voyageurs

**Training Room**
(on stair climbers)

A: Welcome to the student recreation center, where students can use the free weights & the weight machines, treadmills and stair climbers. It is a great place to work out and meet new friends.

**Upstairs Track**
(on track walking with badminton racquets)

W: If you prefer a track rather than the treadmill, you can come to the 200-meter indoor track. Great for winter running.

A: If you would rather play racquet sports than lifting weights, we have an indoor squash rooms, & nets and there is also a climbing wall you can try out!

**Aboriginal Student Affairs Area**

A: Here we are at the Aboriginal Student Affairs and lounge office, currently where Aboriginal students of First Nations, Inuit or Metis can use the lounge area to study and where computers are provided for all student use. There is a lecture series going on at Laurentian University that involves all the students that involves Elders teaching and Elders are also on campus to provide consultation. There is also a writing center and Native Student Affairs that provide counseling.

W: Laurentian has a tri-cultural mandate which includes Anglophones, Francophones, & Aboriginal which can be seen across various activities at Laurentian campus including the greeting that the President makes before each event. There are plans to create a new space at Laurentian campus to help academic and cultural pursuits of Indigenous Peoples.
Showing indigenous brochure...

A: The Indigenous Learning & Sharing Center is a fine space where faculty, students and members of the community can come and share in on Native art, spirituality and culture. Here is a brochure of what the facility may look like.

Brenda Wallace Room

A: We are in the Brenda Wallace reading room, on the third floor of the J.N. Desmarais library. It is a great place where students can relax, read, & study and also on the 2nd floor there is a computer lab that provides computers for students.

Centre for Academic Excellence

W: The school also has a Centre for Academic Excellence. Which provides students with services such as: tutors, degree & career training and also an early notification to help students if they are struggling with their academics and strategies to help them succeed in school.

Entrance Sign

A: Hi I am Michael Nadjawon, and I am saying thanks. It has been fun showing the showcases, places and spaces that Laurentian has to offer. Thank you.

W: So, I am Matthew Thompson. I had a lot of fun highlighting some of the great aspects of Laurentian. Miigwetch.

Parasocial Vicarious (actors together) 4:24

A = Aboriginal / First Nations actor
W = White Actor

Outside at the Laurentian University entrance sign.
A: Aanii, my name is Michael Nadjawon and this is Matthew Thompson and we are at Laurentian University.

W: Michael and I are here to give you a tour of the beautiful campus and show you some of the interesting activities, opportunities and programs available that Laurentian has to offer.
A: This is the entrance to our beautiful campus, 750-acres situated on Lake Ramsey. Laurentian has over 175 programs: 33 of those programs are at the masters and doctoral levels.

W: And we have over 9700 students that are full-time or part-time.

A: And we were ranked 5th in McLean's magazine for scholarships and bursaries?

W: wow. That is fantastic.

A: That is fantastic. And over 1200 students go to the Laurentian Orillia & Barrie campuses.

W: Did you know that there are over 250 research projects currently underway here at Laurentian.

**Sports complex:**

W: Hey Michael, we are here we are at the Laurentian track. Laurentian has both 400meter track and a 200meter tracks, plus four tennis courts, a soccer field, a beach ball volleyball field, and 35 kilometers of beautiful natural trails.

A: That's awesome, and Matthew did you know that just a few hundred meters down this trail there is the beautiful Laurentian beach, on Lake Nepahwin, which is supervised in the months of July and August.

**Pool**

A: Hey Matthew, here we are at the Laurentian 50 meter Jeno-Tihanyi Olympic Gold pool. Home of the Laurentian Vees.

W: Students can swim in this Olympic-size pool that has two diving boards, as well as 3, 5, 7.5, & 10-meter diving platforms.

A: Hey Matthew, have you ever jumped off the 10-meter diving platform?

W: Hah...No, no.

**Ben Avery Gym**
*(playing B-ball)*

W: This it the Ben Avery gym, home of the Laurentian voyageurs

A: Let's go check out the training room....

**Training Room**
(on stair climbers)

A: Hey Matt, welcome to the student recreation center, where students can use the free weights & the weight machines, treadmills and stair climbers. It is a great place to work out and meet new friends.

Upstairs Track
(on track walking with badminton racquets)

W: or, if you prefer a track rather than the treadmill, you can come to the 200-meter indoor track. Great for winter running.

A: Yeah and if you like to play racquet sports than lifting weights, the gym provides indoor squash rooms, & badminton nets and also a climbing wall you can try out!

