

The Effects of System Threat on Intergroup Interaction

by

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Abstract

Individuals defend and rationalize social systems in order to maintain the belief that the world in which they live is fair and good. This justification often involves seeing intergroup inequality as legitimate and holding negative attitudes toward lower status groups. Although research on system justification is plentiful, the effects of perceived threat to the system on intergroup interaction behavior and dynamics have remained unexamined. With ethnic diversity increasing in North America, it is imperative that we understand the factors that promote more positive (and negative) intergroup interactions. Across three studies I examined individuals' reactions to system threatening information versus low threat in the context of an intragroup or intergroup interaction. In general, priming dominant group members with system threat (versus low threat) led to less negative intergroup interaction behavior. Specifically, being primed with system unfairness led dominant group members in Study 1 to express more positive other-directed remarks during a written exchange with an ostensible outgroup member. Study 2, conducted with a different minority group than Study 1, found that dominant group members feel more guilt when interacting with minority group members versus members of their own group in the face of system threat. Finally, a face-to-face intergroup interaction study replicated the positive behavioral effects of salient system threat found in Study 1, this time manifest in increased nonverbal friendliness and self-disclosure for both pair members. These findings suggest that system threat instantiated in an interaction setting leads dominant group members toward exhibiting more positive behavior to minority group members that benefits both parties involved, rather than toward derogation. Implications for social change initiatives are discussed.

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The Effects of System Threat on Intergroup Interaction

Ethnic diversity is a fundamental part of North American life. With diversity in Canada's population growing at a rapid rate, interaction between racial groups is becoming more and more common. Unfortunately, despite this increased frequency of intergroup contact, such encounters do not always run smoothly and prejudice and discrimination still persist.

Much of the past research on intergroup encounters aims to understand individuals' attitudes towards outgroup members. However, attitudes alone have limited utility in explaining negativity as they may be unrelated (Goff, Steele, & Davies, 2008), or even negatively related, to behavior (e.g., Vorauer & Turpie, 2004). For example, concerns about appearing prejudiced can have the ironic effect of inducing distancing behavior (Goff et al., 2008), especially for lower-prejudice individuals (Vorauer & Turpie, 2004). Likewise, perceiving oneself as tolerant can lead individuals to be complacent and reduce efforts to try to express positive feelings toward outgroup members (Vorauer, Martens, & Sasaki, 2009).

Recent research has focused instead on investigating situational factors that can affect how intergroup interactions unfold. For example, efforts to understand negative intergroup behavior have examined the effects of interaction goals (Goff et al., 2008), perceived partner responsiveness (Butz & Plant, 2006), evaluative concerns (Vorauer & Turpie, 2004), currently accessible cross-group friendships (e.g., Page-Gould, Mendoza-Denton, Alegre, & Siy, 2010; see also Page-Gould, Mendoza-Denton, & Tropp, 2008), and salient intergroup ideology (e.g., Richeson & Nussbaum, 2004; Vorauer, Gagnon, Sasaki, 2009; Wolsko, Park, Judd, & Wittenbrink, 2000). This line of research shows that the nature of the context in which one experiences an intergroup exchange can impact how the exchange unfolds.

One particularly interesting factor that might affect intergroup interaction dynamics is whether the motive to protect the status quo is currently activated. The idea that people get what they deserve and deserve what they get is an important one in the psychology of justice and legitimacy. Indeed, the central tenet behind Lerner's (1965, 1977, 1980; see also Miller 1977) just world theory is that people want to believe that the world that they live in is fair and good and they will therefore rationalize events to fit with this belief.

Research investigating just world theory shows that there are a number of ways in which individuals can respond when justice appears to be violated (see Lerner, 1980). Specifically, individuals may deny or withdraw from the situation. For example, they may avoid poorer areas of town or leave the scene of an accident before knowing the outcome to either assume all was well or block it from memory. They may reinterpret the outcome of a negative event so as to decide that it was a good "learning experience" and thus, justified. Individuals may also blame or derogate victims so that they are seen as responsible for their own misfortune or interpret the character of victims as deserving of poorer outcomes given something they have done or a personal quality they possess.

System justification theory similarly proposes that individuals are motivated to rationalize and defend the way things are in order to perceive the existing social system as fair and legitimate (see Jost & Hunyady, 2002). This can be a conscious or non-conscious process by which individuals believe that they live in a world where social systems are just and free from wrongdoing. Although influenced by just world theory, system justification theory differs in that it encompasses a wider variety of causes and consequences, rejecting the idea that the belief in a just world is driven solely by individuals' need to perceive control over their environment (Lerner, 1980). It incorporates motivations to maintain a positive self- and group-image,

although these may be sacrificed to maintain a sense that the system is fair. That is, the theory maintains that both advantaged and disadvantaged group members may engage in system-justifying tendencies, even at the expense of their own or their group's interest. Furthermore, it proposes that individuals are focused not on *justice* per se but on *justification* of the status quo and the need to preserve the belief in the legitimacy of the social system (Jost & Hunyady, 2002). Overall, system-justifying tendencies can serve well to decrease negative affect and increase satisfaction with one's situation (Jost, Pelham, Sheldon, & Sullivan, 2003). However, this often entails viewing inequality as being necessary and legitimate.

System Justification in Intergroup Contexts

The need to perceive fairness is fundamental and is particularly likely to be activated in the context of unequal intergroup relations (Jost, Pelham, & Carvallo, 2002). System-justifying motives can have very different consequences for higher- and lower-status individuals. In particular, research shows that system justification leads members of higher-status groups to experience increased self-esteem, well-being, and ingroup favoritism. In contrast, for members of lower-status groups, viewing a system as fair means accepting the inferior position ascribed to their group, often leading to lowered self-esteem and well-being, and to actually favoring the outgroup (see Jost & Hunyady, 2005). For these individuals, this counterintuitive tendency to support the status quo allows for ideological dissonance reduction and may alleviate some of the discomfort associated with the social inequality with which they are faced (Jost et al., 2003).

To make status differences seem fair and appropriate and to preserve a sense that the system is legitimate, individuals often use stereotypes. For example, research shows that individuals perceive the system to be more fair and legitimate after being exposed to complementary stereotypes exemplars (e.g., poor but happy; rich but miserable) than after being

exposed to noncomplementary exemplars (Kay & Jost, 2003). That is, to achieve a sense of fairness, individuals will ascribe more favorable, compensatory characteristics to disadvantaged individuals and unfavorable characteristics to advantaged individuals. This way, nobody is seen as “having it all” or as having nothing at all and balance is restored.

The system justification motive can also be quite powerful in arousing victim derogation. For example, for members of higher status groups, perceptions of permeable group boundaries are positively related to stereotyping and prejudice toward lower-status group members: To protect and maintain their advantaged position in the face of the threat posed by an unstable hierarchy, members of higher status groups view members of lower status groups as deserving of their inferior position in society (Johnson, Terry, & Louis, 2005; see also Jost & Banaji, 1994). In addition, victim-derogating stereotypes are often used to satisfy system justification needs when the negative trait is causally related to the outcome (Kay, Jost, & Young, 2005). For example, being poor has been linked to perceptions of also being lazy and unintelligent (Jost & Banaji, 1994) and being obese has been linked to perceptions of individuals' lack of self-control (Crandall, 1994; Quinn & Crocker, 1999). Thus, individuals can maintain the belief that they can avoid these negative attributes if they avoid the negative behaviors that lead to them.

Given the powerful effects that system threat can have on individuals' perceptions of outgroup members, it would seem that a threat to the system should have a considerable effect on how individuals interact with outgroup members. For example, how do individuals react when a minority group member claims mistreatment or attention is called to the unnecessary suffering of outgroup members through result of something the ingroup has done? Surprisingly, however, implications of system threat for actual intergroup interaction have not been examined. This was the key goal of the present research. Given past research relating threat to outgroup derogation, it

seems likely that when a system threat is instantiated in the context of an intergroup interaction these negative attitudes may then lead to more negative behavior and a more negative interaction overall.

Although it is important to test this seemingly straightforward prediction, I propose that there is an alternative type of reaction that may occur. Specifically, the potential for evaluation involved in actual intergroup interaction may lead the system justification motive to have different effects here. Intergroup contexts can trigger an egocentric mindset in which individuals focus more on how they are viewed than on making judgments about outgroup members (Vorauer & Sasaki, 2009). Thus, rather than responding to system threat by activating outgroup stereotypes and derogating the outgroup member to achieve a sense of fairness, individuals may instead feel guilt and activate meta-stereotypes (i.e., stereotypes regarding how the outgroup views the ingroup) as they imagine the outgroup member's likely perspective on them and their privileged position – a response which is much more likely to arise in the context of an actual intergroup exchange than in the methodologies used in prior research, which involve evaluating outgroup members who are not actually present. Although research suggests that individuals in higher positions tend to like their advantaged standpoint (e.g., Branscombe & Wann, 1994), in the face of system threat this positive feeling may be hindered if they imagine that their position will be seen as illegitimately superior by members of disadvantaged groups, such that feelings of group-based guilt are aroused (Doosje, Branscombe, Spears, & Manstead, 1998; Swim & Miller, 1999). Thus, in the context of intergroup interaction individuals belonging to advantaged groups may evidence guilt rather than outgroup derogation in response to system threat because of the salience of the outgroup's perspective.

The behavioral consequences of this guilt, if it arises, are somewhat unclear. The very nature of guilt indicates a self-focus as individuals consider their advantaged situation relative to those less fortunate than themselves (Baumeister, Reis, & Deleapaul, 1995; Iyer, Leach, & Crosby, 2003). This preoccupation with self and how one appears to others may trigger negative disrupted behavior along the lines of evaluative concerns, particularly if accompanied by a focus on the outgroup's ostensible perspective (Vorauer et al., 2009). Indeed, focusing on the self during an interaction can lead to somewhat awkward, unnatural, and even negative interactions. For example, research has revealed that self-focus in the form of evaluative concerns can lead to a plethora of unfavorable effects including cognitive depletion (Richeson & Shelton, 2003; Richeson & Trawalter, 2005), increased anxiety and avoidance (Stephan & Stephan, 1985), and less openness and less friendly behavior (Vorauer & Turpie, 2004). Concerns with group-based rejection have also been shown to have a negative effect on students' well-being and academic experiences (Mendoza-Denton, Downey, Purdie, Davis, & Pietrzak, 2002; Mendoza-Denton & Page-Gould, 2008). Further, lower-prejudice individuals who experience guilt over discriminatory responses to outgroup members show increases in self-regulation and behavioral inhibition (Devine, Monteith, Zuwerink, & Elliot, 1991; Monteith, 1993; Monteith, Ashburn-Nardo, Voils, & Czopp, 2002). Yet this self-focused preoccupation may be more likely to hurt than to help intergroup interaction encounters for lower-prejudice individuals, whose default behavior is positive.

However, Doosje et al. (1998) found that individuals are especially likely to feel group-based guilt and recommend financial compensation for outgroup members when their group has acknowledged past intergroup transgressions. This suggests that the activation of feelings of guilt may lead advantaged group members to react positively to the disadvantage in order to

compensate. Indeed, when intergroup inequality is framed in a way that highlights the dominant group's privilege rather than the minority group's disadvantage, advantaged group members tend to activate feelings of guilt and report less prejudicial attitudes (Powell, Branscombe, & Schmitt, 2005). Baumeister and colleagues (1994) suggest that guilt serves a prosocial function in that it activates a need to rectify the situation, which leads to more attention paid to those who have been wronged, increased relationship enhancing behaviors, and an overall increase in social bonds (see also Baumeister, Stillwell, & Heatherton, 1995). Similarly, individuals who experience such guilt are more likely to favor compensation for disadvantaged group members, such as increased support for reparations (Brown, Gonzalez, Zagefka, Manzi, & Čejajjié, 2008; Zebel, Doosje, & Spears, 2009), compensatory affirmative action programs (Iyer et al., 2003), and government apologies (McGarty, Pedersen, Leach, Mansell, Waller, & Bliuc, 2005). These findings suggest that individuals may react more positively to outgroup members when feelings of guilt are activated, to try to compensate for previous transgressions.

Thus, two patterns of results seem plausible with respect to the guilt induced by system threat. According to research on the neural correlates of guilt-induced behavior, guilt can indeed promote both compensation and evaluative concerns (Amodio, Devine, & Harmon-Jones, 2007). Through providing false feedback to suggest that individuals holding egalitarian beliefs had responded with prejudice, Amodio and colleagues found that initial notification of transgressions led to a disruption in behavior, causing individuals to reduce approach tendencies and watch themselves. This was then followed by a motivational tendency toward reparatory behaviors to make up for past transgressions when such an opportunity was present. Thus, to the extent that the interaction context allows for it, individuals should exhibit more positive behavior in attempt to alleviate feelings of guilt. As mentioned above, one key tenet of system justification theory is

that this motive can override one's own self-interest in favor of supporting the status quo. Perhaps a threat to the system differs from a threat to an individual directly in that it does not invoke a focus on the self, per se, but instead motivates individuals to rectify and defend the social system, allowing guilt and evaluative concern to have more positive reparatory-type effects here.

Thus, I propose that guilt will lead to a more positive interaction through individuals' desire to reduce any discomfort felt as a result of the ingroup's wrongdoing, perhaps also increasing support for social action towards more positive intergroup relations. That is, if the guilt that arises in the interaction triggers lower perceived legitimacy and less defense of the system (e.g., less outgroup derogation), it may also lead to a greater desire for and openness to social change. Positive contact experiences alone are not necessarily the ultimate goal of minority group members (Saguy, Tausch, Dovidio, & Pratto, 2009). Emphasizing inequality and injustice in the context of intergroup interaction may have the positive effect of increasing awareness of a need for collective action. This would be particularly important in contrast to the effects resulting from a victim derogation account, which would instead lead to a reduced desire for change. Thus, I propose that the results of my studies will reveal that it is much more effective for challenges to the social system and evidence of unfairness to be advanced in the context of intergroup interaction than outside of it. That is, system threat may lead to more positive outcomes in the context of interaction because here it is more likely to trigger guilt.

Research Paradigm and Hypotheses

The present research examined the effects of system threat inside versus outside of intergroup interaction. Highlighting how minority group members have been treated unfairly was expected to constitute a system threat such that participants would behave differently toward a

member of the disadvantaged group after receiving this information in comparison to hearing that minority group members have been treated more fairly in recent years (low threat).

Generally speaking, I hypothesized that a threat to the system would lead to less negative behavior towards an interaction partner who is a member of a disadvantaged outgroup. More specifically, it was expected that being exposed to information highlighting unfairness in the system would lead dominant group members to experience guilt and evaluative concern over the assumed perspective of the outgroup member regarding their privileged status. This in turn should lead to more positive interaction behavior (see Figure 1). Other outcomes on which positive effects of guilt might be evident were also examined, such as intergroup attitudes and support for social change policies.

To test these possibilities, I examined individuals' evaluative reactions with measures of stereotype and meta-stereotype activation, outgroup derogation, evaluative concern, and guilt. Behavioral reactions were examined via coders' ratings of inhibition (e.g., insecurity, self-consciousness), anxiety, warmth (e.g., warmth, liking, responsiveness, positive other-directed remarks), and positive and negative mood states experienced during the interaction. Highlighting system threat was expected to lead dominant group members to evidence more guilt, meta-stereotype activation, and evaluative concern, resulting in a need to rectify these uncomfortable feelings through exhibiting more warmth and positivity toward the outgroup interaction partner and expressing more positive (and less negative) mood toward him or her. Because the activation of guilt and evaluative concern could potentially also give way to more anxiety and inhibition, I expected to find higher levels of anxiety and inhibition under system threat during intergroup interaction. Individuals' collective self-esteem was also assessed to examine whether public collective self-esteem was lower in the threat condition, indicating that system threat leads

individuals to assume others view their ingroup less favorably. In addition, I examined individuals' attitudes toward the outgroup, expecting to find null or positive effects for these attitudinal measures, which would be more consistent with the guilt and evaluative concern account than the negative attitudes that would be expected with the outgroup derogation account. Such a pattern of results would indicate that in the context of actual intergroup exchanges highlighting unfairness in the system does not lead to derogation of outgroup members but that it fosters more positive behavior due to the activation of guilt.

Even in the absence of any salient threat (i.e., low threat), it was expected that individuals might experience some level of meta-stereotype activation and evaluative concern given the intergroup context. However, these reactions should be much stronger in the context of salient system threat. In the context of low threat a sense that the system is fair might lead individuals to feel that they need not put in the extra effort to make up for any wrongdoing, which can actually lead to less positive behavior (e.g., Vorauer & Turpie, 2004).

The moderating effect of the intergroup interaction context was examined by assessing responses in the context of intragroup interaction as well. In the context of system threat, levels of guilt and meta-stereotype activation were expected to be higher in intergroup than intragroup interaction because of the effects of the physical presence of an outgroup member and thus the salience of the outgroup's perspective. This was expected to then lead to more positive attitudes toward the outgroup and stronger support for social change policies. Although the intragroup condition was included primarily to serve as a control condition in assessing outcomes such as meta-stereotype activation and guilt, intragroup behavior was also assessed on an exploratory basis and was expected to generally be more positive than intergroup behavior.

