

Running Head: AFFECTIVE INFLUENCES ON INTERGROUP THREAT

Feeling Threatened: Affective Influences on Intergroup Threat Perception

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Abstract

Recent revisions to Intergroup Emotions Theory (IET) and Integrated Threat Theory (ITT) suggest that appraisal of an intergroup relationship is dynamic, subject to situational variation. Examining Canadian reactions to Americans, the impact of integral affect (intergroup related) and incidental affect (intergroup unrelated) on intergroup threat perception were assessed. Both affect manipulations significantly influenced threat perception and intergroup emotions, but not action tendencies or behaviour. The findings provide empirical support for these more dynamic models, while confirming previous research. Intergroup threat appraisal and in-group identification predicted distinct emotions, action tendencies, and actual behaviour towards the out-group. Also, the role of intergroup emotions as mediators was partially supported. Advantages of integrating IET, ITT, and research examining affective influences on social judgment were discussed.

Feeling Threatened: Affective Influences on Intergroup Threat Perception

Intergroup relations seem to have an intrinsic capacity to stir up emotions. Yet, topics such as prejudice and intergroup conflict have traditionally been approached from a cognitive perspective, resulting in a “distorted view ... unbalanced by its neglect of affect” (Pettigrew, 1997, p. 76). Over the past decade, considerable effort has been made to address this gap (see Mackie & Hamilton, 1993). In particular, two perspectives have emerged that view prejudice as a predominantly affective phenomenon, Intergroup Emotions Theory (Mackie, Devos, Smith, 2000; Smith, 1993, 1999) and Integrated Threat Theory (Stephan & Stephan, 1996). Both view emotion as a consequence of the appraisal of an intergroup dynamic, with the latter focusing specifically on the appraisal of threat. However, both perspectives have recently acknowledged that these appraisals are subject to a number of contextual factors. The aim of this thesis is to examine empirically these more dynamic models; introducing affect as a potential source of situational variability, while further exploring the emotional and behavioural consequences of perceiving intergroup threat. To achieve this, research examining affective influences on social judgment (Bodenhausen, 1993) was integrated with the intergroup threat and emotion perspectives.

Intergroup Emotion Theory

Mackie and Hamilton's (1993) *Affect, cognition, and stereotyping* encapsulated a shift toward integrating affect into the study of prejudice. In this volume, Eliot R. Smith (1993) put forward a conceptualization of prejudice as a group-based emotion. Incorporating social identity theory (Tajfel & Turner, 1986) and self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) with appraisal theories of emotion (Ellsworth & Smith, 1988; Frijda, 1986; Roseman, 1984), Smith argued that an event, real or imagined, will elicit an emotional reaction if

it is perceived to be relevant to the “socially extended self” as well as the individual self. Thus, according to Intergroup Emotion Theory (IET; Smith, 1993, 1999; Mackie, Devos, & Smith, 2000), prejudice is a “social emotion experienced with respect to one’s social identity as a group member, with an out-group as a target” (Smith, 1993, p. 304).

Identity foundations. The concept of a “socially extended self”, which emerges from the social identity and self-categorization literature, provides the basis for IET. According to social identity theory (SIT; Tajfel & Turner, 1986), an individual’s self-concept encompasses both perceptions of themselves as individuals and as member of groups. One’s social group membership(s) provides an integral aspect of one’s self-concept, called social identity, which functions in the same manner as other aspects of the self (Smith & Henry, 1996). Social identity is the result of group identification, which involves both a cognitive awareness of group membership and a value connotation related to this awareness (Tajfel, 1982). Once identification has occurred, the group acquires emotional significance for the group member.

When one’s social identity is sufficiently salient, perceived similarities between self and in-group members are accentuated, while downplaying the perception of one’s self as a unique individual. When this occurs, the group becomes a central point of reference, and group members align their perceptions, attitudes, *feelings* and behaviors with in-group norms (Hogg, 2000).

Emotion foundations. IET originally adopted an appraisal theory of emotion. Appraisal theorists (e.g., Frijda, 1986; Roseman, 1984) contend that emotions are cognitively determined. According to this perspective, objects, situations, or events are appraised across a variety of dimensions (e.g., pleasantness, agency, certainty, etc.). The result of these appraisals is the experience of a specific emotion (e.g., fear), which in turn, elicit specified responses or action

tendencies. Thus, appraisal theories have an explicit causal assumption: an appraisal elicits an emotion, which subsequently yields an action tendency (Ellsworth & Smith, 1988; Frijda et al., 1989; Roseman, 1984).

Recently, a revision to IET (Mackie & Smith, in press) has shifted its approach to emotion from appraisal theory to James Russell's (2003) conceptual framework of emotion. Russell (2003) claims that discrete emotions, such as fear or anger, should not be conceptualized as basic elements of an emotion theory. Instead, his framework is based around the notion of "core affect". Consistent with other dimensional approaches to emotion (Oatley & Laird, 1987; Watson & Tellegen, 1985), *core affect* is a consciously accessible, objectless feeling, consisting of two bipolar dimensions, hedonic (pleasure-displeasure) and arousal (activated-sleepy) (Russell & Feldman-Barrett, 1999; Russell, 2003). Although core affect is always present, fluctuations are significant in initiating the experience of emotion. These fluctuations have numerous and complex causes that are not immediately apparent.

Pronounced fluctuations in core affect are attributed to an object, initiating what Russell (2003) terms an "emotional episode". The perceiver is then able to direct attention towards the perceived cause of his or her feeling. However, given the complexity of the fluctuation's causes, misattribution is possible (Schwarz, 1990). Once attribution has taken place, a number of factors, including event appraisal, physiological reactions, behaviors, and social norms, are compared with cognitive representations of emotion prototypes in order to label the current experience. This conscious awareness of one's own emotional episode is called an *emotional meta-experience* (i.e., labeling the episode as fear, anger, etc.). This treatment of emotion, as involving self-perception, is consistent with a number of historical perspectives (Bem, 1972; James, 1884; Schachter & Singer, 1962).

Using this framework, Russell (2003) argues that he is able to accommodate both positions of the controversy concerning the primacy of affect versus cognition (Lazarus, 1982; Zajonc, 1980), a debate that is outside the scope of this thesis. For the purposes of the current analysis, we employ Russell's (2003) framework to guide our interpretation, to be consistent with IET (Smith & Mackie, in press), but we do not directly assess that validity of its claims.

Incorporating these perspectives. IET proposes that an intergroup emotion is initiated with a change in one's core affect (Feldman-Barrett & Russell, 1999; Russell, 2003), which may be caused by the presence of an out-group member, a real or imagined intergroup event, or a number of other unrelated stimuli. Once this change is attributed to an intergroup dynamic, appraisal along with other factors are used in labeling the current affective state as anger, disgust, fear, etc. In adopting Russell's (2003) framework, Smith and Mackie (in press) define an intergroup emotion as an emotional episode with a distinct beginning and end, and hence a "time-dependent phenomenon".

By employing this emotion-based theory rather than the traditional attitude theory approach, one is better able to account for the often virulent and violent nature of prejudice and intergroup conflict, as well as its situational specificity (Smith & Ho, 2002). IET offers additional advantages to attitude theory by examining distinct emotions towards out-groups (e.g., anger, fear) rather than bipolar evaluations (i.e., positive or negative). Also, whereas earlier models have approached prejudice as an abnormal reaction, IET is more robust in that it considers prejudice an extreme of a "more or less normal and typical process" (Smith, 1999, p. 190).

Support for IET. A significant body of evidence exists to justify the merger of social identity and affect. The importance of social identity, rather than personal identity, in

determining reactions in intergroup contexts has received substantial support in the relative deprivation research (Pettigrew, 1997). Furthermore, the prominence of affect in intergroup relations has also been supported. Research indicates that emotions are stronger predictors of group attitudes than stereotypic beliefs (Jackson, Hodge, Gerard, Ingram, Ervin, & Sheppard, 1996; Stangor, Sullivan, & Ford, 1991; Stephan & Stephan, 1985).

Many of the premises of IET have also been empirically supported. For example, consistent with IET's use of distinct emotions, four distinct emotion factors emerged in studies on emotional reactions to ethnic minorities (Dijker, 1987; Dijker, Koomen, van den Heuvel, & Frijda, 1996), suggesting, "groups are not simply negatively or positively evaluated" (Dijker et al., 1996, p.326). This conclusion was confirmed in other intergroup emotion studies (Mackie et al., 2000).

As well, the role of social categorization and group identification has also been examined. IET proposes that through social categorization, events that concern one's in-group become personally relevant. When participants in Europe were primed to include Americans in their in-group, they reported greater fear reactions to the 2001 terrorist attacks than those who categorized Americans as an out-group (Dumont, Yzerbyt, Wigboldus, & Gordijn, 2003). Similarly, studies have shown that highly identified group members are more likely to experience strong intergroup emotions (Mackie et al., 2000; Mackie, Silver, Maitner, & Smith, 2002; Pettigrew, 1997). Group members that conceive their membership to be central to their self-concept are more likely to experience intense emotions on behalf of the group (Smith & Mackie, in press).