Aboriginal Student Affairs Area

A: Matthew, here is the Aboriginal Student Affairs office and the lounge is just up here where the students, where there are computers provided for student use. Did you know that there is a lecture series that goes on here at Laurentian for all students where they provide teachings from Elders. And you can go to the writing center or the Aboriginal Student Affairs for more counseling.

W: There is a Laurentian mandate for Anglophone, Francophone, & Aboriginal and you can see all of these activities all across the campus and including the greeting that the President makes before each event.

Showing indigenous brochure...

A: Hey Matthew, did you know that The Indigenous Learning & Sharing Center, will be a fine space where faculty members, students and members of the community can come and learn about Native culture, spirituality and Native art.

Brenda Wallace Room

A: Hey Matthew, did you know we are in the Brenda Wallace reading room, on the third floor of the J.N. Desmarais library. It is a great place where students can read, study and relax and on the 2nd floor there is a computer lab that provides computers for students.

Centre for Academic Excellence

W: Sweet. did you know that the library also has a Centre for Academic Excellence. Here they provide services such as: tutors, degree & career training and also an early notification to help students if they are struggling with their academics and also to create skills to succeed in school.
Entrance Sign

A: So Matthew Thompson, it has been fun showing the showcases, the spaces, and the places, Laurentian has to offer.

W: Yeah Michael Nadjawon, I had a lot of fun highlighting some of the great aspects of Laurentian. Miigwetch.
Appendix C
Social Distance Scale

The following questions relate to your perception of various ethnic groups. Please indicate your willingness to engage with an Aboriginal person for each of the social situations presented.

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Definitely would not mind</th>
<th>Probably would not mind</th>
<th>Neither</th>
<th>Probably would mind</th>
<th>Definitely would mind</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your neighbour?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Your friend?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Your boss?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Member of your extended family?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Your brother or sister in law?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Your boyfriend/girlfriend?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Your spouse?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Appendix D
Thermometer

We are interested in attitudes you may have towards various groups. Please rate on the thermometer that runs from zero (0) to a hundred (100) degrees, to indicate the degree of warmth you feel towards each group. The higher the number, the warmer or more favorable you feel. The lower the number, the colder or less favorable you feel.

Aboriginal Peoples

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>10</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>50</td>
<td>60</td>
<td>70</td>
<td>80</td>
</tr>
</tbody>
</table>
## Appendix E
### Efficacy Expectancy

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am confident that I have the skills to develop positive relationships with <strong>Aboriginal</strong> Peoples.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Even under difficult circumstances, I can trust my abilities to have a positive interaction with <strong>Aboriginal</strong> Peoples.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I know I can trust my abilities to successfully deal with any unexpected situation that may arise from an interaction with an <strong>Aboriginal</strong> person.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix F
Friendship Experiences

Number of Close Aboriginal Relationships

We are interested in your past experiences with individuals from the ethnic groups represented in the videos. Please answer the following questions.

Please indicate the number of close relationships you have with individuals who are Aboriginal.

___ None
___ Limited (1-3)
___ Some (4-7)
___ Many (8+)

Degree of Closeness with an Aboriginal Person

Among the relationships you may have with Aboriginal People, think about the closest relationship you have experienced. Indicate the degree of closeness that would best characterize this relationship.

___ Does not apply – None
___ Distant
___ Casual
___ Close
___ Extremely Close
Appendix G
Debriefing Form

DEBRIEFING FORM – Laurentian Students
Thank you for participation in this research. The main purpose of this research was to look at attitudes towards members of ethnic groups after exposure to a video.

In this study, you watched a video that provided information about various activities and programs at the Laurentian University campus. Some of you watched a video with an Aboriginal and Euro-Canadian interacting in a friendly manner as they delivered the information. Others watched a video with both an Aboriginal and Euro-Canadian delivering the same information but the two did not interact with each other. Finally, some of you watched a video with no actors. Based on past research that has found intergroup attitudes can improve after imagining (Turner, Crisp, & Lambert, 2007) and watching interactions (Mazziotta, Mummendey, & Wright, 2011) with members of other groups, we expected to find that those people who watched the video with the Aboriginal and Euro-Canadian interacting in a positive manner, would report the lowest anxiety and highest confidence about interacting with members of the other ethnic group. The nature of the research question was not fully disclosed as we felt pre-knowledge of the nature of the study could influence or change the reporting on the questionnaires.

You also completed a measure of your identification with your ethnic group, a behavior measure of your responses to recent events, and a question regarding perception of threat. It is our hope that this will provide insight into how these variables are related to attitudes.