I investigated my hypotheses over a series of three studies. Dominant group members reviewed an article about the fair or unfair (Studies 1 and 3) treatment of minority group members in Canadian society. Study 2 contained a no-article control condition in place of the fair system condition to compare the effect of having no information to that of having information highlighting fairness. For the first two studies, this manipulation occurred in the context of an ostensible intergroup or intragroup interaction. That is, participants were told that they would be engaging in a discussion with a partner who was either an ingroup member or a member of the outgroup featured in the article. Participants were led to believe that their partner was in a room down the hall and that they would be communicating through the exchange of written information with him or her. Previous research on intergroup interaction has successfully employed this ostensible interaction paradigm and has shown that individuals truly believe that their partner is physically present and that the potential for evaluation is high (e.g., see Vorauer, Cameron, Holmes, & Pearce, 2003; Vorauer, Main, O'Connell, 1998). However, the third study occurred in the context of a face-to-face interaction to further confirm the generalizability of these effects and examine, on an exploratory basis, the reactions of minority group members to dominant group members' behavior.

Pilot Studies

In order to ensure the intended effect of the articles manipulating perceived system fairness, two pilot studies were conducted. In the first, White Canadian individuals were asked to read an article related to the history of Aboriginal peoples in Canada. There were two versions of the article. Both versions discussed the harms encountered by Aboriginal Canadians within the context of the residential school system. However, one article described how the government has worked to correct the harms done and work toward fair treatment of Aboriginal Canadians (see

Appendix A) while the other highlighted how the government has not been successful in making up for such wrongdoing (see Appendix B). Participants then completed a short questionnaire asking how familiar they were with the events, as well as a measure of collective guilt and the system justification scale (Kay & Jost, 2003). In addition, some participants did not receive an article before completing the guilt and system measures as a control condition. The second study followed the same procedure as the first with articles related to Chinese Canadian history replacing the Aboriginal Canadian ones. That is, the two versions of the articles related to the history of Chinese peoples in Canada described what these individuals had to endure with respect to immigration and highlighted how the government had (relatively) fairly or unfairly treated them (see Appendixes C and D, respectively). A total of one hundred and twenty three participants (60% female) took part in the pilot studies. Participants ranged in age from 17 to 37 years ($M = 19.95$).

Starting with the articles relevant to Aboriginal Canadians, a one-way ANOVA was conducted on the system justification measure to ensure that the Aboriginal system-threatening article led to perceptions of the system as less fair and legitimate than the low threat article or no information. The analysis yielded a significant main effect $F(2, 59) = 3.21, p = .047$. A comparison of the fair and unfair articles revealed, as expected, that participants perceived the system as more fair when the article emphasized fairness over unfairness, $F(1, 59) = 5.67, p = .022$. The comparison of the system-threatening article and the control condition was also significant, $F(1, 59) = 3.95, p = .051$, again showing that the system was perceived as less fair after encountering the threat message. No differences were found between the control and low threat article, $F(1, 59) = .15, ns$. Given the prominence of these issues in the media, no difference in the tendency to justify the system upon hearing of governmental fairness versus

having no information at all is somewhat surprising. See Table 1 for means and standard deviations.

A comparison of the articles and questionnaire related to the history of Chinese Canadians revealed an overall marginal omnibus effect across the three conditions, $F(2, 58) = 2.91, p = .062$. As expected, those who received the system-threatening article perceived the system as less fair than those in the control condition, $F(1, 58) = 5.82, p = .020$. However, no difference was found between the unfair and fair system articles, $F(1, 58) = 1.46, ns$, or the fair system article versus control, $F(1, 58) = 1.79, ns$. Again, means and standard deviations are presented in Table 1. Given that the historical wrongdoing of the government with respect to Chinese immigrants is much less publicized in recent times than that of the government with respect to Aboriginal Canadians, this finding is perhaps not surprising. That is, conceivably any mention of historical treatment of Chinese Canadians is apt to push individuals toward more negative perceptions of the system given their general lack of awareness of the issues there. Indeed, there was a significant difference between participants' reported previous knowledge of the history of these ethnic outgroups, $F(1, 80) = 24.79, p < .001$. Specifically, participants who received an article related to Chinese Canadian history reported much less previous knowledge ($M = 2.89, SD = .27$) than those who read an article related to Aboriginal Canadian history ($M = 4.76, SD = .27$). In addition, and as expected, there were no effects on guilt given that the potential for evaluation was not present in the pilot studies.

Given that the greatest differences for the conditions related to Aboriginal Canadians were found in comparing the system threatening and low threat articles, these seemed to be the best choice for further exploring the effects of system threat in interaction contexts involving White and Aboriginal Canadians. However, given that there was no difference found between

the fair and unfair system articles with respect to Chinese Canadians, the unfair system article seemed best compared to no instructions when interactions involved White and Chinese Canadians. Moreover, finding consistent effects across system threatening information compared with relatively low threatening information or with no information would confirm that system threat has a profound effect on intergroup relations.

Study 1

Study 1 was designed as an initial test of my hypothesis that system threat would lead dominant group members to display more positive reactions toward minority group members in an interaction context. Participants engaged in a brief and controlled but ostensibly real written exchange with either an ingroup or outgroup member. Before the exchange, participants were given the experimental manipulation through reading an article related to the history of Aboriginal peoples in Canada. To assess the effects of having the same historical background information but with different depictions of societal fairness, participants either learned that the Canadian government had treated these individuals relatively fairly (low threat) or unfairly (threat). Following the manipulation, participants were given the opportunity to communicate anything they wished to their ostensible partner through an opened-ended response sheet. Coders judged the positive and negative behaviors exhibited in these responses. I expected that system threat would lead to more positive behavior. I also expected that participants' support for policies supporting social change and behavioral intentions toward assisting the outgroup would be higher when system threat was encountered in an intergroup context. In addition, participants completed a number of questionnaire items to assess the potential mediators of their behavior, including measures of guilt and evaluative concern. Guilt and evaluative concern were expected to mediate the effect of system threat on individuals' positive intergroup behavior.

Metaperceptions and meta-stereotype activation were also assessed to examine whether an enhanced focus on how participants thought they were coming across and how their group was viewed by the outgroup accounted for their behavior in an intergroup context. Measures of outgroup derogation, including measures of outgroup impressions and evaluations, level of prejudice, and defensiveness, were expected to produce null or positive effects for system threat in the context of intergroup interaction but were expected to show "standard" threat-derogation effects in the context of intragroup interaction, where there was no prospect of evaluation by outgroup members.

Method

Participants

Eighty-four introductory psychology students (50% male) who self-identified as having a White (European) ethnic background participated in this study for partial course credit. Participants' ages ranged from 17 to 28 years ($M = 19.02$ years). They were randomly assigned to one of the four conditions created by the 2 (system threat: threat vs. low threat) x 2 (exchange type: intergroup vs. intragroup) design.

Procedure

Participants arrived at the laboratory to participate in a study of social interaction (see Appendixes E and F for recruitment script and consent form, respectively). They were informed that the researchers were focused on exchanges between White and Aboriginal Canadians and that their partner in the study had an ethnic background that was either similar to (European Canadian) or different from (Aboriginal Canadian) their own. The experimenter indicated that they would exchange some written information with their partner, complete some questionnaires

and an information-processing task, and finally meet their partner at the end of the study if both participants agreed to do so.

For the first step, participants were left alone to fill out a brief personal information sheet (see Appendix G) that included demographic questions regarding sex, age, and ethnicity, in addition to questions about some personal qualities (e.g., What personal qualities are important to how you see yourself?). After allowing time for the participant to complete the questionnaire, the experimenter returned to obtain the information sheet and ostensibly take it to his or her partner. The experimenter then provided the participant with a completed sheet to read (see Appendix H). The ostensible participant's sheet indicated that he or she was nineteen years old and either Aboriginal Canadian (intergroup condition) or White (European) Canadian (intragroup condition). Thus, this sheet allowed participants to get to know a little bit about their ostensible partner and reinforced his or her ingroup or outgroup membership. The ostensible partner's answers to the personal qualities questions were those typical of the answers that most students provide.

Experimental Manipulation. After allowing sufficient time to read his or her ostensible partner's personal information sheet, following a procedure similar to Vorauer and Sakamoto (2008), participants were left alone to "prepare for the upcoming discussion." They were told that the article they were about to review was designed to give them some background information that would help during their upcoming face-to-face discussion relating to social issues. They then read either the system threat or low threat article relating to Aboriginal Canadian history.

Participants were then given two minutes to complete a thought-listing task (see Appendix I) before moving on. Next they were given the opportunity to communicate with the

other participant about the information they had exchanged so far through an open format response sheet (see Appendix J). Participants then proceeded to a lexical decision-making task (described below) on the computer before moving on to the final questionnaire (see Appendix K). Participants were thanked and fully debriefed (see Appendix L). See Appendix M for a full experimenter script for the study procedures.

Dependent Measures

Dependent measures in the final questionnaire relating to outgroup derogation were counterbalanced with measures relating to the guilt and evaluative concern hypothesis in order to ensure the results did not occur due to the order of presentation. Unless otherwise indicated, all scale ratings made by participants and coders were made on 7-point scales with higher numbers indicating stronger endorsement. All behavioral ratings followed procedures similar to those used in previous research (e.g., Vorauer et al., 2009; Vorauer & Sasaki, 2010). Independent coders who were blind to participants' ostensible partner's ethnicity and experimental condition, but aware of all other information provided, coded behavior in the open-ended response sheet and thought-listing task. See Table 2 for means, standard deviations, and reliabilities on all measures.

Behavior. Both positive and negative behaviors were assessed. Three female coders assessed positive behavior on a number of dimensions. All ratings were standardized. Inter-rater reliabilities for all items are presented in Table 2. Reliabilities under .6 were considered poor and rendered the measure in question ineligible for analysis. Ratings of participants' apparent level of liking, interest conveyed, friendliness, responsiveness, and attentiveness were combined together for an index of warmth. Positive other-directed remarks were analyzed separately to assess individuals' direct and explicit positive overtures. An index of self-disclosure was created

by combining ratings of intimacy and breadth. In addition, coders also counted the number of questions asked as an additional index of positive behavior. Coders also rated responses on a number of mood dimensions, with positive items (e.g., enthusiastic, excited) combined together to form an index of behavior suggesting overall positive mood. Negative intergroup behavior was assessed with ratings of negative other-directed remarks. However, coders were unreliable on this measure (ICC = .18) and thus it was not analyzed. Given that the instances of outright negative behavior in such a sample as university students is likely to be low, perhaps these judgments were difficult to make, accounting for such inconsistency. Coders' ratings of negative mood items were unreliable as well. Only ratings of hostile mood surpassed the reliability cutoff (ICC = .61). Thus, ratings of behavioral negativity were assessed only through coders' ratings of hostile mood. See Appendix N for the instructions for behavior coding.

Guilt and Evaluative Concerns. A variety of process measures assessed reactions specific to the guilt and evaluative concern account. Coders assessed *inhibited behavior* by providing ratings of inhibition, self-consciousness, insecurity, and appearing reserved in the open format response sheet. As a measure of anxiety, coders also rated the extent to which individuals seemed to experience an anxious mood state in this form. Coders' ratings were again standardized.

Anxiety and guilt were further assessed via participants' responses to the *open-ended thought-listing task* in which two female coders counted the number of references to anxiousness or nervousness and rated the level of guilt expressed. Coders' ratings of anxiety were unreliable on this measure (ICC = .01) and thus ineligible for analysis. Metaperceptions were also assessed through a count of any comment where participants referred to beliefs about how they were viewed by their partner. See Appendix O for the instructions for the thought-listing coding.

In the questionnaire, individuals were asked to rate the extent to which they were *concerned with evaluation* during the exchange (e.g., “I was concerned about what the other participant thought of me”). *Collective guilt* was assessed with a 7-item scale (Branscombe, Slugoski, & Kappen, 2004; see also Powell et al., 2005), adapted to reflect Canadian society and the ethnic groups in this study (i.e., White and Aboriginal Canadians), for example, “I feel regret for some of the things White Canadians have done to Aboriginal Canadians.” Personal guilt was also assessed through participants’ ratings of the extent to which they experienced each of a series of guilt-related mood states during the exchange (e.g., guilty, ashamed, apologetic). In addition, participants completed a “metaperceptual” version of Coyne’s (1976) desire for future interaction scale as a further indication of how they believed the other participant viewed them (e.g., “Would the other participant ask you for advice?”). Using a metaperceptual “*evaluation thermometer*” (Haddock, Zanna, & Esses, 1993), participants were also asked to provide ratings of how positively they believed the outgroup views the ingroup.

The lexical decision making task followed the same procedures as Vorauer, Hunter, Main, and Roy (2000). Participants responded to a series of 72 letter strings using a keypad with the labels “Yes” or “No” to indicate whether or not the letters form a word. Among the letter strings were 36 words, nine of which were *meta-stereotype* relevant in regards to how White Canadians believe they are viewed by Aboriginal Canadians (e.g., arrogant, egocentric), nine of which were *other-stereotype* relevant, related to how White Canadians view Aboriginal Canadians (e.g., careless, lazy), and nine of which were stereotype-irrelevant (e.g., pessimistic, possessive). Nine positive fillers were also included (e.g., sunny, festive). Activation of meta-stereotype words reflects concerns with evaluation (Vorauer et al., 2000) whereas activation of other-stereotype words is more directly relevant to outgroup derogation.

Outgroup Derogation. Along with the other-stereotype activation in the lexical decision-making task, outgroup derogation was assessed through participants' responses on the *open-ended thought-listing task*. Again, two female coders rated the level of defensiveness expressed as well as the number of statements referring to positive and negative impressions. That is, impressions were counted as any reference to how participants viewed their partner. Again, see Appendix O for the instructions for the thought-listing coding.

In the questionnaire, prejudice toward the outgroup was assessed with four items designed to assess *subtle prejudice regarding traditional values* (Pettigrew, 1997), adapted for a Canadian context (e.g., "Many other groups have come to Canada and overcome prejudice and worked their way up, Aboriginals should do the same without special favor"). Participants also indicated desire for future interaction with the other participant (e.g., "Would you consider inviting the other participant to your house?").

The "*evaluation thermometer*" (Haddock et al., 1993) was used to have participants rate how positively they felt toward the outgroup. Participants also indicated the extent to which they would support social change policies (e.g., affirmative action) in favor of Aboriginal Canadians (adapted from Swim & Miller, 1999) and were given the task of allotting funds to students groups on campus. These groups included one that supported undergraduate students as a whole and one that supported Aboriginal Canadians specifically, to measure participants' behavioral intentions. Collective self-esteem (Luhtanen & Crocker, 1992) was also assessed on an exploratory basis.

Manipulation Check. As a manipulation check participants completed the same system justification measure as used in the pilot study. In the final questionnaire participants responded to the 9-point scale designed to measure perceptions of fairness and legitimacy of the social

system (Kay & Jost, 2003), adapted for a Canadian context (i.e., by replacing “United States” with “Canada”). Example items include, “Everyone has a fair shot at wealth and happiness” and “In general, you find society to be fair.”

Results

Seven participants were excluded from analyses. Three of these participants had previously completed the pilot study and had thus seen the articles before. Two participants had indicated suspiciousness as to whether or not their partner was real. In addition, one participant indicated having an ethnic background that was Métis instead of White European Canadian (as previously reported) and one participant session was disrupted due to a fire alarm.

All dependent measures were analyzed in a 2 (system threat: threat vs. low threat) x 2 (exchange type: intergroup vs. intragroup) analysis of variance. Overall descriptive statistics for measures not showing significant effects are depicted in Table 2. Results for all measures on which significant effects were obtained are described below.

Behavior

The analyses of participants’ positive other-directed remarks yielded a significant System Threat X Exchange Type interaction, $F(1, 73) = 4.94, p = .029$. In line with the idea that calling attention to system unfairness may lead people to react more positively toward outgroup members, simple effects analyses showed that, within the intergroup condition, there was a significant effect for system threat, $F(1, 73) = 7.49, p = .008$. That is, participants were more positive toward their Aboriginal interaction partner in the system threat condition than in the low threat condition. Participants did not show the same effect when their partner was an ingroup member: There was no significant difference between the threat conditions when participants were interacting with a White Canadian partner, $F(1, 73) = .13, ns$. There were no significant

effects for partner ethnicity within the threat, $F(1, 73) = 1.91$, *ns*, or low threat condition, $F(1, 73) = 3.11$, *ns*. See Table 3 for means and standard deviations.

There was also a significant effect for system threat on hostile mood, $F(1, 73) = 7.42$, $p = .008$. Participants in the low threat condition exhibited more hostile mood ($M = 0.18$, $SE = 0.10$) than those in the threat condition ($M = -0.19$, $SE = 0.10$), regardless of partner ethnicity.

Evaluative Concern

Participants' metaperceptions regarding their partner's desire for future interaction indicated that they thought their ostensible partner was more likely to want to interact with them when their partner was Aboriginal ($M = 4.26$, $SE = .12$) rather than White ($M = 3.9$, $SE = .12$), $F(1, 73) = 4.36$, $p = .040$.