Empirical support also exists for IET's prediction that the effects of interpreting an intergroup relationship, or intergroup appraisal, on behavioural inclinations toward an out-group

are mediated through the experience of intergroup emotions (Mackie et al., 2000; Miller, Smith, & Mackie, 2004). Mackie et al. (2002) manipulated group-relevant appraisals to successfully yield specific intergroup emotions. They discovered that appraisal of relative strength of one's in-group, in terms of collective support, was directly associated with reported anger towards the out-group. Furthermore, the experience of intergroup anger mediated the relationship between intergroup appraisal and offensive action tendencies. The hypothesis that in-group weakness would yield fear was not supported. However, a subsequent study, using altercation scenarios, demonstrated an association between appraisals of in-group weakness, intergroup fear, and defensive action tendencies (Silver, Miller, Mackie, & Smith, 2001 cited in Devos et al., 2002).

Finally, Silver et al. (2001) reported that interpersonal and intergroup scenarios yielded similar emotional and behavioural reactions. Devos et al. (2002) suggest that, "the experience of intergroup emotion seems as psychologically real and intense as the experience of interpersonal emotion" (p. 127). However, an additional comment is necessary. According to IET, the primary difference between interpersonal and intergroup emotion is that group-based emotions stem from appraisals relevant to one's in-group, while interpersonal emotions are provoked from situations that are personally relevant. Thus, an emotional reaction towards an out-group is not necessarily an intergroup emotion. An individual can react emotionally to an out-group in relation to their individual self, in the absence of group attachment (Brewer, 1999; Smith 1999). An emotional reaction is considered a group-based emotion provided that that one's social identity, rather than one's individual identity, is implicated in the appraisal of the situation or event.

Still, IET theorists have concluded that intergroup and interpersonal emotions operate in a similar manner, in terms of the relationship between appraisal, emotion and action tendencies (Devos, et al., 2002). While, further exploration into potential differences in antecedent

conditions and consequences of interpersonal and intergroup emotion is certainly warranted, these issues lie beyond the scope of this thesis (though we return to this distinction in the discussion).

In summary, IET offers a coherent perspective to address the role of affect in an array of intergroup dynamics. To date, the empirical intergroup emotion research has applied appraisal theory's causal assumptions, viewing intergroup appraisal as the genesis of an intergroup emotion. The shift in emotion theory is relevant because it both alters these causal assumptions and implies a more dynamic conception of intergroup emotions. In particular, Smith and Mackie (in press) note that the time-dependent nature of intergroup emotion is partially due to the fact that "appraisals are subjective interpretations", dependent on "the perceiver's own state" (p. 10). According to the revised IET model, an intergroup emotional episode requires a change in core affect. Thus, a logical question emerges: what influence does one's core affect have on intergroup appraisal?

Integrated Threat Theory

Of particular interest to the topics of prejudice and intergroup conflict is the appraisal of intergroup threat. Consistent with the intergroup emotion approach, Integrated Threat Theory (ITT; Stephan & Stephan, 1996) focuses on the appraisal of threat as a key determinant of prejudice, defined as negative affect associated with an out-group (Stephan & Stephan, 1993). ITT posits that this negative affect is caused by the perception of four types of threat posed by an out-group: *realistic threat*, *symbolic threat*, *intergroup anxiety*, and *negative stereotypes*.

Stemming from realistic conflict theories (LeVine & Campbell, 1976; Sherif, 1966), *realistic threat* refers to threats to the political, economic, and physical well being of the in-group (Stephan & Stephan, 1996). Alternatively, *symbolic threats* are based on symbolic and

modern racism research (Bobo, 1983; Kinder & Sears, 1981; McConahay, 1986; Sears, 1988), defined as threats to the in-group's "way of life" or worldview. These threats arise when a salient out-group possesses different values, customs, standards, and beliefs (Stephan & Stephan, 1996), which either implicitly challenge in-group norms or are explicitly imposed on the in-group. Intergroup anxiety relates to the personal experience of distress during a social interaction with a member of an out-group (Stephan & Stephan, 1985). Finally, negative stereotypes inform expectations of an out-group member's behaviours, which may have negative consequences for the perceiver (Stephan & Stephan, 1996).

Support for the model. The relationship between threat and prejudice has been supported across numerous intergroup contexts (Bizman & Yinon, 2001; Corenblum & Stephan, 2001; Stephan, Boniecki, Ybarra, Bettencourt, Ervin, Jackson, McNatt, & Renfro, 2002; Stephan, Ybarra, & Bachman, 1999; Stephan, Ybarra, Martinez, Schwarzwald, & Tur-Kaspa, 1998). In general, these studies indicate that the threat variables prescribed by ITT account for a substantial proportion of variance in reported prejudice. In a study examining attitudes between Mexicans and Americans, all four types of threat variables were found to be significant predictors of intergroup prejudice (Stephan, Diaz-Loving, & Duran, 2000).

However, other studies have suggested that some types of threat are better predictors of prejudice than others (Stephan et al., 1998). It is likely that this disparity may be partially explained by the groups selected for the studies. Much of the research has focused on the perception of threat posed by immigrants or ethnic minorities to majority group members (exceptions include Corenblum & Stephan, 2001). Yet, threat perception may depend on group status. In low conflict conditions, subordinate groups may experience all four types of threat,

while dominant groups are likely to experience only intergroup anxiety and negative stereotypes (Stephan & Stephan, 1996).

Antecedents to threat perception. According to ITT, the perception of group threat is influenced by antecedents, which include strength of in-group identification, perceived status inequality, previous intergroup contact, and perception of intergroup conflict (Corenblum & Stephan, 2001). Although the addition of these factors has been supported empirically (Corenblum & Stephan, 2001; Stephan et al., 2002), the strength of associations between antecedents, perceived threat, and prejudice has not been overwhelming. However, strength of in-group identification has significantly predicted the perception of threat (Corenblum & Stephan, 2001) and moderated the effects of group threat in predicting prejudice (Bizman & Yinon, 2001).

Revision to the model. Like IET, ITT has recently been revised (Stephan & Renfrew, 2002). Antecedent factors influencing the perception of threat have been expanded to include: *relations between groups, cultural dimensions, individual differences, and situational factors* (Stephan & Renfrew, 2002). The addition of *situational factors* results in a dynamic conception of threat and prejudice relative to its more stable predecessor. As well, the revision distinguishes between *intergroup threats* that are directed at the group itself (realistic and symbolic) and threats directed at individual group members (intergroup anxiety and negative stereotypes) (Bizman & Yinon, 2001; Stephan & Renfrew, 2002). The current study employed this distinction to focus on group threat in particular. Finally, the consequences of threat perception were expanded. Whereas the original model conceptualized the primary consequence to be prejudice, the revised model examines both psychological and behavioural reactions to threat (Stephan & Renfrew, 2002).

The implications of this revision are similar to those of the revised IET model. Both highlight the dynamic nature of intergroup appraisal. Just as intergroup appraisal in general is subject to the perceiver's state, so too is the appraisal of intergroup threat. Therefore, amending our earlier question: how does one's affect influence the appraisal of intergroup threat?

Though the revisions to IET and ITT have opened the door to affective influences on appraisal, both theories have traditionally treated affect as an outcome, synonymous with prejudice. To further explore the potential impact of affect on intergroup threat perception, we now turn to research examining affective influences on social judgment.

Affective influences on social judgment.

Viewing affect as an antecedent to prejudice and intergroup conflict is not a new idea, having provided the basis for early frustration-aggression (Dollard, Doob, Miller, Mowrer, & Sears, 1939) and scapegoat (e.g., Allport, 1954) models of prejudice. In general, these perspectives, and later revisions (Berkowitz, 1989), argue that societal stressors (e.g., economic hardships) provoke negative affect, which cause individuals to aggress towards an appropriate target (e.g., a minority group). While these early approaches may have been limited by their specific focus, they do provide a foundation and historical context to discuss affective influences on intergroup relations.

In the same volume that Smith (1993) introduced his affective notion of prejudice, Bodenhausen (1993) summarized research on the affective influences on stereotyping and social judgment. He distinguished between three types of affect: *chronic integral affect*, *episodic integral affect*, and *incidental affect*. Chronic integral affect refers to a relatively stable affective reaction to an out-group. In contrast, episodic integral affect is situationally determined, provoked by a particular intergroup situation. Finally, incidental affect involves emotional

reactions completely unrelated to a given intergroup relationship, but can potentially influence perceptions and reactions to an out-group.