Although there were no inherent risks from participating in the study, you may have felt uncomfortable answering questions presented throughout the experiment. If you desire, additional support can be obtained at the Counseling and Support Programs Office, in room G-19 Health Services Single Student Residence at (705) 675-1151 x 6506.

If you have any further questions, you can contact the researcher at bc_gougeon@laurentian.ca or Dr. Haji, PhD at rhaji@laurentian.ca.

If you have any questions regarding the ethics of this study you can contact the Ethics Officer at Laurentian University (Sudbury), at (705) 675-1151 or toll free at 1-800-461-4030 x 2436 or by e-mail at ethics@laurentian.ca.

If you would like a summary of overall results of the study once it is over, please e-mail Brooke Gougeon at bc_gougeon@laurentian.ca. Results will be sent as soon as they are available.
Thank you very much for your participation! Please do not discuss the details of this study with anyone who may be a future participant, as it could bias their responses.

DEBRIEFING FORM – LU students @ Georgian Campus

Thank you for participation in this research. The main purpose of this research was to look at attitudes towards members of ethnic groups after exposure to a video.

In this study, you watched a video that provided information about various activities and programs at the Laurentian University campus. Some of you watched a video with an Aboriginal and Euro-Canadian interacting in a friendly manner as they delivered the information. Others watched a video with both an Aboriginal and Euro-Canadian delivering the same information but the two did not interact with each other. Finally, some of you watched a video with no actors. Based on past research that has found intergroup attitudes can improve after imagining (Turner, Crisp, & Lambert, 2007) and watching interactions (Mazziotta, Mummendey, & Wright, 2011) with members of other groups, we expected to find that those people who watched the video with the Aboriginal and Euro-Canadian interacting in a positive manner, would report the lowest anxiety and highest confidence about interacting with members of the other ethnic group. The nature of the research question was not fully disclosed as we felt pre-knowledge of the nature of the study could influence or change the reporting on the questionnaires.

You also completed a measure of your identification with your ethnic group, a behavior measure of your responses to recent events, and a question regarding perception of threat. It is our hope that this will provide insight into how these variables are related to attitudes.

Although there were no inherent risks from participating in the study, some may have felt uncomfortable answering questions presented throughout the experiment. If you desire, additional support can be obtained from Student Services in room B110, of the Barrie Campus of Georgian College at (705) 722-1523.

To enter your name in the draw for the iPad mini, please email Brooke Gougeon at bc_gougeon@laurentian.ca.

If you have any further questions, you can contact the researcher at bc_gougeon@laurentian.ca or Dr. Haji, PhD at rhaji@laurentian.ca.

If you have any questions regarding the ethics of this study you can contact the Ethics Officer at Laurentian University (Sudbury), at 1-800-461-4030 x 2436 (ethics@laurentian.ca) or the Research Ethics Board Chair, Dr. Richard Rinaldo, (705) 728-1968 x 5583 (Richard.Rinaldo@GeorgianCollege.ca) at Georgian College.
If you would like a summary of the overall results of the study once it is over, please e-mail Brooke Gougeon at bc.gougeon@laurentian.ca. Results will be sent as soon as they are available.

Thank you very much for your participation! Please do not discuss the details of this study with anyone who may be a future participant, as it could bias their responses.
Informed Consent Letter – Psychology students

Study: Laurentian Experiences
Researcher: Brooke Gougeon - Laurentian University
bc_gougeon@laurentian.ca

Thank you for your interest in this study. Your participation will involve watching a short (approximately 4 minute) video and then completing a series of short questionnaires. The information collected will remain anonymous and confidential. This research project has been approved through the ethics department at Laurentian University. Participation in this research carries no inherent risk.

Participation in this research project will require approximately 20 minutes of your time. As compensation for participation, you will receive 0.5% credit towards your psychology course. Your name will not be linked to your responses.

This online survey is hosted by Qualtrics, a web survey company in the USA. Qualtrics has stringent security measures for data (locking, surveillance, and encryption) that can be found at this link http://www.qualtrics.com/security-statement. Qualtrics servers are housed in Europe; therefore data and security are compliant with the stringent guidelines of the European Union via the Safe Harbor Agreement and are protected from the US Patriot Act. Consent forms will not be connected with participant responses. Raw data will be stored electronically on password-protected computers in locked offices of Dr. Haji. The raw data will be destroyed after 7 years.

Your participation is completely voluntary. You are free to withdrawal at any time without penalty. To withdraw from the study, click on “Exit this Survey”. You will still receive your compensation if you choose to withdraw.