In addition, analyses of participants' reaction times on the lexical decision-making task revealed a significant main effect for condition with respect to meta-stereotype activation when controlling for irrelevant words, $F(1, 70) = 4.30$, $p = .042$. Contrary to expectations, participants were faster to respond to meta-stereotype related words in the low threat ($M = 728.83$, $SE = 14.67$) than the threat ($M = 772.97$, $SE = 15.36$) condition, indicating *less* meta-stereotype activation when the system was depicted as unfair.

Outgroup Derogation

Partner ethnicity had effects on group evaluation. In particular, compared to participants in the intragroup condition ($M = 57.00$, $SD = 3.35$), those in the intergroup condition ($M = 67.83$, $SD = 3.35$) were more likely to report positive attitudes toward Aboriginal Canadians, $F(1, 73) = 5.08$, $p = .027$, report that Aboriginal Canadians had more positive evaluations of White Canadians, $F(1, 73) = 4.70$, $p = .033$ ($M = 38.38$, $SD = 2.93$ and $M = 47.54$, $SD = 3.05$, respectively), and that White Canadians had more positive evaluations of Aboriginal Canadians,

$F(1, 73) = 4.38, p = .040$ ($M = 39.38, SD = 2.78$ and $M = 47.71, SD = 2.89$, respectively) on the evaluation thermometers. Interestingly, however, there was no evidence of derogation associated with system justification in either partner ethnicity condition. That is, participants did not rate Aboriginal Canadians more negatively upon being confronted with information as to the unfairness of the social system.

Participants who believed they were interacting with an outgroup member ($M = 5.06, SE = .25$) were more likely to support policy in favor of affirmative action than were those interacting with an ingroup member ($M = 4.07, SE = .25$), $F(1, 72) = 7.85, p = .007$. Also, in line with the idea that drawing attention to unfairness may lead individuals to want to correct inequality, those in the system threat condition ($M = 17.46, SE = 0.95$) were marginally more likely to allot university funds to a student group supporting the outgroup members' cultural background than were those in the low threat condition ($M = 14.86, SE = 0.93$), $F(1, 72) = 3.72, p = .058$. Notably, however, this effect did not interact with partner ethnicity.

Mediation analysis was not conducted to test the proposed model given that no evidence of the proposed mediator was found.

Discussion

Some aspects of the results of Study 1 indicate that dominant group members react more positively during intergroup interaction under high system threat than under low system threat. Specifically, in the system threatening condition, participants expressed more positive other-directed remarks toward their interaction partner when he or she was a member of the outgroup, but not when he or she was an ingroup member. This suggests that calling attention to system threat may have positive effects in an intergroup interaction context.

Interestingly, the positive effect on other-directed positive remarks was not evident on other behavioral measures such as self-disclosure and warmth conveyed. It seems that the system threat led individuals to convey their positivity in a very direct manner. Perhaps system threat leads individuals to aim to restore justice in a purposeful way that is most clear-cut, in this case through directing explicitly positive remarks toward their interaction partner.

Surprisingly, although some positive effects of system threat were found for behavior, no such effects were evident on the attitude measures. That is, participants made more positive other-directed remarks toward their outgroup interaction partner after being exposed to system threat but did not report feeling more positively toward the outgroup. Furthermore, no effects were found for the proposed mediators of guilt and evaluative concern. Because attitudes and guilt were assessed after the interactions, perhaps participants felt they had restored justice through their behavior such that they did not have to feel bad or report overly positive attitudes. If they felt they were able to compensate for any wrongdoing they may have felt more at ease with themselves. Indeed, unlike in the pilot study, there were no differences found between participants on the system justification scale, suggesting that individuals may have been satisfied by personally taking a step (however small) toward redressing injustice. Moreover, Hafer (2000) suggests that just-world effects can be hard to detect with such blatant measures and thus created a more subtle measure of justifying tendencies through assessing reaction times to justice-related words in a modified Stroop task. Perhaps such a measure would have provided a more sensitive manipulation check in the present research.

Although participants' open format responses were rated as showing less hostility when in the system threat condition, this occurred regardless of partner ethnicity. Participants were also marginally more likely to allot funds to a student group supporting the outgroup when the

system was threatened than when it was portrayed as fair. Interestingly, this outcome was also not contingent on partner ethnicity. However, interacting with an outgroup member did lead individuals to favor affirmative action policies more so than when they were interacting with an ingroup member, regardless of high or low system threat. Positive effects for partner ethnicity are consistent with the typical benefits of intergroup contact (see Pettigrew, 1998).

Although the results for meta-stereotype activation were in the opposite direction than predicted, this could be because it was assessed after behavior, perhaps allowing participants to believe they had countered any negative feelings the outgroup may have felt for the ingroup through their positive actions.

It is also interesting to note the absence of effects for outgroup derogation in the intragroup condition. However, it may be a result of the experimental paradigm in which participants likely felt more individuated in the experimental context rather than when participating in more anonymous survey contexts often employed in system justification-related research. I return to this issue in the General Discussion.

Study 2 aimed to confirm the positive behavioral effects invoked by system threat and to investigate further the proposed mechanism behind these effects.

Study 2

Study 2 was designed to replicate the findings of Study 1 with a different ethnic minority group to examine generalizability across groups and to further probe underlying mechanisms. The procedures followed the same ostensible interaction paradigm as used in Study 1 with an article highlighting the experiences of Chinese peoples in Canada replacing the one used regarding Aboriginal Canadians (adapted from Vorauer & Sakamoto, 2008; see Appendix D). Further, in place of the low threat article, Study 2 utilized a no-article control condition given

that the threat and low threat articles relevant to Chinese Canadians did not differ in the pilot study. Again, under system threat, White Canadian participants were expected to display more positive behavior toward their outgroup interaction partner as a function of the guilt and evaluative concern activated. Given that there were no effects for guilt on the measure used in Study 1, however, I employed a different measure of guilt in Study 2 (see *Dependent Measures* below for further detail). All other dependent measures remained the same.

Method

Participants

Eighty-six introductory psychology students (47% female) who self-identified as having a White (European) ethnic background participated in this study for partial course credit. Participants' ranged in age from 17 to 20 years ($M = 18.31$ years). They were randomly assigned to one of the four conditions created by the 2 (system threat: threat vs. no-article control) x 2 (exchange type: intergroup vs. intragroup) design.

Procedure

The procedure followed in Study 2 was the same as that in Study 1 with the exception that the ostensible outgroup member had a Chinese Canadian background. Further, the system-threatening article reflected the history of Chinese peoples in Canada (see Appendix D). Given that the low threat article was not significantly different than the system-threatening article during pilot testing, the comparison condition for Study 2 was a no-article control condition.

Dependent Measures

The dependent measures used in Study 2 were the same as those used in Study 1, with one exception. Research suggests that the collective guilt scale used in the previous study taps regret as well as guilt (Zebel et al., 2009). As these are distinct outcomes in the psychological

literature, and because no effects were found in Study 1, this measure was replaced with the White Guilt scale (Swim & Miller, 1999). This 5-item scale was designed to assess individuals' general tendency to experience guilt over their advantaged position (see also Iyer et al., 2003) and includes items such as "When I learn about racism, I feel guilt due to my association with the White race." In addition, all references to "Aboriginal Canadians" in the Study 1 measures were replaced with "Chinese Canadians" for Study 2. Five independent coders (four females, one male) rated participants' interaction behaviors in the open-format response sheet as indicated in Study 1. Two female coders rated the thought-listing tasks in the same way as in Study 1. All ratings were standardized. See Table 4 for means, standard deviations, and reliabilities on all measures.

Results

Six participants were excluded from analyses. Five participants indicated suspiciousness as to whether or not the ostensible partner was real and one session was disrupted due to a fire alarm. As in Study 1, all dependent measures were analyzed in a 2 (system threat: threat vs. no-article control) x 2 (exchange type: intergroup vs. intragroup) analysis of variance. Overall descriptive statistics for measures not showing significant effects are depicted in Table 4. Results for all measures on which significant effects were obtained are described below. Again, measures on which reliability was lower than .6 were not analyzed.

Behavior

The analysis of participants' negative other-directed remarks yielded a significant main effect for system threat, $F(1, 75) = 5.51, p = .022$. In line with the idea that calling attention to system unfairness may lead people to react less negatively, participants in the system threat condition directed fewer negative remarks toward their partner ($M = -.19, SE = .12$) than did

those in the control condition ($M = .19, SE = .12$). Contrary to predictions, this effect was not moderated by partner ethnicity.

Guilt and Evaluative Concern

Participants' ratings of guilt-related mood states (apologetic, guilty, ashamed) yielded the predicted System Threat X Exchange Type interaction, $F(1, 75) = 5.45, p = .02$. That is, participants reported more guilt when interacting with an outgroup member than with an ingroup member in the system threat condition, $F(1, 75) = 5.26, p = .025$. There was no significant effect for partner ethnicity within the control condition, $F(1, 75) = 1.03, ns$. There was also a significant effect for threat in the outgroup condition, $F(1, 75) = 14.02, p < .001$, whereby those in the threat condition reported more guilt than those in the control condition. There was no significant difference between conditions when interacting with an ingroup member, $F(1, 75) = .40, ns$. See Table 5 for all means and standard deviations for interaction effects.

Further, participants' reports of anxiety-related mood states (uneasy, apprehensive, anxious, tense, suspicious, uncertain, careful, guarded) showed a significant interaction effect, $F(1, 75) = 4.73, p = .033$. Specifically, within the intergroup condition, participants were more anxious under system threat than in the control condition, $F(1, 75) = 5.98, p = .016$. There was no such effect for threat in the intragroup condition, $F(1, 75) = .38, ns$. Interestingly, on the same measure, there was also a significant effect within the control condition whereby participants were more anxious when interacting with a White Canadian partner than with a Chinese Canadian partner, $F(1, 75) = 6.93, p = .010$. Participants did not show the same effect within the threat condition, $F(1, 75) = 0.18, ns$. Thus, intergroup interaction seemed to be more anxiety provoking to individuals under system threat, whereas the intragroup context induced more anxiety when threat was absent. This effect is consistent with previous work showing that

individuals care more about ingroup opinions unless the legitimacy of their higher-status position is threatened (Vorauer & Sakamoto, 2008). That is, when the perceived legitimacy of higher-status group members is threatened, these individuals care more about lower-status group members' opinions as they see them as judges of moral goodness. However, when status-legitimacy is not threatened, they attach less importance to an outgroup member's opinion and care more about ingroup opinions.

The self-report guilt scale yielded a main effect for threat condition, $F(1, 75) = 5.41, p = .023$, whereby, participants felt more guilt in the system threat condition ($M = 3.65, SE = .19$) than the control condition ($M = 2.98, SE = .19$). Likewise, coders rated participants' thought-listing tasks as indicating more guilt in the system threat ($M = 3.18, SE = .21$) than control condition ($M = 1.10, SE = .21$), $F(1, 75) = 50.44, p < .001$. Participants' self-reported mood ratings of sympathy-related mood states indicated a main effect whereby participants also felt more sympathetic in the threat ($M = 3.05, SE = .16$) rather than control condition ($M = 2.17, SE = .17$), $F(1, 75) = 16.43, p < .001$. No interaction effects were found on these measures.

Combining guilt measures proved to be unreliable ($\alpha = .53$) and therefore an overall analysis on all guilt measures was not conducted.

Partner ethnicity had effects on group evaluation. In particular, compared to participants in the intragroup condition ($M = 54.08, SD = 2.93$), those in the intergroup condition ($M = 63.52, SD = 2.97$) were more likely to report that Chinese Canadians had more positive evaluations of White Canadians, $F(1, 75) = 5.05, p = .028$. Also, participants in the system threat condition ($M = 80.75, SD = 2.58$) reported more positive attitudes toward their ingroup than did those in the low threat condition ($M = 73.36, SD = 2.62$), $F(1, 75) = 4.16, p = .045$, consistent with the idea that system threat can prompt ingroup favoritism. However, there was no evidence of derogation

as there were no effects found for participants' overall evaluations of Chinese Canadians. That is, participants did not rate Chinese Canadians more negatively upon being confronted with information as to the unfairness of the social system. There were also no effects found for participants' perceptions of White Canadians' views of Chinese Canadians.

Other Measures

Controlling for overall number of words, coders' ratings of participants' thought-listing tasks revealed that those in the control condition ($M = .42, SE = .09$) indicated more positive impressions of their partner than those in the system threat condition ($M = .09, SE = .09$), $F(1, 74) = 7.15, p = .009$, an effect not dependent on partner ethnicity.

Mediation analysis was not conducted to test the proposed model given that no evidence of the proposed behavioral effect was found.

Discussion

Consistent with the idea that system threat should induce more guilt when interacting with an outgroup member specifically, participants reported feeling more guilt and anxiety when interacting with an outgroup but not ingroup member in the system threat condition. Thus, Study 2 provides evidence for the proposed mediator of the effects of system threat on interaction behavior. However, the actual predicted behavioral outcomes did not emerge. It is possible that this has something to do with the fact that different minority groups were used in Studies 1 and 2. Perhaps being more familiar with the historical injustices faced by Aboriginal Canadians (as indicated in pilot testing the articles) had some effect on evidencing less guilt. If participants were hearing of the injustices faced by Chinese Canadians for the first time, perhaps this led to more concern.

Interestingly, individuals did not appear to try to make up for injustices through enhanced positivity as they potentially did in Study 1. Whether this occurred due to uncertainty, disinterest, or something else entirely is unclear. The comparison of the system-threatening article to a no-article control condition could have influenced the extent of positive behavior exhibited. For example, there may have been more room for positive effects in Study 1 if the low threat manipulation led to more complacency (and fewer positive remarks) than did receiving no information. Alternatively it may be that in the present study information about unfairness was confounded with salience of the intergroup relationship because the control condition contained neither. Making intergroup issues more salient can introduce inhibition and this effect may have masked a link between system threat and positive behavior.

Results for behavior in Study 2 were somewhat consistent with those of Study 1 in that the system threat condition led to less negative responses from the dominant group members toward minority interaction partners in the form of negative other-directed remarks. However, this effect was not moderated by partner ethnicity, also being evident in the intragroup condition. Surprisingly, participants also seemed to have more positive impressions of their partner in the control versus system threat condition, again an effect not moderated by partner ethnicity. Individuals also exhibited more guilt on the guilt scales and thought-listing tasks, as well as more sympathy when faced with system threat, regardless of whether their partner was an ingroup or outgroup member. It is not clear exactly why interaction effects were found on some measures and main effects on others. Possibly it could be the nature of the measures used. For instance, the guilt scale on which a main effect was obtained taps a general tendency toward feeling guilty regarding one's advantaged position, whereas the self-report mood items on which the interaction effect was evident tapped more immediate feelings of guilt that may have been more

strongly affected by the surrounding social context. This idea is further supported when taking into account the low reliability between the various measures of guilt in the study.

Again, no evidence of outgroup derogation tendencies were found. Attitudes toward the outgroup were not affected, nor was participants' stereotype or meta-stereotype activation. Consistent with past research, participants did show an effect for ingroup favoritism under system threat in comparison to the control condition. Although favoring one's own group could be interpreted as evidence toward outgroup derogation, the effect did not center on evaluation of outgroup members and therefore cannot clearly be construed as more negative perceptions of the outgroup. Thus, as in Study 1, it is possible that the lack of clear effects for meta-stereotype activation and attitude measures were a result of their being assessed after behavior. That is, participants' responses on these measures could have somehow been contaminated by their preceding behavior.

Study 3

Study 3 used a face-to-face interaction paradigm. That is, interracial pairs had a videotaped discussion instead of exchanging written information. Due to participant availability and Aboriginal Canadians' status as a salient ethnic minority group in the location where the research was conducted, interracial pairs consisted of individuals with a White (European) ethnic background and those with an Aboriginal ethnic background. Predictions for dominant group members remained the same given that previous research shows that findings in ostensible interactions do generalize to face-to-face interactions (e.g., Vorauer et al., 2003; Vorauer et al., 2009). That is, participants were expected to behave more positively toward an outgroup interaction partner in the context of system threat.

In addition, the physical presence of the minority group member allowed for an examination of how a dominant group member's reactions to the manipulation actually affect minority group members' experience of the exchange and outward behavior. Although the predictions for minority group members were more exploratory, I generally expected that the dominant group member's reactions to the manipulation would have a substantial impact on how minority group members responded. Research shows that individuals often display matching-type effects in interaction settings with respect to behavior (e.g., Chartrand & Bargh, 1999) and mood (e.g., Neumann & Strack, 2000). For example, providing one individual in an interethnic dyad with instructions to try to form an impression led to a contagion-type effect with respect to anxiety and depletion (Sasaki & Vorauer, 2010, Study 2). That is, both dyad members experienced less cognitive resource depletion and negative affect after instructing just one of these individuals to adopt an impression formation mindset. Further, being smiled at leads to more smiles returned (Rosenfeld, 1967) and being interviewed by someone who makes a lot of errors in speech leads individuals to also make more errors (Word, Zanna, & Cooper, 1974). Thus, perceiving others' behavior and mood leads individuals to unconsciously mirror these responses.