Affect is generally believed to influence social judgment in a mood congruent manner. That is, individuals in a negative mood will attend to and make accessible negative information regarding an out-group (Bower, 1991; Forgas, 1995), or use their mood itself as information (“How do I feel about them?”) (Schwarz, 1990). In the case of incidental affect, an affective reaction unrelated to an intergroup situation may be *misattributed* to the out-group (Schwarz, 1990), provided that the affect has not been attributed elsewhere (Schwarz & Clore, 1983). Conversely, integral affect influences attitudes and perceptions toward the out-group that initially provoked the affective reaction (e.g., Dijker, 1987; Stangor et al., 1991). Thus, negative affect, whether integral or incidental, is expected to promote prejudice and conflict, while positive affect would be expected to ameliorate intergroup relationships.

However, empirical evidence suggests that the story may not be this simple. Distinct types of negative affect (i.e., anger, fear, and sadness) have been shown to have differential effects on social judgment (Bodenhausen, Sheppard, & Kramer, 1994; Lerner & Keltner, 2000; Lerner & Keltner, 2001; Lerner, Gonzalez, Small, & Fischhoff, 2003). Furthermore, the influence of affect on cognitive processing has counterintuitive implications. Contrary to the principle of mood congruency, in promoting heuristic information processing, positive affect can actually maintain negative group stereotypes (Bodenhausen, 1993). These findings have yielded more complex models to describe the link between cognition and affect (e.g., Forgas, 1995). It is clear that further research is needed to more completely comprehend the ways in which affect can influence intergroup relations.

In a review of these affective influences, Bodenhausen, Mussweiler, Gabriel, and Moreno (2001) argue that the emphasis on incidental affect should be replaced with investigations of integral affect. Although further examination of integral affect is certainly necessary, it is not clear why studying incidental affect should be considered unfruitful. Both types of affect appear pertinent to the present discussion. The way people feel about an out-group has important implications that have been verified (e.g., Stangor et al., 1991; Stephan & Stephan, 1985), but deserve further attention. However, the fact that the source of an affective reaction can never be fully isolated suggests a ubiquitous influence of incidental affect. Admittedly the recent focus on incidental affect seems reversed. It would appear that integral affect's impact on intergroup relations should be first established before examining whether these effects generalize to incidental affect.

Although the impact of affect on cognition is well established (Bodenhausen, 1993, Forgas, 1995; Forgas & Fiedler, 1996; Isen, 1987; Schwarz, 1990), these effects have not been investigated within the context of IET and ITT. Furthermore, the revisions to IET (Smith & Mackie, in press) and ITT (Stephan & Renfrew, 2002) have yet to be empirically examined. These more dynamic conceptions of intergroup threat and emotion yield questions regarding the contributing factors of this situational variability. While there are likely a number of factors that may influence how an intergroup dynamic is appraised, affect emerges as a potential *situational antecedent*, in light of the research discussed above.

Aims of the present study

The primary aim of the study was to examine affective influences on intergroup threat perception and the experience of intergroup emotion. The intergroup threat and emotion literature, to date, has approached affect as a consequence of intergroup appraisal. However, we

argue that intergroup appraisal does not occur in an affectively neutral state, and thus, the current affect of a group member may influence how a group dynamic is perceived and the reaction it provokes.

Using US/Canadian relations as an intergroup context, we sought to establish the impact of both integral and incidental affect (Bodenhausen, 1993) on intergroup threat perception, emotion, and behaviour. This central goal was subdivided into two distinct questions. First, does affect related to the American out-group (integral affect) influence perceptions of and reactions to US/Canadian relations? Second, are these effects also found when the affect is unrelated to the intergroup dynamic (incidental affect)? This second question was included since the integral affect manipulation was expected to both provoke an affective reaction and provide additional information about the relationship. Therefore, the incidental affect manipulation was employed in order to isolate the influence of affect. It is important to note that the aim was *not* to contrast the effects of these two types of affect (for reasons to be discussed below).

In addition, we intended to make other contributions to the IET and ITT literatures, while assessing previous claims. Although the use of distinct emotions as outcomes is fundamental to IET, differentiated emotional states have not been applied to intergroup threat research. Our aim was to confirm previous finding regarding specific emotional reactions towards out-groups (Dijker, 1987, Dijker et al., 1996; Mackie et al., 2000), and apply this to the intergroup threat literature. It may be beneficial to parse out distinct emotions caused by perceiving various levels and types of threat. Furthermore, whereas previous research has been limited by its reliance on action tendencies to describe behavioural consequences (Devos et al., 2002; Mackie et al., 2000), a behavioural measure was used in the current study. The addition of behaviour as a

consequence of threat perception (Stephan & Renfrew, 2002) has yet to be empirically supported. As well, the IET prediction that intergroup emotion mediates the effect of intergroup appraisal (intergroup threat in particular) on behaviour was assessed empirically, to examine whether this prediction applies to ITT. Finally, US/Canadian relations have not yet been explored in this theoretical context. This intergroup dynamic provides a timely naturalistic setting to examine these phenomena.

Thus, the study can be conceptualized as two parallel pursuits: (1) establishing affective influences on intergroup threat perception, emotion, and behaviour, and (2) assessing and extending previous findings, with a focus on further integrating ITT and IET.

Hypotheses

From these aims, we generated the following hypotheses:

The effects of the affect manipulations. We hypothesized that both the integral and incidental manipulations would yield significant main effects on the appraisal of group threat, emotions towards the out-group, action tendencies, and intergroup behaviour. Specifically, participants in the negative integral affect condition were expected to report greater levels of intergroup threat, negative intergroup emotions, discriminatory action tendencies and behaviours than those in the positive integral and control conditions. Similarly, the negative incidental affect manipulation was expected to demonstrate the same main effects relative to the positive incidental and control conditions.

Since positive mood has been associated with heuristic information processing (Bodenhausen, 1993), we anticipated that participants in the positive affect conditions would respond to the dependent measures in a manner consistent with pre-manipulation attitudes. Thus, significant differences on the dependent measures were not expected between the positive

conditions and the control, once pre-manipulation attitudes towards the out-group were controlled.

Specific emotions toward the out-group. Consistent with previous findings (Dijker, 1987; Dijker et al., 1996; Mackie et al., 2000), we hypothesized that the American out-group would provoke specific emotional reaction (e.g., fear, anger), rather than positive or negative evaluations.

The effects of intergroup threat appraisal. We predicted that the appraisal of symbolic threat would be positively associated with reported anger or hostile intergroup emotions, offensive action tendencies, and discrimination against Americans in the behavioural task. On the other hand, the appraisal of realistic threat was expected to predict fear-related intergroup emotions and defensive action tendencies.

The effects of in-group identification. In-group identification was expected to be associated positively with negative emotions towards the out-group, and negatively with positive emotions. It was also anticipated that in-group identification would be positively related to discriminatory action tendencies and behaviours toward the out-group, as well as in-group behavioural bias.

Intergroup emotions as mediators. Lastly, we hypothesized that the mediational role of intergroup emotion would be supported empirically, consistent with previous findings (Mackie et al., 2000). Namely, the effects of intergroup threat appraisal and in-group identification on intergroup action tendencies and behaviour would be mediated through the experience of intergroup emotion. This hypothesis was included to assess previous IET finding; however, the causal implications of mediation in this context are discussed below.

Before turning to the study itself, some qualifications should be articulated. First, the project should not be considered a political science exploration into US/Canadian relations. The dynamics between these two nations are complex and deserve further investigation, particularly given recent animosities. However, the current study uses this relationship to examine psychological processes, and not the relationship itself. It is anticipated that the results will generalize to other intergroup contexts. Moreover, the study does not intend to reopen the debate on the primacy of emotion versus cognition (Lazarus, 1982; Zajonc, 1980). The effects of affect on appraising intergroup threat will be examined, without implying that this affect is induced independently of and prior to cognition in general.

Method

Participants

100 Canadian undergraduate students participated in the study. The sample consisted of 65 females and 35 males, with ages ranging from 17 to 36 ($M = 19.28$, $SD = 2.43$). Each participant received a partial course credit and/or \$5-20 for their participation. (See Appendix N for a complete summary of the demographic data).

Procedure

The study was presented to participants as a social psychological investigation of Canadians' attitudes towards other nations, not mentioning emotions, threat, or a specific interest in US/Canadian relations. A computer-based procedure was employed. All measures were administered online and submitted into a database. As well, the affective manipulations were in an online newspaper format. Although the study was online, all sessions were conducted in a lab under supervision.

Each participant was randomly assigned to one of five experimental conditions: (1) negative integral affect, (2) positive integral affect, (3) negative incidental affect, (4) positive incidental affect, and (5) control¹. Again, the purpose of these conditions was to examine two distinct effects: the influence of integral affect and the influence of incidental affect (see Figure 1 for a general overview of the experimental design). After informed consent was collected, participants completed a series of short online questionnaires, including a biographical questionnaire, a measure of identification as a Canadian, and a measure assessing pre-existing attitudes towards the American out-group. This was followed by the presentation of the experimental manipulations.

The integral affect manipulation. To manipulate integral affect, participants read an article on US/Canadian relations. The story discussed the findings of a mock survey revealing Americans' opinions of Canadians. In the *positive* condition, the poll's findings illustrated Americans' admiration and respect of Canadians (see Appendix A), whereas the article used in the *negative* condition highlighted Americans' condemnation and disrespect for Canadians (see Appendix B).