If you have any questions regarding this study you may contact the researcher at bc_gougeon@laurentian.ca or Dr. Haji, PhD at rhaji@laurentian.ca. If you have questions concerning the ethics of the research, you may contact the Research Officer at Laurentian University, at (705) 675-1151 x 2436 or toll free at 1-800-461-4030 x 2436 or by e-mail at (ethics@laurentian.ca).

By clicking on Continue, you are consenting to participate in this study now. You may want to print a copy of this form for your records before clicking on “continue”. 
Informed Consent Letter – participants not eligible for psychology credit

Study: Laurentian Experiences
Researcher: Brooke Gougeon - Laurentian University
bc_gougeon@laurentian.ca

Thank you for your interest in this study. Your participation will involve watching a short (approximately 4 minute) video and then completing a series of short questionnaires. The information collected will remain anonymous and confidential. This research project has been approved through the ethics department at Laurentian University. Participation in this research carries no inherent risk.

Participation in this research project will require approximately 20 minutes of your time. As compensation for participation, you are eligible to enter your name in a draw for an iPad mini. Your name will not be linked to your responses.

This online survey is hosted by Qualtrics, a web-based company in the USA. Qualtrics has stringent security measures for data (locking, surveillance, and encryption) that can be found at this link http://www.qualtrics.com/security-statement. Qualtrics servers are housed in Europe; therefore data and security are compliant with the stringent guidelines of the European Union via the Safe Harbor Agreement and are protected from the US Patriot Act. Consent forms will not be connected with participant responses. Raw data will be stored electronically on password-protected computers in locked offices of Dr. Haji. The raw data will be destroyed after 7 years.

Your participation is completely voluntary. You are free to withdrawal at any time without penalty. To withdraw from the study, click on “Exit this Survey”. You will still receive your compensation if you choose to withdraw.

If you have any questions regarding this study you may contact the researcher at bc_gougeon@laurentian.ca or Dr. Haji, PhD at rhaji@laurentian.ca. If you have questions concerning the ethics of the research, you may contact the Research Officer at Laurentian University, at (705) 675-1151 x 2436 or toll free at 1-800-461-4030 x 2436 or by e-mail at (ethics@laurentian.ca).

By clicking on Continue, you are consenting to participate in this study now. You may want to print a copy of this form for your records before clicking on “continue”.
Informed Consent Letter – Psychology students

Study: Laurentian Experiences
Researcher: Brooke Gougeon - Laurentian University
bc_gougeon@laurentian.ca

Thank you for your interest in this study. Your participation will involve watching a short (approximately 4 minute) video and then completing a series of short questionnaires. The information collected will remain anonymous and confidential. This research project has been approved through the ethics department at Laurentian University. Participation in this research carries no inherent risk.

Participation in this research project will require approximately 20 minutes of your time. As compensation for participation, you will receive 0.5% credit toward your psychology course if you registered for the study through Sona Research Participant Pool, or you can enter your name in the raffle for an iPad mini. Note: You can participate in this study only once for either credit or draw entry. Your name will not be linked to your responses.

This online survey is hosted by Qualtrics, a web survey company in the USA. Qualtrics has stringent security measures for data (locking, surveillance, and encryption) that can be found at this link http://www.qulatrics.com/security-statement. Qualtrics servers are housed in Europe; therefore data and security are compliant with the stringent guidelines of the European Union via the Safe Harbor Agreement and are protected from the US Patriot Act. Consent forms will not be connected with participant responses. Raw data will be stored electronically on password-protected computers in locked offices of Dr. Haji. The raw data will be destroyed after 7 years.

Your participation is completely voluntary. You are free to withdrawal at any time without penalty. To withdraw from the study, click on “Exit this Survey”. You will still receive compensation if you choose to withdraw.

If you have any questions regarding this study you may contact the researcher at bc_gougeon@laurentian.ca or Dr. Haji, PhD at rhaji@laurentian.ca. If you have questions concerning the ethics of the research, you may contact the Research Officer at Laurentian University, at (705) 675-1151 x 2436 or toll free at 1-800-461-4030 x 2436 or by e-mail at (ethics@laurentian.ca) or the Research Ethics Board Chair, Dr. Richard Rinaldo, (705) 728-1968 x 5583 (Richard.Rinaldo@GeorgianCollege.ca) at Georgian College.

By clicking on Continue, you are consenting to participate in this study now. You may want to print a copy of this form for your records before clicking on “continue”.
Informed Consent Letter – non - Psychology students

Study: Laurentian Experiences
Researcher: Brooke Gougeon - Laurentian University
Thank you for your interest in this study. Your participation will involve watching a short (approximately 4 minute) video and then completing a series of short questionnaires. The information collected will remain anonymous and confidential. This research project has been approved through the ethics department at Laurentian University. Participation in this research carries no inherent risk.