Notably, however, people do not always mimic others but instead can engage in complementarity whereby they exhibit the opposite effect of their interaction partner. However, such an effect is relatively rare and more likely to occur when individuals are in direct competition (Lanzetta & Englis, 1989) or when an individual asserts his or her dominance (Tiedens & Fragale, 2003). Given the non-competitive environment of the current research, the matching-type effects seemed more likely to occur. Thus, if dominant group members in the

system threat condition exhibit more positive behaviors, their minority group interaction partners might do the same and may also feel more positively during the interaction.

The face-to-face interaction context allowed for the investigation of attitudes and verbal behaviors as assessed in Studies 1 and 2 but also nonverbal aspects of behavior as well. Coders rated each participant's behavior on an individual basis. Importantly, they were able to provide ratings for both the dominant and minority group member. Coders rated each participant twice – once for nonverbal behavior and once for verbal behavior. Verbal behaviors were coded much in the same way as the open format response sheets, examining warmth, self-disclosure, inhibition, apparent mood states (positive, negative, anxious, and guilty) and positive and negative other-directed remarks. Nonverbal behaviors included smiling, fidgeting, eye contact, and forward lean, with the expectation that the system threat manipulation given to one dyad member would lead both individuals toward more positive verbal and nonverbal behaviors. Participants completed the same questionnaire items as in Study 2 but minority group members were not asked about prejudice toward their own group or guilt.

To examine additional potential process measures on an exploratory basis, White Canadian participants' level of other-focus was also assessed in this study. That is, focusing on one's interaction partner versus focusing on the self may have an impact on how individuals come across during the exchange (e.g., Sasaki & Vorauer, 2010). Perhaps the system threat manipulation leads dominant group members to be more attuned to their partner, thereby leading to more positivity toward him or her.

Method

Participants

Participants were 35 White (European) and 35 Aboriginal Canadian introductory psychology students. They were previously unacquainted and assigned to pairs on the basis of scheduling convenience. Each pair was randomly assigned to the system threat vs. low threat control condition.

Procedure

As in Studies 1 and 2, participants arrived at the laboratory to participate in a social interaction study. Pair members were assigned to wait for the experimenter in different locations to ensure that they were meeting each other for the first time during the discussion. Instructions were given on an individual basis and pair members were kept separate from one another at all times except for the discussion and debriefing. As in the Studies 1 and 2, the White female experimenter explained that the study focused on first meetings situations between members of different ethnic groups and how perceptions are affected by the kind of information that is exchanged between two people. She also specified their partner's ethnicity so that participants were certain to be aware of the intergroup context.

The procedure followed that of the first two studies with the exception of the face-to-face discussion replacing the open format response sheet. After the initial exchange of personal information, White Canadian individuals were given either the system threatening or low threat article used in the first study (dependent on condition). The experimenter then brought the participants together and informed them that they would have 15 minutes for their conversation and that it would be videotaped. Pair members received a list of possible discussion topics including academic, social, and employment experiences, career goals, and relationships with family members (see Appendix P). Before turning on the camera and leaving the room, the experimenter told the pair that they could spend as much or as little time on each topic as they

like, but that they should go through them in the order in which they appeared. After the 15 minutes were up, participants were separated to complete the dependent measures and assured of the confidentiality of their questionnaire responses. Finally, participants were thanked and thoroughly debriefed.

Dependent Measures

The dependent measures in Study 3 were the same as those used in Studies 1 and 2 with some slight modifications. Specifically, Aboriginal participants were not asked to complete the measures of White guilt and prejudice. In addition, the behavioral coding was modified to better assess the videotaped interaction rather than the written responses. Specifically, coders assessed behavior during the first, fifth, and tenth minute of the interaction. They completed the coding in two rounds for each participant, once with the sound muted to assess nonverbal behavior and once with the sound on to assess verbal behavior. Each participant was rated separately, with coders rating participants on one side of the screen before moving on to the participant on the other side of the screen. All coders' ratings were standardized. See Table 6 and 7 for reliabilities for White (European) and Aboriginal participants, respectively.

Nonverbal coding. Following the procedure of Todd, Bodenhausen, Richeson, and Galinsky (2011), three independent coders (one male, two females) rated nonverbal behavior on four dimensions. Coders judged, on 7-point scales, the extent to which participants were smiling, fidgeting, making eye contact with their partner, and leaning toward (versus away from) their partner. See Appendix Q for the specific coding instructions.

Verbal coding. Coders rated self-disclosure and warmth in the same manner as in the previous two studies. Given the lack of effects of the previous inhibition measures and the complexity of coding the videos for each particular item, a single item was used in this study.

Coders also judged participants' positive mood (i.e., relaxed, secure), anxious mood (i.e., nervous, anxious, guarded, uncertain, careful, uncomfortable), negative mood (i.e., hostile, prejudiced), and guilty mood (apologetic, guilty). Coders also counted the number of positive and negative other-directed remarks. Again, interrater reliability for each index is presented in Table 6 and 7 for White Canadian and Aboriginal Canadian participants, respectively. As in Studies 1 and 2, reliabilities under .60 were considered too low and thus, negative remarks, guilty mood, anxiety, positive and negative mood, and warmth were excluded from the analysis. All dependent measures were analyzed separately.

Other-Focus. Two independent coders assessed other-focus by counting the instances in which White participants referred to their partner in the thought-listing tasks after the manipulation was administered. Specifically, coders were asked to count all references the participant made to the other person (e.g., he/she, him/her, etc.).

Results

Two pairs were excluded from analysis. In each case, one pair member indicated that his or her ethnic background was different from that with which he or she originally identified in the mass testing survey.

Analyses for Study 3 mirrored those used for Studies 1 and 2 with adjustments made to incorporate the dyadic interaction. More specifically, I conducted a 2 (system threat: threat vs. low threat) x 2 (ethnicity: White vs. Aboriginal) ANOVA, with pairs as the unit of analysis and with system threat as a between-pairs factor and ethnicity as a within-pairs factor. Overall descriptive statistics for Aboriginal Canadians on measures that did not show effects are depicted in Table 6, while those for White (European) Canadians are depicted in Table 7. Interaction effects whereby White Canadian participants were more positive when the system was

threatened but Aboriginal Canadian participants were not would be consistent with predictions for White Canadians but would indicate a lack of contagion across the dyad. Main effects would instead indicate that the manipulation had the expected effects on White Canadian participants and that these effects were contagious. Results for all measures on which significant effects were obtained are described below.

Behavior

In line with the results of Studies 1, perceived system threat had a positive effect on behavior. More specifically, pair members disclosed more information to each other when the White participant had read that the system-threatening article, $F(1, 31) = 5.74, p = .023$. Such a positive effect was evident for nonverbal behavior as well. That is, participants smiled more, $F(1, 29) = 4.86, p = .036$ when the system was threatened ($M = .27, SD = .20$) rather than under low threat ($M = -.35, SD = .20$) and also made more eye contact, $F(1, 29) = 5.07, p = .032$, in the threat ($M = .23, SD = .16$) versus low threat condition ($M = -.27, SD = .16$). In line with predictions, White Canadian participants showed more positivity toward their partner when the system was threatened and, consistent with the idea of contagion, this positivity spread to their interaction partner.

To assess the measure on which positive behavioral effects were evident in the first study, I assessed participants' other-directed remarks. A significant interaction effect was found, $F(1, 31) = 5.81, p = .022$. Simple effects analysis showed that Aboriginal Canadian participants made more positive other-directed remarks in the system threat condition than did those in the low threat condition, $F(1, 31) = 11.48, p = .003$ (see Table 8). No parallel effect was found for White Canadian participants, $F(1, 31) = 0, ns$.

In examining potential process measures, a significant main effect was found for other-focus, $F(1, 31) = 6.28, p = .018$, whereby participants in the system threat condition made fewer references to their partner ($M = .58, SD = .86$) than those in the low threat condition ($M = 1.60, SD = 1.44$), suggesting less other-focus under threat. However, this factor did not mediate the effect between the experimental manipulation and the outcome measures.

Discussion

The results of Study 3 were parallel to those of Study 1, with positive behavioral effects found for the same ethnic minority group and with the low threat article as its comparison condition (rather than the no-article control condition). That is, the positive effects found in the ostensible interaction paradigm were echoed in the face-to-face interaction context, providing evidence for the encouraging outcomes arising from calling attention to system unfairness. Specifically, Study 1 found that dominant group members exhibited more positive other-directed remarks to a member of the outgroup when faced with system threat. In Study 3, both dominant and minority group members engaged in more self-disclosure, smiling, and eye contact when in the system threat condition. Study 3 also found that minority group members made more positive other-directed remarks toward their interaction partner after their partner had been exposed to the same system threat manipulation. While this effect was not significant for dominant group members, they engaged in a number of other positive behaviors during the interaction that could have prompted the minority group members' reaction.

Notably, I did not find evidence for the proposed mediators of guilt and evaluative concern. This is consistent with the results of Study 1 but not parallel to Study 2. Recall, however, that Study 2 also did not find evidence of the same positive other-directed behaviors as Studies 1 and 3. Thus, it could very well be something about the differences between the

historical experiences of the different ethnic minority groups in the studies that explains why participants felt more guilt toward Chinese Canadians than Aboriginal Canadians, or instead it could be a result of the differing comparison conditions. Further, the lack of guilt or evaluative concern in the present study may also be a result of its interactive nature, allowing individuals to display more positivity toward their outgroup partner such that they felt that they had reconciled these negative feelings. Specifically, in Studies 1 and 3 it is possible that participants were able to counter their guilt and evaluative concern by engaging in more positive behavior whereas in Study 2 they did not act and thus were left with the guilt and anxiety. Perhaps these differing effects could be tied to differing perceptions regarding the seriousness of the differing historical harms or perceiving different communication norms due to group stereotypes (e.g., if Chinese Canadians are viewed as more shy it may be less clear as to how to react behaviorally).

Interestingly, while positive effects were found for behavior, there were no effects found on attitude measures in Study 3. For example, participants did not have more positive or negative impressions or metaperceptions as a result of the system threat manipulation, nor did they evaluate the ingroup or outgroup more positively. However, effects found on these measures in Study 1 were effects for ethnicity (intergroup versus intragroup) and not connected to the manipulation. Given that all interactions were intergroup in nature for Study 3, this is not inconsistent with the results of Study 1.

Overall, then, Study 3 appeared to support the idea that calling attention to system threat in intergroup interaction contexts can induce more positive behavior, not only from the dominant group members who are made aware of the injustices but also from their interaction partner. However, why this is the case still remains unclear as the potential mediators of guilt and evaluative concern did not show effects. Moreover, while further examination of potential

mediators found other-focus to be surprisingly lower in the system threatening condition, this also did not mediate the positive effects of the manipulation.

Thus, contrary to the literature on system threat and attitudes, Studies 1 and 3 suggest that system threat can have a positive effect on intergroup interaction. However, what exactly sparks this positivity remains an area for further examination.

General Discussion

The present findings underscore the potential positive influence of rendering system unfairness salient in terms of intergroup interaction dynamics. Overall, the findings of the present studies suggest that there may be some benefit to calling attention to unfairness experienced by minority group members in an interaction context.

Studies 1 and 3 provide promising results in terms of positivity expressed toward minority group members. Specifically, Study 1 found that members of a dominant group made more positive other-directed remarks toward their outgroup interaction partner in the context of system threat. Importantly, this effect was specific to intergroup interaction and this positivity extended from the dominant group members to their face-to-face interaction partners in Study 3. That is, both the dominant group member and their minority group member interaction partner engaged in the more positive nonverbal behaviors of smiling and making eye contact and also increased their self-disclosure when the dominant group member had received the system threat manipulation. Key to these findings is that this occurred not only for the individual receiving the manipulation but for their interaction partner as well. Further, minority group members in the system threatening condition made more positive other-directed remarks to their partner, indicating that raising dominant group members' awareness of injustice can lead to more positive behavior by minority group members as well. Especially in the context of much research

indicating defensiveness and negativity in response to threat, the present results showing that exposure to threatening information can have positive effects is striking. For example, research investigating the effects of system threat on judgments toward women in higher status positions has shown that system threat leads individuals to devalue women in these roles (Kay, Gaucher, Peach, Laurin, Friesen, Zanna, & Spencer, 2009) and heightens backlash toward them (Rudman, Moss-Racusin, Phelan, & Nauts, 2012). Given that a focus on commonalities can promote a picture of harmony that can blind individuals to disparities and inequality (Saguy et al., 2009), the present findings provide hope for the future of intergroup relations by showing that calling attention to unfairness does not necessarily have to lead to negative outcomes.

One limitation of the present research is the lack of consistency in findings for Study 2. Whereas enhanced positive other-directed behavior in connection with system threat was found in Study 1 and Study 3, this was not evident in the second study. It is important, however, to note the outcomes found in the system threat condition in Study 2 were still somewhat in line with predictions. That is, when interacting with an outgroup member, calling attention to unfairness led to increased feelings of guilt and anxiety. Thus, Study 2 essentially found evidence of the proposed mediators of the positive interaction behavior expected to arise from system threat in intergroup interaction. Given that the mediators were present in the absence of the behavioral effects while the behavioral effects were present in the absence of the proposed mediators for Studies 1 and 3, there may be some other mechanism involved. However, it may just be that once individuals behave positively they no longer feel guilty, whereas if they do not display positivity the guilt stays with them. It is also important to note that making system threat salient in intergroup interaction did not induce more negative behavior in Study 2 despite its lack of positive behavior. Specifically, participants actually made less negative remarks and were more

sympathetic in the system threat versus control condition. Thus, it appears that calling attention to unfairness in this study led to overall increases in guilt (on the guilt scale and in the thought-listing tasks) and perhaps especially so when interacting with an outgroup member (as indicated on the self-report measures of guilt and sympathy). However, in this case, guilt did not elicit more positive or more negative behavior.

Why do the results of Study 2 differ from the other two? There are three key possibilities for this variation. First, the comparison condition for Study 2 differed from the one used in Studies 1 and 3 in that it lacked any form of manipulation. Thus, participants in the control condition had no background information on their partner's ethnic group. Indeed, the pilot study showed that White Canadians know much less about the history of Chinese Canadians than that of Aboriginal Canadians. Perhaps, then, the system threat manipulation made intergroup issues salient at the same time as it emphasized unfairness. Making intergroup issues salient, in and of itself, may prompt inhibition and self-censorship, and this may have dampened the positive effect of the threat on behavior. In the other designs the salience of intergroup issues and any connected inhibition was constant, providing a cleaner test of the effects of perceived fairness.

Another possibility concerns the nature of stereotypes regarding the different ethnic groups. It is likely that Chinese Canadians are seen as a more threatening ethnic minority group as they are less stigmatized than Aboriginal Canadians. That is, stereotypes regarding Asian individuals (e.g., good at math; Aronson, Lustina, Good, Keough, Steele, & Brown, 1999) are less negative than those surrounding Aboriginal individuals (e.g., lazy; Vorauer et al., 1998). However, acknowledging that Asians are high in competence often comes with perceptions of their being low in warmth (see Fiske, Cuddy, Glick, & Xu, 2002; Fiske, Xu, Cuddy, & Glick, 1999). Research also shows that because Asians are seen as threatening to the White majority in

terms of intelligence and success, realistic threat contexts can lead dominant group members to hold negative attitudes and emotions toward them (Maddux, Galinsky, Cuddy, & Polifroni, 2008). Perhaps then, in the present context, although individuals felt bad for the negative experiences of Chinese Canadians, they did not display more positive behavior toward them as this minority group is perceived as having done well despite any historical wrongdoing. That is, whereas dominant group members are willing to acknowledge that the historical injustices toward Chinese Canadians were wrong, they may have seen no need for current reparations given that Chinese Canadians seem to be faring well in society. Further, if participants perceived the article as “Asian Canadians experiencing negativity yet still coming out on top,” it could have induced feelings of envy (see Ho & Jackson, 2001) that may bode less positive behavior. In contrast, hearing of the historical injustices faced by Aboriginal Canadians while believing that they are still not getting ahead could allow for the positive behavior to try rectifying previous wrongdoing.

With respect to the lack of apparent guilt in the first and third studies, it is quite possible that these individuals did not evidence guilt because they felt they had countered the perceived bad behavior of their group through positivity expressed during the intergroup interaction. Indeed, research shows that when individuals are given the opportunity to alleviate their guilt through some form of action they will take it, leaving them relatively unaffected by the injustice (Mills & Egger, 1972, Regan, 1971; see also Lerner & Miller, 1978). Furthermore, the interaction context could be seen as an outlet for allowing positive behavior to alleviate culpability. If individuals can assist in changing perceptions of their group as unjust through their own behavior, they need not feel so bad about the situation. Miller (1977) suggests that individuals are likely to assist victims in the face of a threat to their belief in a just world to the

extent that they believe that their assistance will alleviate suffering for that individual. The desire to help under these specific circumstances should be particularly pronounced for those that possess high just world beliefs. Indeed, Miller found that high believers were more likely to help when the need of the victim was presented as temporary rather than ongoing (Miller 1977; Study 2). Those low in the belief in a just world were unaffected by the manipulation. Perhaps individuals in the first and third studies felt that the interaction context provided the opportunity to rectify injustice through positive behavior. Further, participants may have felt they were better able to understand the issues facing the outgroup (in contrast to the many individuals who know nothing about them as suggested in the article) and counteract the negative behavior of the dominant group such that the outgroup member would have more positive perceptions of the dominant group. This would also then alleviate the threat to their justice concerns such that feelings of guilt were somewhat unwarranted at the point in the study where they were asked to report on them.