Incidental affect manipulation. Conversely, the incidental affect manipulation attempted to provoke affect unrelated to the intergroup relationship. Participants were instructed to briefly survey the front page of an online newspaper, designed to elicit *negative* (see Appendix C) or *positive* (see Appendix D) affect through headlines, images, and colours. References to the US, terrorism, mad cow disease, and other issues that may cause reflection on US/Canada relations were avoided. At the bottom of the cover page was a link to the integral affect manipulation. However, when participants clicked on the article, they were instructed to answer the various dependant measures before reading it.

The nature of the manipulations was quite different. The integral affect manipulation relied on information within the text of the article to provoke an affective reaction, while the incidental affect manipulation employed colours, pictures, and headlines to achieve the same ends. Due to this asymmetry in the manipulations, direct empirical comparisons between the incidental and integral affect conditions were not made. Such comparisons would speak to the differences between these manipulations in particular, rather than the effects of incidental and integral affect in general.

Following the manipulation, participants completed various dependent measures assessing intergroup threat, emotions and action tendencies towards the out-group, and core affect. In the control condition, the participants were administered the threat survey immediately following the pre-manipulation attitude survey.

In the final section of the experiment, actual behaviours towards in-group and various out-group members were assessed. Participants were informed that some sections of the experiment are part of an international study involving six nations (Canada as well as the five nations from the pre-manipulation attitudes measure). The final section allowed participants to interact with other participants in other countries. They were told that this interaction was not immediate; and that they will be randomly assigned to the other participants following the study's completion. Participants then engaged in two types of 3-person common pool tasks, with and without the possibility of excluding another participant from receiving their share of the pool.

Measures

Personal information. Demographic information (e.g., gender, age, religion, citizenship, country of origin) was obtained with a short biographical survey. Within this personal

information form were two questions regarding the participants' current mood (valence and level of activation) to establish baseline affect (see Appendix E).

In-group identification. Participants' level of identification as Canadians was measured with a 4-item identification questionnaire (Ellemers, Spears, & Doosje, 1997). The questionnaire uses a 9-point scale, anchored by 1 (*not at all*) and 9 (*very much*) (see Appendix F).

Pre-manipulation attitudes toward the out-group. Participants were asked to indicate the degree to which they like, respect and are similar to 5 national groups (Americans, Australians, British, Chinese, and Iranian). Responses were given on a 10-point scale, anchored by 0 (*not at all*) and 9 (*very much*). The primary question of interest was the extent to which participants "liked" Americans prior to the experimental manipulations. The other questions were used to enhance the cover story of the experiment (see Appendix G).

Core affect. Core affect was measured with a 16-item list of adjectives used by Russell and Feldman-Barrett (1999) in a figure describing core affect. All of the items have been used in previous measures of affect (Feldman-Barrett & Russell, 1998; Mayer & Gashke, 1988; Västfjäll, Fiman, Gärling, & Kleiner, 2002; Watson, Clark, & Tellegan, 1988). Participants indicated on a 10-point scale the extent to which these terms described their current affect (see Appendix H).

Realistic threat. Perceived realistic group threat was assessed with 5 items adapted from previous ITT research (e.g., Stephan et al., 1998). Participants were asked to indicate their agreement with statements, such as "Americans have too much influence on the Canadian economy." on a 10-point scale (*A = strongly disagree, J = strongly agree*) (see Appendix I).

Symbolic threat. The perception of threats to Canadians' "way of life" posed by the American out-group was assessed with 6 items, developed from Stephan's (1998) *Racial Attitude*

Scale. Items included, “Americans should not try to impose their values on Canadians”.

Participants specified their agreement with these statements on a 10-point scale (see Appendix J).

Intergroup emotions. Reported emotional reactions to the American out-group were measured using an 18-item list of emotion terms (e.g., ‘resentment’, ‘fear’, ‘admiration’, etc.). All items have been used in previous intergroup threat (e.g., Stephan et al., 1998; Stephan et al., 2000; Zarate et al., 2004), and intergroup emotion (Dijker, 1987; Dijker et al., 1996; Mackie, Devos, & Smith, 2000) research. Participants were asked to indicate the degree to which the items describe their feelings toward the American out-group on a 10-point scale (e.g., 0 = *no hostility at all*, 9 = *extreme hostility*) (see Appendix K).

Action tendencies. Participants’ action tendencies toward the American out-group were measured using a 10-item questionnaire. All items (e.g., ‘confront them’ and ‘attack them’) had been used in previous intergroup emotion research (Dijker, 1987; Dijker et al., 1996; Mackie et al., 2000). Participants were asked to indicate the extent to which Americans make them want to perform the 10 items, on a 7-point scale (1 = *not at all*, 7 = *very much*) (see Appendix L).

Intergroup behaviour. To measure intergroup behaviour, participants were given the opportunity to contribute tokens to a common pool, involving two other participants. Each pool was presented as a multinational agreement. In the first section, which consisted of six agreements, participants were given 10 tokens for each agreement. Two of the agreements involved another Canadian participant (e.g., the participant with another Canadian and an Australian), two involved an American participant (e.g., the participant with an American and an Iranian), and the remaining two agreements involved neither an American nor another Canadian (e.g., the participant with a British and Chinese participant).

Participants were given three general options for each agreement: 1) contribute all their tokens to the pool, 2) contribute some of the tokens and keep the rest, or 3) keep all their tokens. If the total contribution of the three participants was 15 or more, the tokens were multiplied and shared between the participants. If not, all contributions were lost. Conversely, participants were guaranteed to keep all the tokens they choose not to contribute.

The second section consisted of six more agreements. Again, two of the agreements involved another Canadian, two involved an American, and two involved participants from other nations. The agreements functioned in the same fashion, with the exception that they were given an additional option to vote to exclude another participant from their share of the pool. The exclusion option was included to provide an indicator of deliberate discrimination. However, by voting to exclude, they were told that they too would be vulnerable to being excluded, whereas participants not voting were safe from exclusion. Participants were informed that their compensation for participation in the study would be determined by their total number of tokens following the two sections (see Appendix M).

Rationale for methodology

Web-based format. Despite the obvious practical benefits of administering questionnaires online, the computer-based procedure offers additional advantages in examining intergroup phenomena. Much of the information about intergroup relationships, particularly at the level of nations, is presented to us via the media (i.e., television, newspapers, the Internet). The use of the Internet as a source of information on current events continues to grow exponentially. Thus, it is believed that an online newspaper template enhanced the verisimilitude of the manipulations.

US/Canadian relations. The Relationship between Canadians and Americans provides an appropriate intergroup dynamic in terms of salience and relevance. For Canadians, the

saliency of Americans as an out-group is so pervasive that many Canadians resort to references of “not being American” when asked to define their own national identity. Furthermore, recent animosities (i.e., the Iraq War, missile defense, trade disputes, etc.) have attracted substantial media attention on US/Canadian relations.

Results

Overview of the Analyses

Preliminary analyses were performed initially to inform scale construction and assess their reliability. The central analyses reflect the two broad aims of the study. First, the impact of the affect manipulations was determined by examining between-group differences on the dependent measures, using analyses of variance. Again, it should be noted that the impact of each type of affect manipulation was examined separately. Second, relations among variables were examined with regression analyses to assess previous ITT and IET findings, and evaluate the unique contributions made by the current study (e.g., actual behaviour).

Preliminary Analyses

Intergroup threat and in-group identification. First, reliability analyses were conducted on the intergroup threat measure. The responses to the six symbolic threat items were averaged ($\alpha = .78$, $M = 7.37$, $SD = 1.53$), as well as five realistic threat items ($\alpha = .83$, $M = 6.87$, $SD = 1.81$). Similarly, the in-group identification measure showed acceptable reliability ($\alpha = .81$, $M = 7.94$, $SD = .98$).

Intergroup Emotions. Factor analysis was used to determine the structure of emotional reactions to the American out-group². A principal components analysis was performed on the 14 emotion items³, retaining factors with eigenvalues greater than 1 (see Appendix O). The analysis yielded a three-factor solution. The three factors accounted for 69% of the variance. After

varimax rotation, seven items ('hostility', 'disdain', 'hatred', 'rejection', 'resentment', 'contempt', 'anger') loaded strongly on the first factor ($>.52$), four items ('admiration', 'acceptance', 'affection', 'warmth') on the second factor ($>.70$), and three items ('fear', 'worry', 'anxiety') on the third factor ($>.76$). The responses to each factor's items were averaged, yielding an anger ($\alpha = .90$, $M = 3.35$, $SD = 2.12$), positive emotion ($\alpha = .85$, $M = 4.14$, $SD = 1.96$), and fear ($\alpha = .81$, $M = 3.74$, $SD = 2.31$) scale.