Participation in this research project will require approximately 20 minutes of your time. As compensation for participation, you are eligible to enter your name in a draw for an iPad mini. Your name will not be linked to your responses.

This online survey is hosted by Qualtrics, a web survey company in the USA. Qualtrics has stringent security measures for data (locking, surveillance, and encryption) that can be found at this link http://www.qualtrics.com/security-statement. Qualtrics servers are housed in Europe; therefore data and security are compliant with the stringent guidelines of the European Union via the Safe Harbor Agreement and are protected from the US Patriot Act. Consent forms will not be connected with participant responses. Raw data will be stored electronically on password-protected computers in locked offices of Dr. Haji. The raw data will be destroyed after 7 years. Your participation is completely voluntary. You are free to withdrawal at any time without penalty. To withdraw from the study, click on “Exit this Survey”. You will still receive your compensation if you choose to withdraw.

If you have any questions regarding this study you may contact the researcher at bc_gougeon@laurentian.ca or Dr. Haji, PhD at rhaji@laurentian.ca. If you have questions concerning the ethics of the research, you may contact the Research Officer at Laurentian University, at (705) 675-1151 x 2436 or toll free at 1-800-461-4030 x 2436 or by e-mail at (ethics@laurentian.ca) or the Research Ethics Board Chair, Dr. Richard Rinaldo, (705) 728-968 x 5583 (Richard.Rinaldo@GeorgianCollege.ca) at Georgian College.

By clicking on Continue, you are consenting to participate in this study now. You may want to print a copy of this form for your records before clicking on “continue”.

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Laurentian University
Université Laurentienne
Appendix I
Demographic Questions

Please indicate your gender.
___ Male ___ Female

Please indicate your program of study at Laurentian

Please indicate your age
___ under 20
___ 20-25
___ 26-30
___ 31-35
___ 36-40
___ over 40

Are you a full-time or part-time student?
___ part-time ___ full-time

Please indicate the primary location of your studies.
___ Sudbury campus
___ Barrie campus
___ Orillia campus
___ Distance education
Appendix J
Comment Section

We are interested, if you would like to tell us, if you can guess the nature of the study.

If you would like to comment on your experience of participating in this study, or any related thoughts you may have based on this study, please use the space provided to express your thoughts.
Appendix K
Ingroup Character Identification

We are interested in the degree to which you feel you are similar to each of the characters depicted in the video. Below you see sets of circles. In each set, one circle represents you; the other circle represents the character from the video. The sets of circles depict varying degrees of connectedness, where some sets show no connectedness and others show a great deal of overlap.

Choose the set that best represents your feeling of similarity to Michael Nadjiwon (Aboriginal young man in the video).

Choose the set that best represents your feeling of similarity to Matthew Thompson (White young man in the video).
Appendix L
Infrahumanization Scale

From the list below, please tick the characteristics that you believe describe Aboriginal peoples well. You may choose as many as you wish, however please limit your choices to descriptors you believe to be especially relevant to Aboriginal peoples.

___ Compassion___ Fury
___ Surprise___ Enjoyment
___ Pain___ Panic
___ Optimism___ Caring
___ Humiliation___ Hopelessness
___ Calmness___ Tenderness
___ Shame___ Excitement
___ Love___ Fright
___ Anger___ Pleasure
___ Regret___ Hope
___ Fear___ Suffering
___ Passion___ Happiness
___ Guilt___ Remorse
___ Disgust___ Elation

From the list below, please tick the characteristics that you believe describe White peoples well. You may choose as many as you wish, however please limit your choices to descriptors you believe to be especially relevant to White peoples.

___ Compassion___ Fury
___ Surprise___ Enjoyment
___ Pain___ Panic
___ Optimism___ Caring
___ Humiliation___ Hopelessness
___ Calmness___ Tenderness
___ Shame___ Excitement
___ Love___ Fright
___ Anger___ Pleasure
___ Regret___ Hope
___ Fear___ Suffering
___ Passion___ Happiness
___ Guilt___ Remorse
___ Disgust___ Elation
Appendix M
Intergroup Anxiety Scale

Please rate the extent to which you would feel each of the following feelings when interacting with someone who is Aboriginal.