It should further be noted that perhaps guilt would have been evident had we administered the questionnaire directly following the manipulation. However, this would likely have activated additional feelings and suspicions regarding the study that may have then skewed the behavioral results; the key outcomes. Because guilt has been shown to operate toward interpersonal relationship maintenance (Baumeister, Reis, & Deleapaul, 1995), perhaps it allows individuals to approach intergroup interaction with a more positive mindset.

The findings of Studies 1 and 3 may be particularly surprising in light of the relatively consistent findings that when individuals are confronted with injustice they have a tendency to derogate the victims (e.g., Crandall, 1994; Jost & Banaji, 1994; Lerner & Simmons, 1966). Yet the results of the present study are indeed consistent with the idea that the effects of system

threat may be more positive in the context of intergroup interaction than outside of it. Still, the absence of derogation in the intragroup condition may be surprising. Although Study 2 did find that dominant group members reported higher ratings for their own group under system threat, such an effect was not evident in the other studies. Moreover, this effect did not center on evaluations of the outgroup and thus did not show a derogation effect per se. This lack of a clear derogation effect could be a result of the experimental context. That is, perhaps individuals are less likely to exhibit such an effect in experimental conditions such as this one where they feel more individuated and identifiable to the experimenter than in more anonymous survey contexts that are more the norm in this research. For example, returning a completed, anonymous questionnaire by post (as in Johnson et al., 2005) is likely to have different effects than handing a questionnaire to an experimenter with whom one has interacted. Moreover, the situations in which derogation has typically been shown to occur are different from the present. In one case, the victim is specifically mentioned as perceiving the incident described as an injustice toward them (Van Prooijen & Van den Bos, 2009) while other research reports a general dissatisfaction with the current state of the country (see Kay et al., 2005). The present studies go into more detail regarding the plight of a specific ethnic group from a perspective outside of the victim's own.

Hearing of the system threat from a source other than the disadvantaged group itself may have led to a less negative response. Research on “complainers” suggests that minority group members who make claims of discrimination are often regarded unfavorably in comparison to those who make other attributions for perceived unfairness (Kaiser & Miller, 2001). This occurs even when discrimination was likely. Indeed, when targeted individuals confront racial bias,

perpetrators often feel less guilty and more irritated by the confrontation than if bias had been acknowledged by a non-targeted individual (Czopp & Monteith, 2003).

Specifically, in Kaiser and Miller's (2001) research participants rated a Black student less favorably when the student claimed that a poor grade was the result of discrimination rather than personal effort even when participants were aware that the judges did discriminate against Blacks. Moreover, Czopp and Monteith's (2003) research asked participants to imagine a scenario where they were confronted for giving a racially biased response by either a member of the target racial group or a non-targeted individual. Those confronted by a member of the targeted group felt less guilt and less positive toward the confronter than those who were confronted by someone outside of the targeted group. Further, Vorauer and Turpie (2004; Study 2) found that individuals who held less prejudicial attitudes had negative behavioral reactions to outgroup members who mentioned being discriminated against. Clearly, then, the source of the system threat can make a difference in the reaction of those who receive the information. Perhaps then providing advantaged group members with information from outside sources as in the present research rather than hearing it right from the disadvantaged groups' point of view is useful for gaining better outcomes.

As positive contact experiences are important for increasing the likelihood that individuals will engage in future intergroup interactions (see Pettigrew & Tropp, 2006), the results of Studies 1 and 3 show much potential for increasing intergroup contact through drawing attention to unfairness. Although members of dominant groups often prefer to focus on group-based commonalities rather than differences, presumably as this reduces the focus on group-based disparities that favor their own group (Saguy, Dovidio, & Pratto, 2008), the present research suggests that even when dominant group members are confronted with inequality,

positive contact experiences may still occur. While the present study did not focus on participants' willingness to focus on disparities per se, it did make them salient and still found positive behavior exhibited toward disadvantaged group members and even positive responses from members of these lower-status groups in Study 3.

Specifically, in Saguy and colleagues' research, participants were asked to discuss commonalities or differences in an encounter with an outgroup member. Commonalities-focused contact led disadvantaged group members to more favorable intergroup attitudes and less attention to inequality, thereby leading to more optimistic views of intergroup contact (Saguy et al., 2009; Study 1). Moreover, lower-status group members viewed inequality as more legitimate when focused on commonalities, undermining their tendency toward making attributions toward discrimination (Saguy & Chernyak-Hai, 2012; Study 1). The current studies differed from this previous research in that participants were given detailed historical information about the disadvantaged group from an outside source before communicating with an outgroup member rather than assigned to discuss commonalities or differences in particular and thus did not restrict their discussion to such an over-arching theme. Perhaps then increasing awareness of inequality through the present means can be helpful for moving toward a more harmonious society if these interactions are more positive and if they do indeed lead to further intergroup contact experiences (Pettigrew & Tropp, 2006).

A word of caution with respect to the present findings is warranted. Given that a large number of tests were run it is possible that some of the significant effects arose due to chance. Although steps were taken to try to bolster the validity of the findings through replication across studies, further replication in future research would strengthen support for the present findings.

In sum, although it may seem to follow from past research on system justification that making injustice salient can only backfire in how dominant group members treat minority group members, the present research suggests the contrary. That is, calling attention to injustice can be helpful and knowledge of intergroup issues does not necessarily lead to negative reactions.

Directions for Future Research

The present research provides important information in terms of how dominant group members react to information regarding injustice in intergroup interaction settings. Yet the exact mechanism driving these effects remains unknown. Future research is necessary to uncover why the manipulation resulted in more positive behavior. Perhaps future studies could assess guilt in an intergroup interaction context following the threat manipulation but before behavior. Although this would presumably confound the effects of the manipulation on behavior, it would be able to test whether guilt is in fact activated and potentially driving the effect of positive behavior in the first and third studies.

Furthermore, the present findings stand in stark contrast to the outgroup derogation traditionally found in the system justification literature. That is, the interactive nature of the present research appears to lead individuals away from victim blame. As mentioned, this could likely be a result of mitigating guilt feelings through positive behaviors in Studies 1 and 3. However, future research is needed to examine this more fully.

Future research is also needed to fully understand when derogation of outgroup members is more or less likely in intragroup conditions. Indeed, the present research did not find evidence of such an effect. I suggest that this may be a result of the experimental context leading individuals away from reporting negative attitudes toward outgroup members. Still, this remains an area for further exploration.

Although the less negative behavior resulting from the perceived system threat is crucial, it would have been nice to see more evidence of longer-term positive behavioral intentions. For example, willingness to support student groups in favor of disadvantaged group members and support for affirmative action policies would imply a step in the right direction toward positive social action. Perhaps future research could look into framing injustice in a way that motivates individuals toward such social change initiatives. Study 1 did show a marginal effect for allotting funds to an organization supporting the outgroup when the system was threatened, however, this was not evident in the second and third studies, nor did participants increase support for affirmative action policies under such threat. This may at first blush appear to fall in line with Saguy and colleagues' (2009) suggestion that positive intergroup contact experiences can take away from the focus on inequality, thereby decreasing attention paid to the need for social action. However, although support in the present set of studies was not increased, it was not decreased either. Thus, perhaps presenting the information in a way that highlights more of a focus on what individuals can do to assist in rectifying injustices or to maintain their positive behaviors would be beneficial for longer-term outcomes rather than just focusing on what has previously gone wrong. Indeed, research would do well to investigate the sustainability of the positive behavioral effects found here to ensure that the positivity is not just short-lived.

Finally, the present research focused on examining the dominant group's reactions to perceived system fairness. While minority group members were physically present in the third study, this study examined the effects of dominant group members' reaction to a threat on minority group members, not how the threat directly affects minority group members. Research examining intergroup attitudes suggests that system justification leads minority group members

to feel less positively about the group to which they belong and to increased outgroup favoritism (see Jost & Hunyady, 2005). How this translates into behavior exhibited is not yet known.

It seems likely that a lower-status group member faced with his or her own group's misfortune might try to compensate for negative perceptions of his or her group when interacting with a higher-status group member. In particular, minority group members have a desire to be respected and perceived as competent more than they do to be liked and perceived as warm (Bergsieker, Shelton, & Richeson, 2010). With dominant groups member holding the opposite goal, it is possible that this combination could lead to misunderstandings across groups akin to those seen with respect to intergroup friendship formation (e.g., Vorauer & Sakamoto, 2006). Specifically, dominant group members seeking to be liked and minority group members seeking to be respected could both pursue their goals with even more vigor in the case of salient threat.

Further research may also seek to examine the reactions of other ethnic minority groups as well, especially given that not all ethnic minority groups approach and experience interracial interaction in the same way (Mendoza-Denton et al., 2002). Perhaps other perceived high-competence minority groups (e.g., career women; see Fiske et al., 1999) would provoke effects similar to the Asian outgroup used in Study 2 if they are indeed seen as more threatening outgroups. Dominant group members' responses to other lower-status racial minority groups (e.g., Blacks and Latinos; see Bergsieker et al., 2010) then might show effects similar to those found in Studies 1 and 3.

Implications and Conclusion

The present research advances our knowledge of the system justification motive beyond attitudes and suggests further widespread implications for considering the context in which social injustice is made salient. Specifically, dominant group members' reactions to injustice

may be more positive in interactive situations than, for example, reading about them in general media reports in the news. Thus, raising concerns about system unfairness may not be interpersonally costly and could actually be beneficial. Still, as previously discussed, it is important to take into account the source of the potentially threatening information when making it salient in the intergroup interaction context to avoid minority group members being viewed negatively as complainers (Czopp & Monteith, 2003; Kaiser & Miller, 2001). Nevertheless the present research highlights the potential for making advantaged group members aware of injustices towards those of lower status to encourage more positive interactions.

Further, the effects of being made aware of unfairness on many other outcomes may also depend on the nature of the context in which this awareness arises. For example, so as not to appear ignorant, individuals may be more alert to information when it pertains to a current situation involving interacting with a member of the disadvantaged group.

In conclusion, the present research suggests that system threat instantiated in an interaction setting can have positive effects on dominant and minority group members' intergroup interaction behavior. With the current, and increasing, ethnic diversity within the nation, it is imperative that we find ways to improve and maintain social harmony. The present findings provide a solid basis for future examination of the effects of justice and legitimacy on intergroup interaction and suggest that calling attention to unfairness does not necessarily have to lead to derogation and defensiveness but can have positive effects as well.

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Table 1

Means and Standard Deviations for Pilot Study

Ethnic Group in Article	Control	Threat	Low Threat
Aboriginal	6.32 (.22)	5.67 (.23)	6.45 (.22)
Chinese	6.52 (.23)	5.77 (.22)	6.14 (.23)

Note. Means are presented with standard deviations in brackets.

Table 2

Means and Standard Deviations for Study 1 Measures

	M	SD	Scale Range	ICC
Behavioral Intentions				
Funds to Aboriginal Student Association	16.12	5.85	0-100	
Funds to University Athletics	22.33	13.52	0-100	
Funds to Disability Services	21.22	7.99	0-100	
Funds to International Students Services	17.54	7.42	0-100	
Funds to Students' Union	23.16	11.83	0-100	
Other-Directed Affect & Behavior				
Negative Affect (Self-Report)	1.22	.38	1-7	.54
Positive Affect (Self-Report)	4.59	.67	1-7	.80
Positive Remarks	2.68	2.11		.74
Negative Remarks	.09	.22		.18
Neutral Remarks	3.44	1.80		.23
Questions Asked	2.87	3.21		.97
Self-Disclosure	4.41	1.22	1-7	.83
Breadth	4.44	1.39		.79
Intimacy	4.39	1.33		.74
Warmth	4.87	.97	1-7	.79
Liking	5.10	.71		.7
Interested	4.77	1.26		.77
Friendly	5.34	.93		.73
Attentive	4.30	1.27		.55
Responsive	4.81	1.22		.64
Inhibition	2.06	.69	1-7	.53
Self-conscious	2.41	.91		.35
Reserved	2.16	.92		.40
Inhibited	1.87	.91		.50
Insecure	1.81	.09		.23
Guilt & Evaluative Concern				
Collective Guilt	4.41	1.17	1-7	.87
Guilt (Thought-listing)	1.59	1.10		.54
Guilt (Self-Report)	1.74	1.03	1-7	.72
Guilty Mood (Behavior Coding)	1.57	.61	1-7	.78
Evaluative Concern	4.01	1.73	1-7	.90
Anxiety (Behavior Coding)	2.15	.58	1-7	.77
Anxiety (Self-Report)	3.22	1.11	1-7	.81
Anxiety (Thought-Listing)	0.16	.36		.01
Sympathy (Questionnaire)	5.52	2.04	1-7	
Sympathy (Self-Report)	2.73	1.06	1-7	.72
Defensiveness (Thought-listing)	1.47	1.15		.75
Impressions & Metaperceptions				
Positive Impressions	.08	.41		0.98
Negative Impressions	.01	.06		0
Positive Metaperceptions	.06	.54		0
Negative Metaperceptions	.01	.08		0
Desire for Future Interaction	4.48	.87	1-7	.81
Meta-Desire for Future Interaction	4.07	.76	1-7	.76
Other Measures				
Collective Self-Esteem	6.82	1.07	1-10	.75
Prejudice	3.23	1.22	1-7	.73

Admiration	4.66	2.13	1-7	
Positive Mood	4.06	1.11	1-7	.86
Evaluation of Aboriginals	62.21	21.65	0-100	
Evaluation of Whites	75.10	18.15	0-100	
Aboriginals' Evaluation of Whites	42.79	18.77	0-100	
Whites' Evaluation of Aboriginals	43.44	18.09	0-100	
Policy Support	4.55	1.60	1-9	.72
System Justification (Manipulation Check)	5.99	1.41	1-9	.86
Individual Mood Items (Coding)				
Nervous	1.78	.79	1-7	.56
Excited	3.25	1.29	1-7	.62
Uncertain	2.53	1.05	1-7	-.15
Anxious	1.74	.74	1-7	.31
Enthusiastic	3.88	1.39	1-7	.71
Guarded	2.15	.87	1-7	.22
Angry	1.10	.32	1-7	.07
Interested	5.05	1.08	1-7	.15
Tired	1.67	1.29	1-7	.54
Hostile	1.14	.43	1-7	.61
Careful	2.75	.86	1-7	.82
Resentful	1.13	.42	1-7	.18
Uncomfortable	1.92	.82	1-7	-.001
Bored	1.59	1.13	1-7	.28
Guilty	1.67	.72	1-7	.32

Note. Reliabilities and scale ranges included where applicable.

Table 3

Positive Other-Directed Remarks as a Function of Partner Ethnicity and System Threat in Study 1

1

Partner Ethnicity		Low Threat	Threat
White Canadian			
	Standardized	0.07 (.18) _a	-0.02 (.18) _a
	Non-Standardized	2.92 (.46)	2.63 (.47)
Aboriginal Canadian			
	Standardized	-0.37 (.18) _a	.34 (.19) _a [*]
	Non-Standardized	1.68 (.47)	3.52 (.48)

Note. Means are presented with standard deviations in brackets. Significant condition contrasts are marked with an asterisk ($p < .05$, two-tailed). Common subscripts indicate no simple ethnicity effects within condition.