Action Tendencies. A principal component analysis was also run on the 10 action tendency items. Again, the analysis retained factors with eigenvalues greater than 1 and extracted a two-factor solution (see Appendix O). The two factors accounted for 59% of the variance. Five items loaded strongly on the first factor ($>.62$) after varimax rotation, with the remaining five items loading on the second factor ($>.61$). The responses to each factor's items were averaged, yielding move-away ($\alpha = .81$, $M = 3.91$, $SD = 1.56$) and move-against ($\alpha = .79$, $M = 3.38$, $SD = 1.46$) scales, consistent with Mackie et al.'s (2000) terminology. The move-away items were 'avoid them', 'seek contact' (reverse scored), 'cooperate with them' (reverse scored), 'have nothing to do with them', and 'keep them at distance'. The move-against items were 'confront them', 'oppose them', 'insult them', 'attack them', and 'argue with them'. It is noteworthy that the two items expected to load on a "positive" factor ('seek contact', 'cooperate with them') more accurately represented a move-toward tendency and thus loaded heavily on the move-away tendency.

Core Affect. Since core affect was manipulated in the study, it was believed that a factor analysis on the core affect items would not reveal an accurate structure of core affect. Furthermore, the sample size did not permit the use of factor analysis for each condition. Thus, the core affect scales were constructed in an a priori fashion, based on previous research

(Feldman-Barrett & Russell, 1998; Mayer & Gashke, 1988; Watson & Tellegen, 1985). Four scales were proposed: (1) pleasant-unpleasant, (2) activated-deactivated, (3) unpleasant/activated-pleasant/deactivated, and (4) pleasant/activated-unpleasant/deactivated. The first two scales are the vertical and horizontal axes of the affect circumplex, whereas the remaining two are rotated 45 degrees (See Figure 2).

Scale items, means, standard deviations, and internal consistencies are listed in Table 1⁴. Given the unacceptable reliability of the activated/deactivated scale ($\alpha = .11$), the rotated axes were selected as variables (unpleasant/activated – pleasant/deactivated and pleasant/activated – unpleasant/deactivated). This treatment of affective space is consistent with the well-accepted PANAS (Watson & Tellegen, 1985). Mayer and Gashke (1988) argue that the distinction between using the valence and activation dimensions as primary axes or the rotated axes employed here is ultimately a matter of choice. Furthermore, despite being advocates of the former approach, Feldman-Barrett and Russell (1998) found “highly similar” results with both models.

Intergroup Behaviour. The common pool games were included in the studies to provide an indicator of actual intergroup behaviour. For the purpose of the thesis, five variables were of particular interest. Contributions were averaged to: (1) agreements that included another Canadian participant ($\alpha = .84$, $M = 7.32$, $SD = 2.21$), (2) agreements with an American participant ($\alpha = .80$, $M = 5.66$, $SD = 2.37$), (3) and those with participants that were neither Canadian nor American ($\alpha = .86$, $M = 5.84$, $SD = 2.54$). As well, exclusion votes for Americans participants and exclusion votes for non-Americans were calculated.

Manipulation Checks

Integral affect manipulations. To assess the effectiveness of the integral affect manipulation, analyses of covariance on reported core affect were conducted with pre-manipulation mood variables (valence and activation) as covariates. There was a significant effect of affect condition on the unpleasant/activated – pleasant/deactivated affect dimension, $F(2,55) = 3.21, p = .048$ (see Table 2). Planned contrasts indicated that participants who read the negative article reported significantly higher levels of unpleasant/activated affect than those in the positive condition ($p = .017$) and marginally, but not significantly, more than those in the control condition ($p = .070$). However, there was no significant difference between the positive and control condition ($p = .496$). As well, the effect of the integral affect manipulations on the pleasant/activated-unpleasant/deactivated affect dimension was not significant, $F(2,54) = 0.42, p = .659$, with planned contrasts revealing no significant differences. Thus, while the negative integral affect manipulation provoked adequate changes in affect, the positive manipulation appears to have been ineffective.

Incidental affect manipulations. The effectiveness of the incidental affect manipulation was assessed in the same manner. The effect of incidental affect condition on the unpleasant/activated - pleasant/deactivated affect dimension was significant, $F(2,54) = 7.86, p = .001$ (see Table 2). Planned contrasts indicated that participants who were presented with the negative front page reported significantly higher levels of unpleasant/activated affect than those in the positive ($p < .001$) and control ($p = .030$) conditions. The difference between the positive and control group was nonsignificant, but in the expected direction, with the positive group reporting less unpleasant/activated affect than the control ($p = .081$).

The effect of incidental affect condition on the pleasant/activated – unpleasant/deactivated affect dimension was also significant, $F(2,54) = 4.63, p = .014$.

Participants in the negative affect condition reported lower levels of pleasant/activated affect than those in the positive ($p = .004$) and control conditions, though not significantly less ($p = .077$). However, the difference between participants in the positive and control conditions was not significant ($p = .213$). This suggests that the positive incidental affect manipulation slightly calmed rather than excited participants.

In general, participants in the control group showed similar levels of positive affect than those in the positive affect conditions. This may suggest that the baseline affect of the participants was generally positive. By stating that the positive affect conditions were ineffective, does not imply that participants in these conditions were not in a positive mood. In conceptualizing the experimental conditions it is important to note that the manipulations were expected alter participants' affect relative to pre-appraisal mood measures, but not expected to yield absolute negative or positive moods.

The Impact of the Affect Manipulations

The central aim of the study was to examine the influence of the affect manipulations on intergroup threat perception, emotion, and behaviour. Therefore, the central analyses examined whether significant differences on the various dependent measures exist between experimental conditions. Given the importance of these between group differences, planned contrasts were performed instead of post-hoc analyses, limiting the possibility of making a Type II error (Hays, 1973). A table of the planned contrasts can be found in Appendix P. From our hypotheses, four key planned contrasts emerged: (1) the effects of the negative integral affect condition relative to the positive integral and control condition, (2) the effects of the negative incidental affect condition relative to the positive incidental and control condition, (3) the effects of the positive integral condition relative to the control, and (4) the effects of the positive incidental condition

relative to the control. We predicted that the two former contrasts would yield significant differences, while the two latter would be nonsignificant.

Intergroup threat perception. In order to assess the impact of the integral affect manipulation on intergroup threat perception, analyses of covariance were employed with in-group identification and pre-manipulation attitudes towards Americans as covariates. The effect of the integral affect manipulation on symbolic threat was significant, $F(2,55) = 5.73, p = .005$ (see Table 3). As anticipated, planned contrasts revealed that participants who read the negative article perceived significantly higher levels of symbolic threat than those in the positive and control condition ($p = .002$), while the positive and control group did not differ significantly ($p = .316$). However, the effect of integral affect condition on realistic threat was not significant, $F(2,55) = 1.57, p = .216$; though, participants in the negative condition reported marginally higher levels of realistic threat than those in the other two conditions, though the difference was not significant ($p = .098$).

What impact did the incidental affect manipulation have on the perception of intergroup threat? Again, in-group identification and pre-manipulation attitudes were used as covariates. The analyses revealed a significant main effect of the incidental affect manipulation on realistic threat perception, $F(2,55) = 4.74, p = .013$, but not on symbolic threat perceptions, $F(2,55) = 2.03, p = .141$ (see Table 3). On the other hand, planned contrasts for both realistic and symbolic threat were consistent with predictions. Participants who viewed the negative front-page perceived significantly greater levels of realistic ($p = .004$) and symbolic ($p = .049$) threat than participants in the positive and control conditions. Furthermore, as predicted, there were no significant differences between the positive and control groups in perceived realistic and

symbolic threat. Thus, both negative integral and incidental affect influenced the perception of intergroup threat.

Intergroup emotions. Did the newspaper articles influence emotional reactions to the American out-group? Again, analyses of covariance were used to answer this question with in-group identification and pre-manipulation attitudes towards Americans as covariates. The effect of integral affect condition on anger was nonsignificant, $F(2,54) = 2.67, p = .078$ (see Table 4). As predicted though, participants who read the negative article reported higher levels of anger than participants in the positive and control condition ($p = .028$), and participants in the positive and control group did not significantly differ. On the other hand, the effect of the integral affect manipulation was not significant on either positive emotion, $F(2,55) = 0.13, p = .881$, or fear, $F(2,55) = 0.09, p = .912$. Moreover, planned contrasts did not reveal any significant between group differences on these two emotion variables. Thus, the integral affect manipulation appeared to have an isolated effect on anger.

Similar to the integral affect manipulation, the effect of the incidental affect manipulation on anger was nonsignificant, $F(2,54) = 2.55, p = .088$ (see Table 4). However, as hypothesized, planned contrasts revealed that participants who viewed the negative front-page reported greater anger towards Americans than participants in the positive and control condition ($p = .031$), while there was no significant difference between those in the positive and control condition ($p = .653$). The incidental affect manipulation also had a nonsignificant effect on positive emotion towards Americans, $F(2,55) = 2.48, p = .093$. Yet, participants in the negative incidental affect condition reported fewer positive emotions toward the out-group than those in the positive and control condition ($p = .032$), while those in the positive condition did not differ significantly from those in the control ($p = .738$). Furthermore, while the main effect of the manipulation on fear was not

significant, $F(2,55) = 2.08$, $p = .135$, participants who viewed the negative front-page reported greater fear toward Americans than those in the positive and control condition, though the difference was not significant ($p = .12$).