<table>
<thead>
<tr>
<th></th>
<th>Very Unlikely</th>
<th>Unlikely</th>
<th>Undecided</th>
<th>Likely</th>
<th>Very likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relaxed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Awkward</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comfortable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Threatened</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At ease</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tense</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix N
Discrimination: Resource Allocation

The Next 50 Campaign at Laurentian University includes the building of an Indigenous Sharing and Learning Center, Modernizing classrooms for the Faculty of Management, and lab and equipment purchase for Bharti School of Engineering.

Please indicate how you would allocate $100 towards each of these initiatives. You may split up the $100 among the three initiatives. You may split up the $100 among the three initiatives, but collectively you may only allocate a total of $100.

________ Indigenous Sharing and Learning Center
________ Bharti School of Engineering (lab and equipment)
________ Faculty of Management (modernize classrooms)
### Table 3

**Summary for Intercorrelations for Scores**

<table>
<thead>
<tr>
<th>Measure</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Anxiety</td>
<td>--</td>
<td>-399**</td>
<td>-269*</td>
<td>398**</td>
<td>-253*</td>
<td>.208*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Warmth</td>
<td>--</td>
<td>--</td>
<td>254*</td>
<td>-388**</td>
<td>.113</td>
<td>-127</td>
<td>-216*</td>
<td>.282*</td>
</tr>
<tr>
<td>3. Efficacy</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>-1.90</td>
<td>.086</td>
<td>.043</td>
<td>-111</td>
<td>.153</td>
</tr>
<tr>
<td>4. Threat</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>-223*</td>
<td>.156</td>
<td>.084</td>
<td>-145</td>
</tr>
<tr>
<td>5. Indigenous</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>-421**</td>
<td>-012</td>
<td>-126</td>
</tr>
<tr>
<td>6. Bharti</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>.097</td>
<td>.133</td>
</tr>
<tr>
<td>7. Angst</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>-266</td>
</tr>
<tr>
<td>8. Ingroup ID</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td></td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level, 2-tailed  
** Correlation is significant at the 0.01 level, 2-tailed

### Ingroup Identification

**Inclusion of Other in Self Scale (IOS).** (Aron, Aron, & Smollan, 1992). IOS is a well-known scale, which measures the degree in which a person feels similar to another. Participants were asked to indicate the level of similarity they felt towards each of the actors in the videos, by choosing one of 5 sets of overlapping circles ranging from no overlap (*no similarity*) to almost total overlap (*high similarity*). The degree to which an individual identifies with the watched other has been used extensively in indirect contact studies (Haji & Lalonde, 2009; Wright et. al., 1997) and more specifically in vicarious contact research (Eyal & Rubin, 2003; Joyce & Harwood, 2012; Ortiz & Harwood, 2007). The scale was found to have high test-retest reliability and to correlate strongly with other measures of closeness (Aron et. al., 1992). (Appendix K)

**Results:**
Analysis supported previous findings (Ortiz & Harwood, 2007) where participants who had strong identification with the in-group character (White actor) were more likely ($M = 86.0, SD = 12.79$) to express warmth towards Aboriginal Peoples than those who had no
or weak identification with the in-group character ($M = 73.24$, $SD = 13.17$); $F(1,25) = 4.43$, $p = .045$, $\eta^2_p = .15$.

Infrahumanization. Infrahumanization scale (Leyens, Rodriguez-Perez, Rodrigues-Torres, Gaunt, Paladino, Vaes, & Demoulin, 2001) is a subtle measure of intergroup attitudes. It compares the relative difference in attributing human or secondary characteristics to the ingroup and the outgroup. Participants are asked to choose, from a list of 28 characteristics taken from McKeown, Cairns, Stringer, & Rae (2012), containing both primary emotions; considered to be shared by both humans and animals, and secondary emotions; considered more uniquely human, that describe and are especially relevant to both Aboriginal Peoples, and White Peoples. The 28-word list is divided into four groups of words: 7 primary positive, 7 primary negative, 7 secondary positive, and 7 secondary negative. Assigning secondary emotions is in line with participants assigning a higher degree of humanity to the group. Infrahumanization bias was found when groups (British & White Americans) perceived they were responsible for atrocities directed at the outgroup (Australian Aborigines & Native Americans) (Castano & Giner-Sorolla, 2006), and also when exposed to pictures of human violence (Delgado, Rodrigues-Perez, Vaes, Leyens, & Betancor, 2009). Infrahumanization has been associated as both cause and consequence of prejudice (Castano & Giner-Sorolla, 2006), and suggested that Infrahumanization is an unconscious psychological process that reduces stress associated with guilt. (Appendix L)

Results:

Paired sample t-test indicated White participants assigned more secondary emotions to the ingroup ($M = 4.23$, $SD = 3.42$) than the outgroup ($M = 3.71$, $SD = 3.21$), $t = (89) =$
2.72, \( p = .008 \). These results support previous research, suggesting individuals will assign more humanlike qualities to their own ingroup compared to the outgroup (Gaunt, Leyens, & Demoulin, 2002; Leyens et. al., 2001) suggesting the outgroup is seen as “less human” than the ingroup. White participants evaluate Aboriginal Peoples as “less human” than their ingroup.