Table 4

Means and Standard Deviations for Study 2 Measures

	M	SD	Scale Range	ICC
Behavioral Intentions				
Funds to Aboriginal Student Association	12.79	6.78	0-100	
Funds to University Athletics	19.80	12.64	0-100	
Funds to Disability Services	22.52	9.52	0-100	
Funds to International Students Services	19.21	8.37	0-100	
Funds to Students' Union	25.55	12.31	0-100	
Other-Directed Affect & Behavior				
Negative Affect (Self-Report)	1.26	.47	1-7	.73
Positive Affect (Self-Report)	4.59	1.06	1-7	.88
Positive Remarks	3.06	2.16		.85
Negative Remarks	.22	.48		.74
Neutral Remarks	1.26	.85		-.25
Questions Asked	2.79	3.30		.99
Self-Disclosure	4.63	1.37	1-7	.92
Breadth	4.75	1.42		.88
Intimacy	4.46	1.40		.90
Warmth	5.07	.87	1-7	.88
Liking	5.09	.71		.68
Interested	5.17	.96		.83
Friendly	5.33	.69		.75
Attentive	4.93	1.27		.85
Responsive	4.85	1.24		.85
Inhibition	1.95	.07	1-7	.69
Self-conscious	2.42	.88		.49
Reserved	1.88	.88		.74
Inhibited	1.63	.70		.55
Insecure	1.89	.82		.57
Guilt & Evaluative Concern				
Guilt (Questionnaire)	3.33	1.23	1-7	.78
Guilty Mood (Behavior Coding)	1.40	.44	1-7	.35
Guilty Mood (Self-Report)	1.67	.85	1-7	.65
Guilt (Thought-Listing)	2.21	1.68		.83
Anxiety (Behavior Coding)	1.86	.46	1-7	.72
Anxiety (Self-Report)	2.91	1.22		.86
Anxiety (Thought-Listing)	.13	.41		.79
Sympathy (Questionnaire)	3.97	1.99	1-7	
Sympathetic Mood	2.63	1.14	1-7	.80
Defensiveness (Thought-Listing)	1.15	.68		.71
Evaluative Concern	3.97	1.60	1-7	.89
Impressions & Metaperceptions				
Positive Impressions	.23	.06		.89
Negative Impressions	.06	.30		.78
Positive Metaperceptions	.00	.00		0
Negative Metaperceptions	.01	.08		0
Desire for Future Interaction	4.22	1.05	1-7	.84
Meta-Desire for Future Interaction	3.83	.76	1-7	.75
Other Measures				
Collective Self-Esteem	6.68	1.19	1-10	.81
Prejudice	2.93	1.00	1-7	.65
Admiration	5.28	2.31	1-7	

Positive Mood	4.23	.97	1-7	.86
Negative Mood	1.07	.25	1-7	.47
Evaluation of Chinese	67.43	18.79	0-100	
Evaluation of Whites	77.09	16.52	0-100	
Whites' Evaluation of Chinese	57.95	17.84	0-100	
Chinese Evaluation of Whites	58.49	18.82	0-100	
Policy Support	4.16	1.18	1-9	.74
System Justification (Manipulation Check)	6.31	1.13	1-9	.77
Individual Mood Items (Coding)				
Nervous	1.76	.70	1-7	.65
Excited	3.61	1.01	1-7	.76
Uncertain	1.99	.86	1-7	.77
Anxious	1.70	.47	1-7	.33
Enthusiastic	4.11	1.24	1-7	.81
Guarded	1.92	.58	1-7	.36
Angry	1.05	.19	1-7	.30
Interested	4.97	.91	1-7	.76
Tired	1.18	.29	1-7	.33
Hostile	1.10	.38	1-7	.76
Careful	1.98	.51	1-7	.10
Resentful	1.07	.26	1-7	.52
Uncomfortable	1.80	.75	1-7	.59
Bored	1.45	1.06	1-7	.90
Guilty	1.41	.49	1-7	.20
Ashamed	1.42	.49	1-7	.35
Apologetic	1.37	.71	1-7	.75

Note. Reliabilities and scale ranges included where applicable.

Table 5

Significant Interaction Effects on Proposed Mediators for Study 2

Dependent Measure	Partner Ethnicity	Control	Threat
Guilty Mood			
	White Canadian	1.53 (.18) _a	1.65 (.18) _a
	Chinese Canadian	1.25 (.19) _a	2.18 (.18) _b *
Anxious Mood			
	White Canadian	3.23 (.27) _a *	2.97 (.27) _a
	Chinese Canadian	2.23 (.29) _b	3.13 (.26) _b *

Note. Means are presented with standard deviations in brackets. Significant condition contrasts are marked with an asterisk ($p < .05$, two-tailed). Within condition, the simple ethnicity effect was significant for values not sharing a common subscript.

Table 6

Means and Standard Deviations for Study 3 Measures for White Canadian Participants

	M	SD	Scale Range	ICC
Behavioral Intentions				
Funds to Aboriginal Student Association	21.24	9.1	0-100	
Funds to University Athletics	19.27	9.45	0-100	
Funds to Disability Services	26.12	17.65	0-100	
Funds to International Students Services	19.85	10.71	0-100	
Funds to Students' Union	24.73	11.09	0-100	
Other-Directed Affect & Behavior				
Negative Affect (Self-Report)	1.21	.48	1-7	.63
Positive Affect (Self-Report)	5.26	1.07	1-7	.86
Positive Remarks	4.85	2.25		.65
Negative Remarks	.09	.19		.26
Self-Disclosure	4.67	1.26	1-7	.81
Breadth	4.74	1.19		.73
Intimacy	4.45	1.28		.77
Warmth	5.65	.67	1-7	.50
Liking	5.62	.67		.47
Interested	5.60	.85		.58
Friendly	5.75	.78		.57
Attentive	5.85	.72		.48
Responsive	5.63	.83		.53
Inhibition	2.29	1.3	1-7	.78
Guilt & Evaluative Concern				
Guilt (Questionnaire)	3.82	1.41	1-7	.78
Guilty Mood (Behavior Coding)	1.03	.14	1-7	0
Guilty Mood (Self-Report)	1.68	.89	1-7	.31
Guilt (Thought-Listing)	2.73	1.97		.79
Anxiety (Behavior Coding)	2.30	.77	1-7	.59
Anxious Mood (Self-Report)	2.79	1.08	1-7	.80
Anxiety (Thought-Listing)	.53	.77		.91
Sympathy (Questionnaire)	6.39	2.22	1-7	
Sympathetic Mood (Self-Report)	3.26	1.39	1-7	.80
Defensiveness (Thought-listing)	1.98	1.28		.53
Evaluative Concern	4.54	1.72	1-7	.90
Impressions & Metaperceptions				
Positive Impressions	.06	.21		.72
Ambiguous Impressions	.18	.39		.68
Negative Impressions	.23	.55		.98
Positive Metaperceptions	0	0		0
Ambiguous Metaperceptions	.03	.17		1.00
Negative Metaperceptions	.23	.55		.98
Desire for Future Interaction	4.93	1.21	1-7	.92
Meta-Desire for Future Interaction	3.88	.88	1-7	.89
Other Measures				
Collective Self-Esteem	6.81	1.11	1-10	.65
Prejudice	3.04	1.02	1-7	.46
Admiration	5.27	2.38	1-7	
Positive Mood (Behavior Coding)	4.74	.85	1-7	.44
Negative Mood (Behavior Coding)	1.01	.09	1-7	.45
Evaluation of Aboriginals	72.73	21.4	0-100	
Evaluation of Whites	78.18	18.28	0-100	

Whites' Evaluation of Aboriginals	47.27	18.24	0-100	
Aboriginals' Evaluation of Whites	49.39	20.3	0-100	
Policy Support	5.2	1.2	1-9	.62
System Justification (Manipulation Check)	5.67	1.54	1-9	.84
Nonverbal Behavior				
Smiling	4.91	1.76	1-7	.93
Eye Contact	5.83	.92	1-7	.67
Leaning Toward	4.14	1.42	1-7	.95
Fidgeting	3.19	1.58	1-7	.84
Individual Mood Items (Coding)				
Nervous	2.34	.91	1-7	.41
Guilty	1.07	.24	1-7	0
Anxious	1.87	.63	1-7	.34
Guarded	2.18	.98	1-7	.64
Relaxed	4.71	1.01	1-7	.63
Uncertain	2.52	.91	1-7	.57
Secure	4.88	.94	1-7	.33
Hostile	1.02	.11	1-7	.03
Careful	2.34	.99	1-7	.42
Uncomfortable	2.37	.93	1-7	.57
Apologetic	1.05	.24	1-7	0
Prejudiced	1.00	.08	1-7	.06

Note. Reliabilities and scale ranges included where applicable.

Table 7

Means and Standard Deviations for Study 3 Measures for Aboriginal Canadian Participants

	M	SD	Scale Range	ICC
Behavioral Intentions				
Funds to Aboriginal Student Association	20.11	6.69	0-100	
Funds to University Athletics	18.52	6.42	0-100	
Funds to Disability Services	26.02	18.8	0-100	
Funds to International Students Services	21.02	19.08	0-100	
Funds to Students' Union	20.86	5.61		
Other-Directed Affect & Behavior				
Negative Affect (Self-Report)	1.13	.35	1-7	.79
Positive Affect (Self-Report)	5.15	.91	1-7	.84
Positive Remarks	4.11	3.06		.94
Negative Remarks	.11	.18		0
Self-Disclosure	4.9	1.15	1-7	.81
Breadth	5.01	1.13		.69
Intimacy	4.71	1.14		.78
Warmth	5.62	.72	1-7	.77
Liking	5.57	.74		.64
Interested	5.57	.92		.70
Friendly	5.67	.89		.67
Attentive	5.69	.79		.62
Responsive	5.54	.91		.69
Inhibition	2.39	1.32	1-7	.76
Guilt & Evaluative Concern				
Guilty Mood (Behavior Coding)	1.1	.26	1-7	-.14
Guilty Mood (Self-Report)	1.41	.89	1-7	.85
Anxiety (Behavior Coding)	2.39	.81	1-7	.3
Anxious Mood (Self-Report)	2.46	.89	1-7	.75
Sympathetic Mood (Self-Report)	3.42	1.22	1-7	.77
Evaluative Concern	3.61	1.53	1-7	.85
Impressions & Metaperceptions				
Desire for Future Interaction	4.63	.72	1-7	.74
Meta-Desire for Future Interaction	3.74	.86	1-7	.84
Other Measures				
Collective Self-Esteem	6.67	1.25	1-10	.76
Positive Mood (Behavior Coding)	4.90	1.06	1-7	.71
Negative Mood (Behavior Coding)	1.02	.11	1-7	.57
Evaluation of Aboriginals	77.88	18.67	0-100	
Evaluation of Whites	76.67	18.31	0-100	
Whites' Evaluation of Aboriginals	41.36	16.92	0-100	
Aboriginals' Evaluation of Whites	49.7	20.39	0-100	
System Justification (Manipulation Check)	5.23	1.61	1-9	.86
Nonverbal Behavior				
Smiling	5.11	1.62	1-7	.89
Eye Contact	5.65	1.16	1-7	.83
Leaning Toward	4.04	1.02	1-7	.76
Fidgeting	3.48	1.47	1-7	.78
Individual Mood Items (Coding)				
Nervous	2.47	.86	1-7	.44
Guilty	1.14	.37	1-7	-.15
Anxious	1.87	.70	1-7	.60
Guarded	2.34	.99	1-7	.65

Relaxed	4.71	1.04	1-7	.76
Uncertain	2.70	.95	1-7	.59
Secure	5.08	1.15	1-7	.58
Hostile	1.04	.19	1-7	.56
Careful	2.46	.84	1-7	.45
Uncomfortable	2.50	.93	1-7	.46
Apologetic	1.04	.18	1-7	-.05
Prejudiced	.99	.06	1-7	0

Note. Reliabilities and scale ranges included where applicable.

Table 8

Positive Other-Directed Remarks as a Function of Partner Ethnicity and System Threat in Study

3

Partner Ethnicity		Low Threat	Threat
White Canadian			
	Standardized	0.003 (.98) _a	-0.003 (.57) _a
	Non-Standardized	4.93 (2.87)	4.78 (1.66)
Aboriginal Canadian			
	Standardized	-0.51 (.77) _a	.43 (.88) _b *
	Non-Standardized	2.44 (2.52)	5.50 (2.81)

Note. Means are presented with standard deviations in brackets. Significant condition contrasts are marked with an asterisk ($p < .05$, two-tailed). Within condition, the simple ethnicity effect was significant for values not sharing a common subscript.

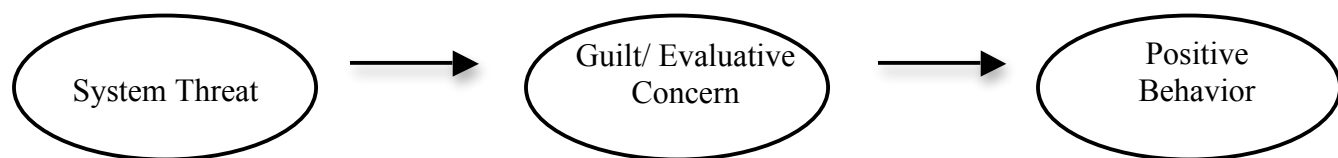


Figure 1. Hypothesized model linking system threat to positive interaction behavior.

Appendix A

Background Information

We have found that students vary a lot in terms of what they already know about the events experienced by different ethnic groups in Canada, so we are providing this information ahead of time so that you and your partner have some background knowledge about each other's cultural history before your discussion. Please carefully read the information presented below and answer the accompanying questions.

History of Aboriginal Canadians in Canada

During the Nineteenth Century, the Canadian Government created the Indian Residential school system to assimilate Aboriginals living in Canada into European-Canadian society. Aboriginal children were removed from their homes and families. The government funded these facilities and their maintenance; the Roman Catholic, Anglican, and United churches provided teachers and education. Aboriginal children were forced to become English-speakers, Christians, and farmers. Children were punished for using their own language and practicing their own faiths. Attendees of the residential schools experienced high levels of physical, sexual, and psychological abuse. In addition, these schools were overcrowded, had poor sanitation, and a lack of medical care. Many children developed tuberculosis, with death rates of up to 69%. Most of the schools closed in the 1960s.

Since then, the government has taken many steps to apologize for these past harms. In 1998 the government made a Statement of Reconciliation. This included an apology to those who experienced sexual and physical abuse and the establishment of the Aboriginal Healing Foundation. They provided the foundation with \$350 million to fund community-based healing projects. In 2005, the government contributed another \$40 million to the fund to continue its important work. In the same year, the government also created a \$1.9 billion compensation package to benefit residential school survivors of abuse. In 2008 Prime Minister Stephen Harper issued a formal apology. Although the past transgressions cannot be erased, it is clear that the government has taken steps to acknowledge their wrong-doings and to try to provide compensation for them.

Many Aboriginal Canadians today have moved off reserves and are now living in urban centres. They retain strong ties to their culture with 99% reporting that they are proud of their ethnic background and 94% reporting that they are happy. In addition, schools are now starting to provide elements of Aboriginal culture into their curriculum which should help educate the Canadian population regarding Aboriginal history and culture.

Events such as these highlight the unfair treatment that Aboriginal individuals have received in Canada, but also the governmental attempts to set things right. Many scholars argue that these attempts have helped to restore Aboriginal Canadians' confidence in the Canadian government and justice system and that these individuals are now focusing on "getting ahead" in contemporary Canadian society. A recent survey found that Aboriginal people living in Canadian cities are generally happy and proud of their heritage and that they have the same desires and

Appendix B

Background Information

We have found that students vary a lot in terms of what they already know about the events experienced by different ethnic groups in Canada, so we are providing this information ahead of time so that you and your partner have some background knowledge about each other's cultural history before your discussion. Please carefully read the information presented below and answer the accompanying questions.

History of Aboriginal Canadians in Canada

During the Nineteenth Century, the Canadian Government created the Indian Residential school system to assimilate Aboriginals living in Canada into European-Canadian society. Aboriginal children were removed from their homes and families. The government funded these facilities and their maintenance; the Roman Catholic, Anglican, and United churches provided teachers and education. Aboriginal children were forced to become English-speakers, Christians, and farmers. Children were punished for using their own language and practicing their own faiths. Attendees of the residential schools experienced high levels of physical, sexual, and psychological abuse. In addition, these schools were overcrowded, had poor sanitation, and a lack of medical care. Many children developed tuberculosis, with death rates of up to 69%. Most of the schools closed in the 1960s, with the last closing as recently as 1996.

Despite attempts at apology and reconciliation, many still wonder how the Canadian Government could employ such a horrific policy that has been referred to as "cultural genocide." Many residential school survivors still suffer. A recent survey of urban aboriginal peoples found that over two-thirds have been affected by residential schools, either attending themselves or having a family member or friend who did. Of those surveyed, over half said the schools had an impact on their lives. Surprisingly, the same survey found that almost half of non-aboriginals living in cities have neither heard nor read about Indian residential schools.

Very few dominant group members have ever been to a reserve and most have never attended an Aboriginal cultural ceremony. In addition, schools are only now starting to provide elements of Aboriginal culture into their curriculum, leaving the majority of Canadian population uneducated about Aboriginal history and culture.

Events such as these highlight the unfair treatment that Aboriginal individuals have repeatedly received in Canada. Many scholars argue that this history of injustice places Aboriginal Canadians at a disadvantage in "getting ahead" in contemporary Canadian society and accounts for Aboriginal individuals' lack of confidence in the Canadian justice system. In sum, it would seem that the Canadian government has been ineffective in integrating Aboriginal Canadians into society.

Please answer the following items by circling the appropriate number:

a) How knowledgeable were you about the events described before reading the information?

1	2	3	4	5	6	7	8	9	10
Not at All									Extremely

b) How often would you say that you encounter reference to these events in the media (newspapers, radio, television)?

1	2	3	4	5	6	7	8	9	10
Never									Extremely Often

Appendix C

Background Information

We have found that students vary a lot in terms of what they already know about the events experienced by different ethnic groups in Canada, so we are providing this information ahead of time so that you and your partner have some background knowledge before your discussion. Please carefully read the information presented below and answer the accompanying questions.