Unlike the integral manipulation, the incidental affect manipulation had a more general effect on intergroup emotions. It is unclear whether this difference can be attributed to differences in the type of affect manipulated or the intensity of the manipulations relative to each other.

Action tendencies. Analysis of covariance was also used to examine the impact of the integral affect manipulation on action tendencies toward the American out-group. Contrary to the hypothesis, the effect of integral affect condition was nonsignificant for both the move-away tendencies, $F(2,55) = .51$, $p = .605$, and move-against tendencies, $F(2,55) = 1.11$, $p = .336$. Although planned contrasts did not show any significant differences between condition differences in the two action tendencies, the small observed differences between the groups were consistent with the hypotheses (see Table 5).

Similarly, the effect of the incidental manipulation was also nonsignificant for both move-away tendencies, $F(2,55) = 1.89$, $p = .160$, and move-against tendencies, $F(2,55) = 1.28$, $p = .286$. Though the participants in the negative incidental affect condition reported higher tendencies to move-away and move-against than those in the positive and control conditions (see Table 5), planned contrasts did not reveal any significant differences. Thus, neither affect manipulations significantly influenced behavioural tendencies towards the out-group.

Intergroup behaviour. Finally, to examine the influence of the integral affect manipulation on actual intergroup behaviour, contributing behaviour to agreements involving another Canadian and contributing behaviour to agreements involving Americans were assessed.

Again, in-group identification and pre-manipulation attitudes were used as covariates, along with contributions to agreements not assessed in each ANCOVA to control for individual differences in general contributing behaviour. The integral affect manipulation did not significantly influence contributions to agreements with another Canadian, $F(2,51) = .02, p = .980$, or contributions to agreements with Americans, $F(2,51) = .27, p = .764$ (see Figure 3). For both variables, planned contrasts did not reveal significant differences between the negative and other two conditions.

What impact did the incidental affect manipulation have on intergroup behaviour? Again contrary to the hypothesis, the effect of the cover page manipulation on contributions to agreements involving another Canadian participant was not significant, $F(2,52) = .01, p = .987$ (see Figure 4). As well, the incidental affect manipulation did not appear to influence contributing to agreements with American participants, $F(2,52) = .67, p = .517$. The predicted differences between experimental groups were not supported by planned contrasts.

In summary, the data supports the hypotheses that one's affect influences the perception of intergroup threat specifically, and intergroup appraisal in general. Furthermore, both the integral and incidental affect manipulations significantly influenced reported intergroup emotion. However, contrary to predictions, the affect manipulations did not significantly influence action tendencies towards the out-group or actual intergroup behaviour.

The Impact of Threat Perception and Identification

Next, the influence of the intergroup threat perception and in-group identification on intergroup emotion and behaviour was examined. It was hypothesized that threat perception and identification would significantly predict emotional and behavioural reactions to the out-group, consistent with both the IET and ITT model.

Intergroup emotions. First, the extent to which appraisal of intergroup threat and in-group identification accounted for specific emotional reactions was examined. Each emotion variable (anger, fear, positive) was regressed on appraisal of realistic threat, symbolic threat, and identification with the in-group. Furthermore, pre-manipulation attitudes toward Americans were introduced into the analyses in order to control for opinions of the out-group that may not directly relate to intergroup threat. As well, given that differences between experimental conditions of threat perception were already established, experimental condition was effect coded and entered into the analyses. Finally, consistent with previous IET research (Mackie et al., 2000) the other two emotions were added to control for shared variance between the three intergroup emotions. Thus, the analyses took into account intercorrelations among the variables.

For reported anger toward Americans, the predictor variables accounted for a significant proportion of the variance, $R^2 = .63$, $F(10,88) = 14.95$, $p < .001$. Consistent with our hypotheses, the appraisal of symbolic threat was a significant predictor, while there was a marginal, but nonsignificant effect of level of in-group identification ($p = .064$) (regression coefficients in first column of Table 6). Participants who perceived Americans as posing a symbolic threat reported greater levels of intergroup anger. Once the other predictors were taken into account, appraisal of realistic threat was not a significant predictor of anger.

For positive emotions, $R^2 = .58$, $F(10,88) = 12.02$, $p < .001$, both appraisal of realistic threat and in-group identification were significant predictors, over and above the contribution of other predictor variables (regression coefficients in second column of Table 6). As predicted, participants who identified less as Canadians and perceived less realistic threat reported higher levels of positive emotion towards Americans. Appraisal of symbolic threat was not a significant predictor.

Finally, for fear, $R^2 = .32$, $F(10,88) = 4.12$, $p < .001$, neither appraisal of symbolic threat, realistic threat, nor level of in-group identification were a significant predictors, once the other predictors were taken into account (regression coefficients in third column of Table 6). While our hypotheses regarding predictors of anger and positive emotions were confirmed, realistic threat did not predict the expression of intergroup fear.

Action tendencies. Similarly, regression analyses were used to determine the extent to which appraisal of intergroup threat and in-group identification account for specific action tendencies. Each action tendency variable (move-away and move-against) was regressed on appraisal of realistic threat, symbolic threat, and identification with the in-group. Again, pre-manipulation attitudes toward the out-group, experimental condition and the other action tendency were introduced as additional variables.

For move-against items, $R^2 = .44$, $F(9,90) = 7.93$, $p < .001$, appraisal of symbolic threat was a significant predictor (see Table 7 for regression coefficients). Consistent with our predictions, those who perceived that Americans posed a greater symbolic threat expressed more tendencies to move-against the out-group. Once the other predictor variables were taken into account, neither appraisal of realistic threat nor level of in-group identification were significant predictors of move-against tendencies.

For move-away tendencies, $R^2 = .44$, $F(9,90) = 7.97$, $p < .001$, both appraisal of symbolic threat and in-group identification were significant predictors, over and above the contribution of other predictor variables (see Table 7 for regression coefficients). Highly identified participants and participants who perceived high levels of symbolic threat reported greater tendencies to move-away from the American out-group. Contrary to our hypotheses, appraisal of realistic threat did not significantly predict move-away tendencies. Thus, while the prediction that

symbolic threat perception would yield offensive action tendencies was supported, realistic threat did not significantly predict defensive tendencies. However, the findings support the general assumption that intergroup appraisal predicts behavioural tendencies towards the out-group.

Intergroup behaviour. To what extent did appraisal of intergroup threat and in-group identification account for intergroup behaviour? To answer this question, the average contribution to agreements involving other Canadians and the average contribution to agreements involving Americans were regressed on appraisal of realistic threat, symbolic threat, and in-group identification. As with intergroup emotions and action tendencies, pre-manipulation attitudes and experimental condition were introduced into the analyses. As well, the average contribution to agreements not included in the dependent variable was included to control for individual differences in general contributing behaviour.

For agreements involving another Canadian, $R^2 = .73$, $F(10,86) = 23.18$, $p < .001$, level of in-group identification was a significant predictor of contributing behaviour (see Table 8 for regression coefficients). This finding is consistent with the hypothesis that highly identified group members would be more likely to contribute to agreements involving an in-group member. Neither realistic threat nor symbolic threat were significant predictors of contributions to in-group agreements, once the other predictors were taken into account. This suggests that in-group favouritism was not enhanced by the perception of intergroup threat.

For agreements involving an American participant, $R^2 = .64$, $F(10,86) = 15.53$, $p < .001$, both appraisal of realistic and symbolic threat were significant predictors of contributing behaviour. The direction of these associations is of particular interest. Participants contributing more to agreements with Americans perceived lower symbolic threat, but greater levels of realistic threat. Though it should be noted that neither threat variable was significantly

correlated with contributing behaviour to these agreements (see Appendix R for Pearson correlations). Therefore, this finding should be interpreted with caution, given the number of potential suppressor variables included in the analysis. Once the other variables were taken into account, level of in-group identification was not a significant predictor.

Finally, overt discrimination toward the American out-group was assessed by participants' willingness to exclude an American participant from their share of the common pool. Exclusion votes for non-American participants were also entered into the analysis to control for general excluding behaviour. For exclusion votes for American participants, $R^2 = .19$, $F(9,90) = 2.38$, $p = .018$, appraisal of symbolic threat was a significant predictor, over and above the contribution of the other predictors. Neither level of in-group identification nor appraisal of realistic threat were significant predictors.

The findings were generally consistent with our predictions. The appraisal of group threat and level of in-group identification did in fact predict the emotional and behavioural reactions to the American out-group. That said, the perception of realistic threat did not yield predicted consequences. Realistic threat perception was not significantly associated with intergroup fear or defensive tendencies, and it was negatively associated with discrimination against the out-group.