**Anxiety.** Anxiety during intergroup contact is thought to interfere with normal behavioral, cognitive and affective processes (Greenland & Brown, 1999; Stephan & Stephan, 1985). Stephan & Stephan (1985) hypothesized that even the mere thought of interacting with an outgroup member can provoke fear of embarrassment, rejection, and discrimination, arousing anxiety, which may lead to outgroup avoidance or defensive behavior (Islam & Hewstone, 1993). Research has supported this hypothesis, including Paolini, Hewstone, Cairns & Voici (2004) study that found a positive association of reported prejudice and anxiety levels among Northern Irish Students.

The Intergroup anxiety measure found in previous intergroup research (e, Mummendy & Wright, 2011; Ortiz & Harwood, 2007) is adapted from Stephan and Stephan (1985). Participants are asked to consider, on a scale of 1 to 5 (1 = very unlikely, 5 = very likely) the extent they would feel relaxed, awkward, comfortable, threatened, at ease, and tense, if they were interacting with an Aboriginal person: relaxed, comfortable, and at ease are reverse coded for scoring. The higher scores indicate greater uncertainty or anxiety. (Appendix M)

**Results:**

Factorial ANOVA yielded no statistically significant findings, however, a number of correlations were found between anxiety and other measures. Positive correlations
included; anxiety and threat, and anxiety with $ allocation to Bharti. This indicates the
greater the stated anxiety of interacting with an Aboriginal person, the greater the stated
perceived threat of Aboriginal People. Also, when anxiety levels were stated as high,
participants allocation of money to the non-Aboriginal endeavor at Laurentian was
higher. Negative correlations included; anxiety and efficacy expectancy, and warmth and
$ allocated to the Indigenous Sharing and Learning Centre. Thus indicating when
participants had high levels of anxiety, they had low levels of efficacy expectancy, or less
confidence in future successful interactions with Aboriginal Peoples. Further, when
participants stated more warmth towards Aboriginal people, they allocated more money
towards the Aboriginal fund-raising endeavor at Laurentian. (See Table 3.)

Resource Allocation. Individuals were asked to allocate $100 among three
randomly ordered initiatives of the Next 50 Campaign; Bharti School of Engineering (lab
& equipment), Indigenous Sharing and Learning Centre, and the Faculty of Management
(modernize classrooms). (Appendix N)

Results:

Significant interactions were revealed with factorial ANOVA analysis for
Allocation of money to the Bharti school of Engineering depending on the Video
condition watched and previous Aboriginal friendship experiences: Number of
Aboriginal friendships, $ (2,83) = 5.55, p = .005 \eta^2 = .118$ (figure 4) and Degree of
closeness with an Aboriginal person, $F (2,46) = 3.74, p = .031, \eta^2 = .140$ (figure 5).

Number of Aboriginal Friendships – Quantity

Simple effects analysis found that participants with no Aboriginal friendships
were more likely to give more money to the Bharti School of Engineering when they
watched the Control Video ($M = 45.36$, $SD = 15.15$) than those who watched the Parasocial Video ($M = 28.05$, $SD = 5.61$), $p = .026$. These results support video intervention as a means for influencing behaviour, where those not exposed to the intervention were more likely to allocate money to the non-Aboriginal fund-raising endeavor, than those participants who were exposed to the parasocial video intervention. In other words, those participants with no previous outgroup friendships were more likely to show favoritism to the ingroup (allocate more money to the non-Aboriginal endeavor), before they watched the video intervention.

Conversely, participants with previous Aboriginal friendships were more likely to allocate more money to Bharti ($M = 43.36$, $SD = 3.15$) when they viewed the Parasocial Video compared to those with no previous Aboriginal friendships ($M = 28.05$, $SD = 5.61$). Additionally, participants who had previous Aboriginal friendship experiences allocated more money to Bharti when viewing the Parasocial Video than those watching either the Control Video, $p = .005$, or the Parasocial Vicarious Video ($M = 30.36$, $SD = 3.15$), $p = .005$. In other words, those with previous Aboriginal friendship experiences showed more ingroup favoritism when watching the parasocial video. This poses a problem in deciding which video intervention would be most successful to promote intergroup harmony. The parasocial video seems to promote more positive intergroup behaviours for those with no previous outgroup friendships, but promotes less positive behaviours from those with previous friendships.
Figure 4.