History of Chinese Immigration to Canada

Near the end of the Nineteenth Century, the Canadian Government lured Chinese men to Canada to assist in the construction of the Canadian Pacific Railway (CPR). Approximately 7,000 Chinese men came. The Canadian Government promised Chinese labourers a return ticket to China when their work was completed. The Canadian Government broke its promise and refused to pay for the tickets. In addition, the Canadian Government levied a "head tax" of \$50 (equivalent to more than \$15,000 today) on every Chinese person entering Canada. This tax restricted the number of Chinese immigrants and made it even more difficult for the Chinese labourers to reunite with their families. The Chinese were the only ethnic group required to pay such a tax. In 1901, the Canadian Government raised the head tax to \$100 and in 1904, the Canadian Government increased it to \$500. The Canadian Government collected \$26 million from the Chinese head tax. At the same time, the Canadian Government spent close to \$19 million encouraging and funding the immigration of 3.25 million Europeans to Canada. In 1923 the head tax was dropped and the Canadian Government simply barred Chinese persons from immigrating to Canada.

Since then, the government has taken many steps to apologize for these past harms. Early in 2006, the Conservative government acknowledged the head tax in its Speech from the Throne and promised an apology would be given along with proper redress. The government then hosted public consultations across Canada. In 2006 the government issued a formal statement of redress. This included an apology and compensation for the head tax once paid by Chinese immigrants. Compensation included approximately \$20,000 to be paid to survivors or their spouses. Although the past transgressions cannot be erased, it is clear that the government has taken steps to acknowledge its wrong-doings and to try to provide compensation for them.

As Canada clearly needed to revise its policy on immigration, these changes came in the 1960s and prompted Chinese people to start to immigrate again, this time not only as labourers. Chinese people with higher education also started to immigrate to Canada. There are now over one million Chinese people living in Canada.

Events such as these highlight the many different kinds of opportunities that have been open to Chinese individuals in Canada. Throughout history, a large number of Chinese persons have decided to pursue the advantages of life in Canada. Many scholars argue that Chinese Canadians' ability to "get ahead" in Canadian society is reflected by the rapidly closing gap between Chinese and White Canadians' average annual income (currently about \$8,410) and the

Appendix D

Background Information

We have found that students vary a lot in terms of what they already know about the events experienced by different ethnic groups in Canada, so we are providing this information ahead of time so that you and your partner have some background knowledge before your discussion. Please carefully read the information presented below and answer the accompanying questions.

History of Chinese Immigration to Canada

Near the end of the Nineteenth Century, the Canadian Government lured Chinese men to Canada to assist in the construction of the Canadian Pacific Railway (CPR). Approximately 7,000 Chinese men came. The Canadian Government promised Chinese labourers a return ticket to China when their work was completed. The Canadian Government broke its promise and refused to pay for the tickets. In addition, the Canadian Government levied a "head tax" of \$50 (equivalent to more than \$15,000 today) on every Chinese person entering Canada. This tax restricted the number of Chinese immigrants and made it even more difficult for the Chinese labourers to reunite with their families. The Chinese were the only ethnic group required to pay such a tax. In 1901, the Canadian Government raised the head tax to \$100 and in 1904, the Canadian Government increased it to \$500. The Canadian Government collected \$26 million from the Chinese head tax. At the same time, the Canadian Government spent close to \$19 million encouraging and funding the immigration of 3.25 million Europeans to Canada. In 1923 the head tax was dropped and the Canadian Government simply barred Chinese persons from immigrating to Canada.

Despite attempts at apology and reconciliation, many still wonder how the Canadian Government could employ such a horrific policy that is considered one of the most racist laws ever passed. The government apology issued in 2006 included a formal statement and approximately compensation of \$20,000 to be paid to survivors or their spouses. However, only an estimated 20 Chinese Canadians who paid the tax were still alive at this time and there was no compensation offered to first-generation sons and daughters who were also direct victims.

As Canada clearly needed to revise its policy on immigration, these changes came in the 1960s and prompted Chinese people to start to immigrate again, this time not only as labourers. However, Chinese individuals still experience unfair treatment in various forms. Consider, for example, exceptionally high tuition fees for international students. A case in 2004 saw international undergraduate students' tuition fees increase by 25% (while the fees of Canadian students' were frozen). In 2005, international graduate students' tuition fees were increased by 100%. This increase was implemented despite many students' protests.

Events such as these highlight the unfair treatment that Chinese individuals have repeatedly received in Canada. Many scholars argue that this history of injustice places Chinese Canadians at a disadvantage in "getting ahead" in contemporary Canadian society and accounts for the significant income disparity between Chinese Canadians (average \$22,265 per year) and

Appendix E

Recruitment

My name is _____. I am calling on behalf of the department of Psychology at the U of M. At the beginning of classes you filled out a questionnaire during your introductory psychology class. On the questionnaire you indicated that you were willing to be contacted in order to participate in future studies.

I am calling you to ask for your help by participating in a study I am conducting this term. The study will take about an hour and will give you 2 experimental credits. The study examines social perception in first meeting situations.

Would you like to know more about the study?

If No: Would you be interested in participating?

[If yes, skip to “Would you be available...”; If no, “OK, thank you for your time.”]

If Yes: Our specific focus is on how perceptions are affected by the kind of information that is exchanged between two people. You will be asked to read an article about recent social issues and answer a few questions about it. You will exchange written information with another student and potentially meet the student for a face-to-face discussion. The information that you exchange with the other student includes your answers to some demographic questions (e.g., regarding sex and age) and questions about your personal qualities (e.g., the qualities that are important to how you see yourself). You may also discuss current social issues. You will be asked to fill out some questionnaires regarding your thoughts and feelings during the study. You will also be asked to do an information processing tasks involving word-identification. Before the session begins, you will be asked to sign a form indicating that you agree to participate. This study allows you to learn first-hand about psychological research. There are no significant risks associated with this study. Do you have any questions?

If Yes: Address questions.

If No: Would you be interested in participating?

If Yes: Would you be available to participate on (name date and time)? I should emphasize that in this study we arrange to have two students come in for each session, and the study cannot be run unless both people show up. So it is **really important** that you arrive for the study at the arranged time. Thank you. Please contact me at 474-6936 as soon as possible if you can't make it at the arranged time.

On _____ (agreed upon date and time) you should come to the Duff Roblin Bldg. and wait in the 5th floor waiting room (even if no one else is there). We don't want the two participants in a given session to meet each other ahead of time, so we are asking each person to wait in a different spot. I will come meet you and take you to the lab room where the study is taking place.

If No: OK, thank-you for your time.

Appendix F

***Interaction Study
Consent Form
(to be printed on department letterhead)***

Study Title: First Meeting Situations

Principal Researcher: Stacey Sasaki, PhD candidate, Department of Psychology

Contact Number: (204) 474-6936

Research Supervisor: Dr. Jacquie Vorauer, Professor, Department of Psychology

Contact Number: (204) 474-8250

This study examines social interaction, with a focus on how these issues are discussed between two people. It is being conducted by Stacey Sasaki, a PhD candidate in the Department of Psychology under the supervision of Dr. J. Vorauer.

Thank-you for taking the time to come to the laboratory today. This consent form, a copy of which will be left with you for your records and reference, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

If you agree to participate in this study, you will be asked to fill out a brief "personal information sheet," with the understanding that it will be shared with the other participant in this session. This sheet contains questions about basic demographic characteristics and about your personal qualities. The next step involves filling out an open response sheet, also to be exchanged with the other participant. You will be asked to respond to anything exchanged between you and the other participant so far. You will be asked to fill out some questionnaires regarding your thoughts and feelings during the study and to do an information processing task, with the understanding that you will meet the other participant for a face-to-face discussion. At the end of the session, you will be given an explanation of our hypotheses and the methods that we used.

We would like to emphasize that all of your responses will be kept completely anonymous and confidential. All records of your name will be discarded at the conclusion of the study, such that your responses will be recorded by your participant number only. Only aggregate results (i.e., averages across large numbers of participants) will be reported in any publication of the findings. The data, which will be anonymous, will be stored in a locked laboratory room in the Duff Roblin building. Only the principal investigator and her students and research assistants who are directly involved in this project will have access to the data. As per the American Psychological Association's requirements the data will be stored for 7 years after the date of publication and will subsequently be destroyed.

A summary of the findings will be made available at the end of August 2011. You may provide an email address below if you wish to receive a summary by email.

The session should take approximately 60 minutes and you will receive two course credits for your participation.

This research has been approved by the Psychology/Sociology Research Ethics Board. If you have any concerns or complaints about this project you may contact Dr. J. Vorauer at 474-8250, or e-mail vorauer@cc.umanitoba.ca; alternatively you may contact the Human Ethics Secretariat at 474-7122, or e-mail margaret_bowman@umanitoba.ca. A copy of this consent form has been given to you to keep for your records and reference.

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and /or refrain from answering any questions you prefer to omit, without prejudice or consequence. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.

Participant's Signature

Date

Researcher and/or Delegate's Signature

Date

Please provide an email address below if you wish to receive a summary of the results. This is optional.

Appendix G

Personal Information Sheet #1

(Note: Your answers will be shared with the other participant in this session)

First Name: _____

Section One: Demographic Information

Sex (please circle one): Male Female

Age: _____

Ethnic Background: Please indicate how you would best describe your ethnic background by checking one of the general categories presented below.

- _____ Black
- _____ Chinese
- _____ Filipino
- _____ First Nations/Aboriginal
- _____ South Asian (e.g., East Indian, Pakistani, Punjabi)
- _____ White (European)
- _____ Other (please specify: _____)

Section Two: Personal Qualities

What personal qualities are important to how you see yourself?

What do you consider to be your negative qualities?

Appendix H

Pre-prepared answers of the ostensible partner in the studyFirst Name: Kevin/Anna**Section One: Demographic information**Sex (please circle one): Male FemaleAge: 19

Ethnic Background: Please indicate how you would best describe your ethnic or cultural background by checking one of the general categories presented below.

- Black
 Chinese
 Filipino
 First Nations/ Aboriginal
 South Asian (e.g., East Indian, Pakistani, Punjabi)
 White/European (e.g., English, French, Scottish, Irish, etc.)
 Other (please specify: _____)

Section Two: Personal Qualities

What personal qualities are important to how you see yourself?

- always try to have a good sense of humor and look on the bright side
- friends and family are important to me
- I like the outdoors.
- I like to have fun

What do you consider to be your negative qualities?

- sometimes I'm lazy
- to sensitive?
- not always on time for things
- procrastinater!
- stubborn

Appendix J

“Open Format” Responses

(Note: Your answer WILL be shared with the other participant in this session)

First Name: _____

We now ask you to communicate with the other participant, in a more open format, about the information that you have exchanged so far. For example, you could elaborate on the answers that you gave to the questions on the personal information sheet and/or ask the other participant about his/her answers, as you would in a face-to-face discussion. Respond in whatever way feels right to you, and in as much or as little detail as you like. Continue on the back page if necessary.

Appendix K

Questionnaire

Note: Your responses to this questionnaire will be completely confidential: They are coded by participant number rather than name, and the other participant in this session will never have access to your responses.

****It is very important that you complete the questions in the order in which they appear. Please do not look ahead to upcoming questions, or go back and change answers to previous questions.****

A. Please indicate what you were thinking about during your exchange with the other participant. Circle the appropriate number:

	Strongly Disagree							Strongly Agree
1. I was conscious of my inner feelings.	1	2	3	4	5	6	7	
2. I was concerned about what the other participant thought of me.	1	2	3	4	5	6	7	
3. I was focused on the other participant's feelings.	1	2	3	4	5	6	7	
4. I was self-conscious about how I appeared to the other participant.	1	2	3	4	5	6	7	
5. I was reflective about my life.	1	2	3	4	5	6	7	
6. I was focused on learning about the other participant's personal qualities and beliefs.	1	2	3	4	5	6	7	
7. I was aware of my innermost thoughts.	1	2	3	4	5	6	7	
8. I was wondering about the other participant's innermost thoughts.	1	2	3	4	5	6	7	
9. I was concerned about the way I presented myself to the other participant.	1	2	3	4	5	6	7	

B. Your Feelings During the Discussion.

The next set of items asks you to describe how you have felt so far during your exchange with the other participant. This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate the extent to which you feel this way at this point in your exchange with the other participant.

	1	2	3	4	5	6	7
	<i>Not At All</i>					<i>Extremely</i>	
_____ uneasy							
_____ hostile							
_____ optimistic							
_____ irritated with the other participant							
_____ apologetic							
_____ apprehensive							
_____ resentful							
_____ anxious							
_____ guilty							
_____ sympathetic							
_____ tense							
_____ suspicious							
_____ compassionate							
_____ uncertain							
_____ warm-hearted							
_____ attentive							
_____ careful							
_____ enthusiastic							
_____ inspired							
_____ upset at the other participant							
_____ happy							
_____ guarded							
_____ excited							
_____ angry at the other participant							
_____ tender							
_____ moved							
_____ friendly							
_____ interested							
_____ ashamed							

C. We are all members of different social groups or social categories. We would like you to consider your racial or ethnic background (e.g., White/European, Asian, Black, First Nations) in responding to the following statements. There are no right or wrong answers to any of these statements; we are interested in your honest reactions and opinions.

Please read each statement carefully, and respond by blackening the appropriate number on the bubble sheet. Remember to answer according to how you feel right now, in the present moment. Use the following scale:

1	2	3	4	5	6	7	8	9	10
Strongly Disagree								Strongly Agree	

- 1. I regret that I belong to my racial/ethnic group.
- 2. My racial/ethnic group is considered good by others.
- 3. My race/ethnicity has very little to do with how I feel about myself.
- 4. I'm glad to be a member of my racial/ethnic group.
- 5. People consider my racial/ethnic group to be more ineffective than other groups.
- 6. The racial/ethnic group I belong to is an important reflection of who I am.
- 7. I feel that my racial/ethnic group is not worthwhile.
- 8. Others respect my race/ethnicity.
- 9. My race/ethnicity is unimportant to my sense of what kind of a person I am.
- 10. I feel good about the race/ethnicity I belong to.
- 11. Others think that my racial/ethnic group is unworthy.
- 12. Belonging to my race/ethnicity is an important part of my self image.

D. Please answer each of the questions below by writing the appropriate number in the blank beside the item. Use the following scale:

1	2	3	4	5	6	7
Not at All		Neutral			Very Much	

- 1. Would you like to meet the other participant outside the experiment?
- 2. Would you ask the other participant for advice?
- 3. Would you consider sitting next to the other participant on a 3- hour bus trip?
- 4. Would you consider inviting the other participant to your house?
- 5. Would you be willing to work with the other participant on a job?
- 6. Would you consider admitting the other participant to your circle of friends?

E. The next questions ask about how you think that the other participant views you. Please write the appropriate number in the blank beside the item. Use the following scale:

1 2 3 4 5 6 7
Not at All Neutral Very Much

- ___ 1. Would the other participant like to meet you outside the experiment?
- ___ 2. Would the other participant ask you for advice?
- ___ 3. Would the other participant consider sitting next to you on a 3- hour bus trip?
- ___ 4. Would the other participant consider inviting you to his/her house?
- ___ 5. Would the other participant be willing to work with you on a job?
- ___ 6. Would the other participant consider admitting you to his/her circle of friends?

F. Now we ask a few questions about your general attitudes. These questions address sensitive but important issues. We encourage you to speak your mind and to be as honest as possible.

Please indicate the extent to which you agree with each of the statements below by writing the appropriate number in the blank beside the item. Use the following scale:

1 2 3 4 5 6 7
Not at All Neutral Very Much

- ___ 1. I feel guilty about White Canadians' harmful action toward Aboriginal Canadians.
- ___ 2. I feel guilty about the negative things other White Canadians have done to Aboriginal Canadians.
- ___ 3. I believe I should help repair the damage caused to Aboriginal Canadians by my racial group.
- ___ 4. I feel regret for some of the things White Canadians have done to Aboriginal Canadians.
- ___ 5. I can easily feel regret for bad outcomes brought about by members of my racial group.
- ___ 6. Sometimes I feel guilty because of the benefits that being White brings to me.
- ___ 7. I would feel guilty if I thought that I had behaved in a racially discriminatory fashion.

I. Now we ask a few questions about your general attitudes. These questions address sensitive but important issues. We encourage you to speak your mind and to be as honest as possible.

For all items, please answer according to how you feel right now, in the present moment.

Feeling "Thermometer"

Using the scale presented below, please write a number between 0° and 100° in the blank to indicate:

a) your overall feelings toward Aboriginal Canadians: _____

- 100° extremely favorable
- 90° very favorable
- 80° quite favorable
- 70° fairly favorable
- 60° slightly favorable
- 50° neither favorable nor unfavorable
- 40° slightly unfavorable
- 30° fairly unfavorable
- 20° quite unfavorable
- 10° very unfavorable
- 0° extremely unfavorable

b) your overall feelings toward European (White) Canadians: _____

- 100° extremely favorable
- 90° very favorable
- 80° quite favorable
- 70° fairly favorable
- 60° slightly favorable
- 50° neither favorable nor unfavorable
- 40° slightly unfavorable
- 30° fairly unfavorable
- 20° quite unfavorable
- 10° very unfavorable
- 0° extremely unfavorable

c) Aboriginal Canadians' overall feelings toward European (White) Canadians: _____

- 100° extremely favorable
- 90° very favorable
- 80° quite favorable
- 70° fairly favorable
- 60° slightly favorable
- 50° neither favorable nor unfavorable
- 40° slightly unfavorable
- 30° fairly unfavorable
- 20° quite unfavorable
- 10° very unfavorable
- 0° extremely unfavorable

d) European (White) Canadians' overall feelings toward Aboriginal Canadians: _____

- 100° extremely favorable
- 90° very favorable
- 80° quite favorable
- 70° fairly favorable
- 60° slightly favorable
- 50° neither favorable nor unfavorable
- 40° slightly unfavorable
- 30° fairly unfavorable
- 20° quite unfavorable
- 10° very unfavorable
- 0° extremely unfavorable

J. For the next two items, consider Aboriginal people living in Canada. Using the following response scale and writing the appropriate number in the blank next to the item, please indicate:

	1	2	3	4	5	6	7	8	9	10
Never										Very Often

how often you have felt sympathy for them. _____

how often you have felt admiration for them. _____

K. Finally, please indicate the extent to which you agree with each of the statements below by writing the appropriate number in the blank beside the item. Use the following scale:

	1	2	3	4	5	6	7	8	9
Strongly Disagree									Strongly Agree

___ 1. A certain quota of Aboriginal Canadians, even if not all of them are fully qualified, should be admitted to colleges and universities.