Mediational Analyses

As discussed above, intergroup emotion has been shown to mediate the effects of intergroup appraisal on intergroup action tendencies (Mackie et al., 2000). It was proposed that the effects of intergroup threat appraisal on both action tendencies and intergroup behaviour would be mediated through intergroup emotion. To test this prediction, Barron and Kenny's (1986) multiple-regression approach was employed, with Sobel scores obtained using an online

calculator (<http://www.unc.edu/~preacher/sobel/sobel.htm>). Consistent with previous IET research (Mackie et al., 2000; Miller et al., 2004), the mediational analyses consisted of three steps. First, each of the potential mediators (the three intergroup emotion variables) was regressed on the predictor variables (in-group identification and threat perception), as described above. Secondly, each dependent variable (behaviour and action tendencies) was regressed on the predictor variables (see above also). Finally, the potential mediators were included into the regression analyses in the second step. Regression coefficients for the mediational analyses can be found in Appendix Q.

Effects on action tendencies. First, to examine whether intergroup emotion mediated the relationship between intergroup threat perception and action tendencies towards the out-group, the three intergroup emotion variables were entered into the regression analyses for each action tendency described earlier.

When the intergroup emotions were entered into the regression analysis for the move-against index, $R^2 = .59$, $F(12,86)$, $p < .001$, reported anger towards Americans ($\beta = .57$, $p = .000$) was a significant predictor. Consistent with the mediational hypothesis, the addition of the intergroup emotion variables eliminated the contribution of appraisal of symbolic threat ($\beta = .11$, $p = .312$). Appraisal of realistic threat and level of in-group identification remained nonsignificant. Using the Sobel test (Baron & Kenny, 1986), it was confirmed that the reduction due to the addition of anger was significant ($Z = 3.05$, $p = .002$). This supports the hypothesis and confirms previous research that intergroup emotion mediates the relationship between intergroup appraisal and action tendencies.

For move-away tendencies, when the intergroup emotions were added, $R^2 = .56$, $F(12,86) = 9.19$, $p < .001$, both positive emotions ($\beta = -.46$, $p = .000$) and fear ($\beta = .17$, $p = .047$) were

significant predictors. The addition of the emotion variables reduced the contribution of appraisal of symbolic threat ($\beta = .15, p = .167$) and level of in-group identification ($\beta = .12, p = .150$), while realistic threat remained nonsignificant. A Sobel test revealed that the reduced contribution of in-group identification due to the addition of positive emotions was significant ($Z = 1.98, p = .047$). However, the appraisal of symbolic threat was not a significant predictor of fear or positive emotions, therefore, the effect of symbolic threat on move-away tendencies was not mediated through intergroup emotion.

Effects on behaviour. Next, we examined whether intergroup emotions mediate the relationship between intergroup threat perceptions and behaviour towards the out-group. For agreements involving an American participant, when intergroup emotions were entered into the regression, $R^2 = .67, F(13,82) = 12.84, p < .001$, anger ($\beta = .21, p = .049$) was a significant predictor of contributing behaviour. However, the effects of both symbolic threat ($\beta = -.22, p = .026$) and realistic threat ($\beta = .23, p = .013$) were not reduced by the addition of the emotion variables. In fact, the contribution of the two threat variables was actually enhanced, suggesting the existence of a suppressor variable. Therefore, while intergroup anger appears to have mediated the effects of intergroup threat perception on tendencies to move against the out-group, anger did not mediate the effects of intergroup threat on actual behaviour towards the out-group.

When intergroup emotions were entered into the regression for votes to exclude American participants, $R^2 = .27, F(11,87) = 2.88, p = .003$, positive emotion towards Americans ($\beta = -.40, p = .006$) was a significant predictor. Once intergroup emotions were added into the analysis, the appraisal of symbolic threat was no longer a significant predictor ($\beta = .23, p = .114$). However, symbolic threat appraisal did not significantly predict positive emotion; therefore, the effect of symbolic threat on willingness to exclude American participants was not

mediated through positive emotions. Therefore, the mediational hypothesis was not supported for actual intergroup behaviour.

Discussion

The introduction of pre-appraisal affect

The primary aim of the study was to examine the influence of affect on the perception of intergroup threat, the expression of intergroup emotions, and behaviour towards an out-group. In particular, it was predicted that intergroup appraisals do not occur in an affectively neutral state, and thus, the affective state of the perceiver may influence intergroup threat appraisal. The findings support this argument. Both the integral and incidental affect manipulation yielded significant effects on intergroup threat perception and reported emotions towards the out-group. Specifically, participants in the negative affect conditions perceived the American out-group as more threatening, in terms of symbolic and realistic threat, and reported higher levels of intergroup anger than those in the positive and control conditions, which was consistent with our hypotheses.

These findings have implications for both Intergroup Emotions Theory and Integrated Threat Theory. The study provides empirical support for a more dynamic conception of intergroup threat. As noted earlier, it has been argued that intergroup threat perception is sensitive to a number of situational factors (Stephan & Renfrew, 2002). The results indicate that these situational variables include the affective state of the perceiver at the time of the appraisal. Therefore, intergroup threat is dependent on both the relationship itself and the context in which it is appraised. It is believed that the same holds true for other types of intergroup appraisal. Hence, the findings also provide support for the revised model of IET (Smith & Mackie, in

press), which views intergroup emotions as “time-dependent phenomena... unfolding across time in a way that may differ from one moment to the next” (p. 1).

The nonsignificant differences between the positive affect conditions and the control were consistent with our predictions. Based on previous findings (Bodenhausen, 1993), we argued that participants in the positive affect condition would respond to dependent measures in a heuristic manner, consistent with their pre-experiment attitudes towards the out-group. However, it cannot be concluded with certainty that the nonsignificant differences were due to heuristic information processing, as the positive manipulation, particularly for integral affect, appeared ineffective. The data indicate that participants in the positive conditions reported similar affect than those in the control group.

Contrary to predictions, neither the integral, nor the incidental affect manipulations had any significant affect on intergroup action tendencies and actual behaviour. These nonsignificant effects can be interpreted in two ways. On one hand, it is possible that the manipulations did not provoke sufficiently intense changes in affect to influence how the participants would behaviourally respond to the out-group. Conversely, perhaps individuals are more prudent in choosing their behavioural reactions than expressing emotion and the perception of threat.

Integral versus incidental affect. Before turning to the other findings, a comment on the nature of the two types of affect manipulations is necessary. While the integral affect manipulation (the articles on US/Canadian relations) did yield significant effects on some of the dependent measures, the manipulation cannot be considered solely affective. Consequently, differences between the integral affect conditions cannot be attributed to integral affect alone, since the article provided non-emotional information concerning the intergroup relationship. Although the articles were designed to avoid issues specific to intergroup threat, the American

out-group was depicted as either cooperative or hostile, which likely influenced intergroup appraisal independently of integral affect.

For these reasons, the study included the incidental affect manipulation, in order to isolate the impact of affect. We predicted that the incidental affect manipulation would yield similar results to the integral affect manipulation. However, it was expected that the non-emotional aspects of the integral affect manipulation, combined with the provoked integral affect would result in more pronounced between-group differences. In fact, the results indicate that the incidental affect manipulation produced more striking between-group differences.

There are a few possible explanations for the relatively smaller effect of the integral affect manipulation. First, it is difficult, if not impossible, to manipulate integral affect in an implicit manner. Thus, the integral manipulations may have been overly transparent. Furthermore, it is possible that Canadians are so inundated with information about US/Canadian relations, that this information is not capable of provoking significant affect. Finally, by providing information concerning the intergroup dynamic, both the negative and positive newspaper articles may have cued chronic integral affect, while attempting to manipulate episodic integral affect (Bodenhausen, 1993). Therefore, the positive article may have cued negative chronic affect, reducing the effectiveness of the manipulation.

Validation and extension of IET and ITT

Another aim of the study was to empirically assess IET assumptions, confirm previous findings, and further integrate intergroup threat and emotion perspectives. Again, the results indicate relative success in achieving this aim.

Specific intergroup emotions. First, the results confirm previous research that out-groups provoke specific emotions (e.g., fear, anger), rather than positive or negative affect (Dijker,

1987; Dijker et al., 1996; Mackie et al., 2000). To our knowledge, specific emotional reactions to an out-group have not been examined in the context of intergroup threat. The results suggest that research on intergroup threat may benefit from examining specific intergroup emotions, rather than 'negative affect', as outcomes. The broad definition of prejudice employed in much of the ITT research (Stephan & Stephan, 1996) may fail to capture the unique contribution of each threat variable.

In the current study, the perception that the American out-group poses a symbolic threat significantly predicted the experience of anger. Alternatively, the perception of realistic threat was negatively associated with positive emotions towards the American out-group. This suggests that each threat variable has unique emotional consequences. However, contrary to our prediction, but consistent with previous findings (Mackie et al., 2000), intergroup fear was not predicted by the appraisal of realistic threat. It is unclear whether these findings are characteristic of the threats themselves or the specific intergroup context examined.