None give more to Bharti and compared to those with previous Aboriginal friendships ($M = 31.97, SD = 14.89$), $F(1,83) = 5.45, p = .022$.

Quality of Previous Aboriginal Friendship Experience

Post hoc analysis of behavior of participants quality of Aboriginal friendships mirrored those of participants quantity of friendships such that participants with close/extremely close Aboriginal friendships were more likely to allocate more money to Bharti ($M = 50.28, SD = 20.56$) when viewing the Parasocial Video than participants with no/distant Aboriginal friendships ($M = 31.38, SD = 10.72$), $F(1,46) = 4.85, p = .033$. Similarly, more money was allocated to Bharti by participants with close/extremely close friendships when viewing the Parasocial video compared to those viewing either the Control Video ($M = 30.79, SD = 15.29$), $p = .009$, or the Parasocial Vicarious Video ($M = 30.57, SD = 6.48$), $p = .026$.

Interestingly for both analyses, those participants with previous experiences with Aboriginal people were more likely to allocate more to the non-Aboriginal endeavor in
the parasocial condition than the control or vicarious condition. Something was activated in the parasocial condition (watching the actors separately) where participants demonstrated favoritism towards the ingroup endeavor, that was not activated with no actors or when the actors we together.

![Bar chart showing allocation to Bharti x Quality of Aboriginal friendships x Video Condition]

**Figure 5.**

**Comment on Experience & Thoughts**

Participants were invited to comment on the experience of participating in the study or related thoughts. Qualitative analyses were conducted on comments made by those participants choosing to respond to this optional question \((n = 58)\). All participants, regardless of ethnicity, were included in the analysis. Comments commonly cited included statements of interest \((n = 8)\), and statements that participation provoked thought or a self-awareness of attitudes \((n = 9)\). Other interesting themes included moral statements \((n = 5)\), statements of personal experiences of discrimination \((n = 2)\), and statements that participation in the study made the participant “uncomfortable” \((n = 2)\). Many students indicated they “enjoyed” participating in the study.
Of the students reporting interest in study some expressed interest in participation “It was interesting and fun” while others expressed interest in the nature or results of the study “I’m interested about what exactly the study is about”. Examples of statements from participants indicating participation in the study provoked thought or self-awareness of attitudes include; A student from the Barrie campus, of Latin American ethnicity stated: “I was intrigued at the amount of thinking I had to do when thinking about my tolerance towards people and if it and anything to do with their ethnicity”. A Mètis student from Sudbury stated: “This survey makes you think about how you perceive aboriginal people. I realized that I am discriminatory towards aboriginal people, due to my past experiences living in a small northern community with a high population of Aboriginal people”. A Japanese/White student from Sudbury stated: “I enjoyed seeing and recognizing that I have my own perceptions of different ethnic groups, and I was unaware until filling out the answers to the questions”. A White student from Sudbury stated: “I’m glad I was given the opportunity to complete this survey it opened my eyes as to how I act towards aboriginal peoples, that I should alter those relationships and try to meet more aboriginal people”. Interestingly, 4 out of 9 of the students commenting on the study provoking awareness of attitudes were from visible ethnic minorities. Previous research on ethnocultural empathy, found non-White participants were more aware and understanding of peoples’ experiences from different racial or ethnic groups (Wang, Davidson, Yakushko, Bielstein-Savoy, Tan, & Bleier, 2003)

Five participants made moral statements when asked to comment on their experience or thoughts related to their experience of participation. One South Asian student from Sudbury stated: “I felt good participating in this study. I am a person that
doesn’t look at race. I think we are all one race; the human race”. A White student stated, “… in most circumstances both ethnicities will not always receive the same answers. No matter how much you accept other ethnicities, it shows that we are still different”.

Two participants, one White and one First Nations & White, expressed how they had themselves experienced discrimination. The White participant stated: “It was a great experience. As a white student taking a Aboriginal course, I feel very intimidated as I feel as tough they don’t want me learning the culture and are not accepting of me because I am white”. The First Nations/White student indicated she experienced discrimination by both White & Aboriginal Peoples. She stated she was “made fun of … for being darker than all the white kids” where in university in the Native Studies classes, when she “identified myself as being native comments were made about me being a white girl”.