___ 2. Aboriginal Canadians should receive racial entitlement such as affirmative action and other forms of compensation due to the past injustices of European Canadians.

___ 3. After years of discrimination, it is only fair to set up special programs to make sure that Aboriginal Canadians are given every chance to have equal opportunities in employment and education.

___ 4. Aboriginal Canadians have to learn they are entitled to no special consideration and must make it strictly on merit.

___ 5. After years of discrimination, it is only fair to set up special programs to make sure that Aboriginal Canadians are given every chance to have equal opportunities in employment and education.

___ 6. Aboriginal Canadians have to learn they are entitled to no special consideration and must make it strictly on merit.

___ 7. Once affirmative action programs for Aboriginal Canadians are started, the result is bound to be reverse discrimination against White Canadians.

___ 8. If there are no affirmative action programs helping Aboriginal Canadians in employment and education, then they will continue to fail to get the share of jobs and higher education, thereby continuing past discrimination in the future.

L. Please indicate the extent to which you agree with each of the statements below by writing the appropriate number in the blank beside the item. Use the following scale:

1 2 3 4 5 6 7 8 9
Strongly Disagree Strongly Agree

- ___ 1. In general, you find Canadian society to be fair.
- ___ 2. In general, the Canadian political system operates as it should.
- ___ 3. Canadian society needs to be radically restructured.
- ___ 4. Canada is the best country in the world to live in.
- ___ 5. Most Canadian policies serve the greater good.
- ___ 6. Everyone has a fair shot at wealth and happiness in Canada.
- ___ 7. Canadian society is getting worse every year.
- ___ 8. Canadian Society is set up so that people usually get what they deserve.

M. At this point we are interested in "checking in" with you in terms of your understanding of what this study is about. Sometimes when students take part in studies, they form their own ideas about what the researchers might be looking at.

Do you have any ideas about what we might be interested in, aside from what has already been explained to you?

Please outline any thoughts that you have about this in the space provided below.

Appendix L

Debriefing Script

- I would like to thank you once more for taking the time to participate in this study: Your responses will provide us with important information for evaluating our hypotheses, which I'll now explain in greater depth than I did at the beginning.
- As we described at the outset, this study examines how perceptions are affected by the kind of information that is exchanged between two people.
- The main question we are examining centers on how perceived governmental responses to these issues affect social interaction. We are particularly interested in people's experience of intergroup interaction (in this case, interaction with someone who belongs to a different ethnic group than they do) after being exposed to messages highlighting the effectiveness or ineffectiveness of the governmental system.
- In this study participants are exposed to messages arguing that the government either has or has not been effective in integrating Aboriginal Canadians into society. We suspect that this will have a considerable effect on how individuals interact with outgroup members. For example, how do individuals react when a minority group member claims mistreatment or attention is called to the unnecessary suffering of outgroup members as a result of something the ingroup has done? Whether participants receive a message arguing that the government has been effective or ineffective is one of our key *independent* variables or predictors.
- In terms of our *dependent* variables or outcomes, we are interested in looking at how these different messages affect how people feel about themselves and an outgroup member during intergroup interaction, and at how these responses affect behavior toward an outgroup member. Research examining perceived system effectiveness has started to look at the effects of such responses on general intergroup attitudes and judgments. But little is known about how such perceptions affect how well actual intergroup exchanges unfold. In this study, behavior is assessed in terms of the kinds of comments participants make in the open format response sheet (e.g., level of self-disclosure, positive other-directed remarks). Feelings about self and the interaction partner are assessed via questionnaire items such as desire for future interaction with the other participant and perceived similarity/dissimilarity with the other participant.
- Our main prediction is that intergroup interaction will be more positive when mainstream social systems are perceived to be taking efforts to reduce the suffering of outgroup members. When these systems seem unfair, intergroup interaction will be less positive because higher status group members may worry about being viewed negatively by lower status group members or because of defensive reactions designed to maintain the system. The information-processing task that you completed on the computer is designed to assess the activation of different knowledge structures relevant to interpersonal evaluation.

- One thing that I should explain right now is that the personal information sheet that we gave you did not actually belong to another participant. The sheet was “pre-constructed” and there is no other participant in this session.

- Did you suspect this aspect of the procedure at all?

- We apologize for having misled you and wish to explain why we set the study up this way...It is very difficult to create compelling social situations in a laboratory in a way that allows you the kind of experimental control that you need to be able to draw conclusions from a study. By having pre-constructed information sheets, we reduced the huge variability that would be introduced if we had different interaction partners in each session. You have probably learned about the importance of experimental control in your psychology class. In addition, we wanted to look at how perceived system effectiveness directly affects participants, without the complexity of how participants are affected by how this affects their partner’s behavior

- Our overall long-term goal with this research is to get a clearer understanding of how perceived system effectiveness influences social interaction and intergroup interaction in particular. It is our hope that in the long run this research will help to promote positive intergroup relations.

Do you have any questions so far?

Concluding points:

- There are two final points that I would like to mention:

1. Once the study is complete, and your responses from this session have been linked with your mass testing responses, we will keep **no** records that allow us to link names to responses. The data will be stored according to **participant number** only, to ensure anonymity.
2. Please understand how important it is to this research that you don’t tell other potential participants its true purpose. If they were to learn what the study was about, that would make their data completely invalid. If someone asks you about the study, please just tell them something along the lines of what we told you over the phone (e.g., that the study focuses on first meeting situations).

Appendix M

Session

[use gender-appropriate wording throughout]

1. Greet P in 5th floor waiting room and take him/her to _____.

Are you here for _____ (city name)?

When you reach the lab room, tell the participant:

Please have a seat. I have to go to the other waiting room, to get your partner and bring him/her to his/her room. Please wait here.

2. Come back in a few minutes (less than 5 min). Provide following overview (for items in parentheses use condition-appropriate version):

Thanks for coming in today. The other participant, who will be your partner in the study, is here now, in a room around the corner, so we can start the session. Before we begin, please turn off your cell phone, if you have one, now.

This study examines social perception in first meeting situations, with a focus on interactions between people who belong to different ethnic groups. Specifically, we are examining interactions between White (European) Canadians and Aboriginal Canadians. So your partner is Aboriginal/White (depending on ethnicity of participant) Canadian. We are interested in how perceptions are affected by the kind of information that is exchanged between two people.

For each session we schedule two students who haven't met before. Sometimes we have the two students talk together face-to-face, and sometimes we restrict the way that they communicate. In your session, communication will be restricted.

The first step is for each of you to fill out and exchange a brief personal information sheet. This sheet contains questions about basic demographic characteristics, such as age and sex, which are immediately apparent in face-to-face meetings. It also contains questions about your personal qualities. The next step involves filling out a more open format response sheet which will also be exchanged with the other participant. The sheet will provide you with the opportunity to discuss anything you wish with the other participant. You will be asked to fill out some questionnaires along the way and to do an information processing task. That's it!

You and the other participant will have the option of meeting face-to-face at the end. But this part is optional -- we'll only arrange a meeting if both of you are interested.

I should explain that there are going to be some short waiting periods as I go back and forth between you and the other participant.

At this point, I'd like you to sign this consent form, indicating your agreement to participate. The consent form basically summarizes what I've just told you.

[give Ps consent form]

3. Ask P to complete the personal information sheet:

The first step is for you to spend 5 minutes writing answers to the questions on the brief personal information sheet. It's not a lot of time, so you can write in point-form if you'd like. I will come back in 5 minutes to collect your sheet and take it to the other participant.

Do you have any questions?

[answer any that arise]

4. When 5 minutes are up (use gender-appropriate name for other participant throughout):

I have the other participant's sheet here -- his/her name is Kevin/Anna. I will leave it with you so that you can read it over. I'll collect your sheet now and take it to Kevin/Anna.

I'll be back in a couple of minutes to give you more instructions about what's coming next.

[Take Ps' sheet and leave them with the partner's (give same-sex W or A depending on condition; White participants get Aboriginal other; Aboriginal participants get White other).]

5. No more than three minutes later:

****Give participant article A or B depending on condition.****

We have found that participants vary in their background knowledge of different ethnic groups. To help you prepare for the upcoming face-to-face discussion on social issues, we ask that you read the following article about the history of Aboriginal peoples in Canada.

Please read over this article carefully and answer the questions that follow.

[give Ps 10 minutes]

6. Thought-listing task. Once has opened door (if takes too long go check):

Now it is time to do a thought-listing task. Please write down whatever thoughts are on your mind right now without worrying about logic or grammar. You have two minutes, so I will tell you when to stop and start.

Please take a few moments to read the instructions (give them 10 seconds). Please start writing now.

7. Open Format Response Sheet.

The next main step is for you to complete a second, more extensive, response sheet. Your answers on this sheet will be exchanged with the other participant, Kevin/Anna, in the same way as the first. This sheet allows you to expand on what you and the other participant have already said and to add anything else you would like to discuss. These are only guidelines, however, and you may respond in any way you like. You have 15 minutes for this task. I will come back to check on you then. You may now begin.

[give Ps 15 minutes]

8. LDT.

O.K., before we move on to the next exchange and discussion, it is time for the information processing task. We are interested in how exchanging different types of information affects cognitive processing. The task will be done on the computer.

Your task is to indicate, for each string of letters that appears on the screen, whether or not the letters form a word. You make your response by pressing one of these two keys (indicate to participant). You should try to be both fast and accurate. The computer will give you some instructions at the start. [explain practice, two question marks, then experimental trials]

I have to go to the other participant for a few minutes. I'll come back in once you've opened your door to indicate that you are done.

9. Once P is done:

I have one last task for you before your discussion with the other participant. It is time to complete the final questionnaire. It is important for you to understand that your responses on this questionnaire will be completely confidential, and will never be shown to Kevin/Anna. Please read all of the instructions carefully as you go through it, and feel free to ask any questions. Let me know once you are done (or if you have questions) by opening the door.

[Take all materials other than the questionnaire with you when you go.]

10. Debriefing.

O.K., this is the end of the study and I'm now going to tell you a bit more about what we are looking at. (Follow script....)

Appendix N

BEHAVIOR CODING

In this study, participants were told they would be engaged in a written exchange of information with another student, Kevin or Anna. Upon exchanging a brief personal information sheet, the participant knows that Kevin or Anna is the same sex as he/she, is 19 years old, and is of either White/European or First Nations/Aboriginal descent (so as to create an intragroup or intergroup interaction, respectively). Participants also received the following answers from Kevin/Anna to the following questions:

What personal qualities are important to how you see yourself?

- pretty open-minded, good at “reading” people
- always try to have a good sense of humor and look on the bright side
- I care about other people, friends and family are important to me
- I like the outdoors.

What do you consider to be your negative qualities?

- feel and act shy around others I don’t know well
- to sensitive?
- not always on time for things
- procrastinater!

Participants were then asked to complete a second, more extensive personal information sheet. These are the instructions the participants were given

We now ask you to communicate with the other participant, in a more open format, about the information you have exchanged so far. For example, you could elaborate on the answers that you gave to the questions on the personal information sheet and/or ask the other participant about his/her answers, as you would in a face-to-face discussion. Other potential discussion topics include current social issues such as tuition increase/freeze, abortion rights, euthanasia (i.e., mercy killing), and climate change and environmental protection. Respond in whatever way feels right to you, and in as much or as little detail as you like. Continue on the back page if necessary.

ROUND TWO

Count the numbers of the following types of remarks that the participant appeared to direct toward his/her ostensible partner (i.e., you). These include remarks responding or referring to something that the ostensible partner said, and asking him/her a question. Count each remark and indicate the total number of such remarks.

1. Positive Other-Directed Remarks: A positive remark is any remark that conveys friendliness or positive regard (e.g., agreeing with something that the other person said, asking a question).
2. Negative Other-Directed Remarks: A negative remark is any remark that conveys criticism or dislike (e.g., disagreeing with something that the other person said).
3. Neutral/Ambiguous Other-Directed Remarks: Other-directed remarks that are not clearly positive or negative (i.e., you find it difficult to say).
4. Questions: Please count the number of questions asked of the ostensible partner (i.e., you).

Please also count the total number of words.

Appendix O
OPEN-ENDED THOUGHT-LISTING CODING

Please code participants' answers to the question:

Please take two minutes to write down whatever thoughts are on your mind right now. Please write down anything that comes to mind without worrying about logic or grammar. The experimenter will let you know when two minutes are up.

1. ***Impressions of Other***. Please count the total number of comments where participants refer to their impression of the other participant.
2. ***Positive Impressions***. Please also count the total number of impressions that were positive.
3. ***Negative Impressions***. Please also count the total number of impressions that were negative.
4. ***Metaperceptions***. Please count the total number of comments where participants refer to concerns or beliefs about how they are viewed by the other participant.
5. ***Positive Metaperceptions***. Please also count the total number of metaperceptions that were positive.
6. ***Negative Metaperceptions***. Please also count the total number of metaperceptions that were negative.
7. ***General Anxiety***. Please count the total number of comments where participants refer to being nervous or anxious.

Leave other comments uncoded.

Appendix P

Discussion Topics

The following discussion topics are provided to help you exchange information about each other. You may spend as much or as little time on each as you like, and if you find that you are going off on "tangents," that's perfectly o.k. But please do go through them in the order in which they appear.

1. Positive and Negative Academic Experiences
(e.g., courses, instructors, assignments, fellow students)
2. Positive and Negative Social Experiences
(e.g., friends inside and outside university, classmates, roommates, parties, sports, clubs)
3. Career Goals
4. Employment Experiences
5. Relationships with Family Members

Appendix Q

VIDEOCLIP CODING

Please view the first, fifth and tenth minute of the clips before making your judgment (i.e., you do not need to watch the whole video). Please make judgments for each participant separately, once with the sound on and once with the sound off.

ROUND 1: NONVERBAL BEHAVIOR CODING**Please ensure the sound is muted!**

Complete all judgments for the participant on the left before making judgments for the participant on the right. Complete ROUND ONE for all participants prior to doing ROUND TWO. Some of the judgments may be difficult to make. Use the mid-point of the scale if you feel very uncertain about a judgment. Enter the appropriate number on the coding sheet for this participant. Use the following scale:

Smiling

1	2	3	4	5	6	7
Not at All					A Lot	

Eye Contact

1	2	3	4	5	6	7
No Eye Contact					A Lot	

Leaning Toward

1	2	3	4	5	6	7
Leaning Away From				Leaning Into		

Fidgeting

1	2	3	4	5	6	7
Not at All					A Lot	

ROUND 2

Please turn the sound on!

Remember: Complete all judgments for the participant on the left before making judgments for the participant on the right. Use the mid-point of the scale if you feel very uncertain about a judgment. Enter the appropriate number on the coding sheet for this participant. Use the following scale:

1	2	3	4	5	6	7
Not at All			Very Much			

Self- Disclosure

Intimacy

1. To what extent do you think that the participant's comments were intimate in nature?

Breadth

2. To what extent do you feel that you learned a lot about the participant from his/her comments?

Warmth

To what extent do you think that this participant communicated:

1. Liking in the other participant?
2. Interest in getting to know the other participant better?
3. Friendliness toward the other participant?
4. Attentiveness toward the other participant?
5. Responsiveness toward the other participant?

Inhibition

To what extent did the participant appear to be inhibited (e.g., self-conscious, reserved, insecure):

Mood

To what extent did the participant appear to be experiencing each of these mood states?

- | | |
|--------------|-------------------|
| 1. Nervous | 7. Secure |
| 2. Guilty | 8. Hostility |
| 3. Anxious | 9. Careful |
| 4. Guarded | 10. Uncomfortable |
| 5. Relaxed | 11. Apologetic |
| 6. Uncertain | 12. Prejudiced |

Count the numbers of the following types of remarks that the participant appeared to direct toward his/her partner. These include remarks responding or referring to something that the partner said, and asking him/her a question. Count each remark and indicate the total number of such remarks.

1. Positive Other-Directed Remarks: A positive remark is any remark that conveys friendliness or positive regard (e.g., agreeing with something that the other person said).
2. Negative Other-Directed Remarks: A negative remark is any remark that conveys criticism or dislike (e.g., disagreeing with something that the other person said).