Intergroup behaviour. Furthermore, the study extended previous intergroup emotion research by employing a measure of actual intergroup behaviour, rather than action tendencies alone. The behavioural scenario used appeared to be an effective indicator of intergroup behaviour. In general, the findings obtained with the behavioural measure were consistent with research on group processes and our hypotheses. The measure illustrated striking in-group bias across all experimental conditions, in that participants contributed more to agreements with another Canadian than those with non-Canadian participants. In-group bias has been shown to be a central characteristic of intergroup behaviour (e.g., Brewer, 1999). Furthermore, consistent with our predictions, level of in-group identification was associated with greater contributions to agreements with Canadians, while intergroup anger and symbolic threat perceptions were

associated with lesser contributions to agreements with Americans. Symbolic threat perception was also a significant predictor of willingness to exclude American participants from their share of the common pool.

By assessing intergroup behaviour, additional information regarding the nature of specific threat variables was obtained. It was generally thought that the perception of each threat variable was positively associated with prejudice towards the out-group, which would lead to out-group discrimination. However, the findings indicate that the picture may not be this simple. Just as realistic and symbolic threat variables had unique emotional consequences, the results suggest that they also have unique behavioural implications. It was found that discriminatory contributing to agreements involving an American was positively associated with the perception of symbolic threat, yet negatively associated with realistic threat. Those who perceived that Americans pose a realistic threat to Canadians were more likely to contribute to agreements with Americans. Thus, while intergroup threat perception in general may result in discriminatory tendencies on self-report measures of emotions and behavioural intentions, different types of threat may have different implications once situated in an actual intergroup interaction.

Intergroup emotions as mediators. The study also examined a key prediction of IET, the mediational role of intergroup emotions. Previous findings that the effects of intergroup appraisal on action tendencies are mediated by intergroup emotion were generally supported. For example, anger toward Americans mediated the relationship between symbolic threat perception and move-against action tendencies. However, the effects of threat perception on actual behaviour were not mediated through intergroup emotion.

One possible explanation for this discrepancy involves the difference between self-reported action tendencies and actual intergroup behaviour. Actual intergroup behaviour is

subject to a number of situational constraints and social sanctions (Mackie et al., 2000), whereas self-reported action tendencies are more abstract. While intergroup emotion appears to have a central influence on behavioural tendencies, actual behaviours in the agreement scenarios likely had a number of determining factors (i.e., motivation to maximize compensation, values of fair-play). Furthermore, within the context of the behavioural scenario, intergroup threat perception may have had non-affective consequences. While intergroup threat perception did predict intergroup emotion, it appears to have also informed decisions on the behavioural task, independent of its effect on emotion. Therefore, consistent with the revised ITT model (Stephan & Renfrew, 2002), it appears that prejudice is not the only consequence of intergroup threat perception.

US/Canadian relations. Finally, this study represents the first application of US/Canadian relations to the intergroup threat and emotion literature. This intergroup dynamic proved to be a suitable context to examine the relationship between threat, affect, and behaviour. The purpose of study was *not* to specifically examine the nature of the relationship itself. However, some interesting characteristics were revealed that might inform future research, provide context to the current findings, and assist in generalizing the data. Again, it should be noted that the majority of the findings are expected to apply to other intergroup contexts.

Firstly, though self-categorization theory (Turner et al., 1987) suggests that an out-group is perceived as an undifferentiated whole, there were indications that some participants were able to appreciate out-group heterogeneity. During informal post-experiment sessions, some participants expressed making a distinction between the American government and its policies and the American people. This animosity towards America's leaders, not its citizens, has been

confirmed in Canadian polls (Ipsos-Reid, April 29, 2004). It would have been valuable to determine which participants made this distinction, and which did not.

As well, certain characteristics of the relationship itself may help explain some of the findings. The relationship between Canadians and Americans is characterized by a history of economic, military, and political cooperation, with intermittent disagreements. While differences are often accentuated (Adams, 2004), similarities between the two nations are abundant. Therefore, the inverse relationship between in-group identification and positive emotions towards the out-group may reflect a superordinate North American identity, and may not generalize across all intergroup dynamics.

Another relevant aspect of the relationship involves the implications of residing next to the world's sole superpower. Though a source of resentment for some Canadians, the overall difference in status between the two nations is seldom disputed. Contrary to predictions, realistic threat perception did not significantly predict fear or defensive tendencies. This finding may be specific to this particular dynamic. It may be that realistic threat posed by Americans is perceived as an inherent characteristic of the intergroup relationship, given Canada's stature *vis à vis* the US.

Furthermore, the primarily cooperative nature of the relationship, coupled with apparent status differences, may provide insight into the nonsignificant influence of affect on intergroup behaviour. Discriminatory behaviour towards Americans could bring negative consequences. In the heat of the moment, Canadians may express elevated levels of threat and negative emotion. However, the prospect of action may bring about more pragmatic reflection. This is particularly evident in the inverse relationship found between discriminatory behaviour towards Americans and the perception of realistic threat.

It is noteworthy that the absolute levels of expressed anger towards Americans were actually quite low, though between-group differences were evident. This suggests that Canadians do not feel high levels of animosity towards Americans, as often portrayed in the media. This may represent a baseline, or a reaction to increased attention on US/Canadian relations in recent years. Many participants expressed that they were tired of anti-American sentiments, which they perceived as widespread. Thus, the findings may reflect a certain level of fatigue in opposition to Americans. A natural and necessary extension of this study would be to examine American views of Canadians.

Caveats and limitations

Before discussing how these findings can inform future research, a few caveats should be noted, regarding methodological limitations and conceptual issues.

Self-report measures. A common limitation of the intergroup emotion research is its reliance on self-report measures. The current study is no exception, despite the inclusion of the behavioural measure. The self-report measures that were used are limited by their vulnerability to self-presentational factors (Blascovich, Mendes, & Seery, 2002). Participants may resist expressing negative emotions towards an out-group to avoid insinuations of racism and ethnocentrism. Conversely, other participants may experience fear and express anger to avoid projecting weakness. It was anticipated that using Americans as an out-group, as compared to a minority group, would minimize this self-presentational bias, since expressing strong view towards Americans has become quite acceptable in many circles. However, the potential to bias responses in this context still exists. For this reason, a multi-method approach to measuring emotion is considered desirable (Blascovich et al., 2002).

Effectiveness of affect manipulations. Similarly, many researchers advocate the use of a multi-method approach to mood induction (Forgas, 1995). Another possible limitation of the study concerns the effectiveness of the affect manipulation. It is possible that both the integral and incidental affect manipulations were simply not powerful enough to influence intergroup behaviour (though other interpretations are possible, as discussed above). Furthermore, the findings suggest that the positive integral affect manipulation was particularly ineffective. The rationale for employing an implicit mood induction was to prevent participants from being able to make a direct attribution of their mood to the affect-provoking stimulus. Previous research indicates that once affect is attributed to a particular source, it will not influence subsequent social judgment (Schwarz & Clore, 1983). However, the price of subtlety may have been intensity. Future studies may benefit from using more reliable methods of mood induction, both to examine the impact of more intense affect and to test whether explicit manipulations also influence intergroup threat perception.

Order effects. An additional byproduct of attempting to prevent the attribution of affect to the manipulation was the constant order in which the dependent measures were administered. This did not allow for testing of order effects. By assessing core affect following the intergroup threat questionnaires, it became unclear to what extent the manipulations influenced the affect measure, versus the appraisal of threat. Consequently, the manipulation checks were flawed. An implicit measure of affect (e.g., heart rate, perspiration) could have provided a more appropriate manipulation check, while not alerting participants to the source of their affect. As well, by randomizing the administration of the measures, it would be possible to examine whether the effects of the manipulation dissipated by the time the participants completed the action tendency and behaviour measure, or whether behaviours are not as readily influenced.

Behavioural measure. In addition, it is important to note that the behavioural variables are not simply behavioural manifestations of the action tendencies. Voting to exclude American participants or contributing little to agreements involving Americans cannot be equated to move-against tendencies. In fact, there was likely a confluence of factors determining intergroup behaviour in the agreement scenarios. A key determinant of contributing and excluding behaviour was likely anticipation of the other participants' actions. For example, decisions to exclude an American participant may have been predicated on anticipating the behaviour of the third participant in the agreement. If it was believed that there was a relatively good chance that the Chinese participant would vote to exclude the American participants in Agreement D, then excluding the American may have been related to strategy and self-interest rather than deliberate discrimination. As well, the other nationalities chosen for the scenario and the pairings of each agreement may have confounded responses. However, in total, the four agreements involving another Canadian and the four agreements involving an American were identical in terms of the pairings (one agreement with a participant from each of the four other nations).

Clarifying the constructs. Turning to more conceptual matters, the constructs employed in the study require further clarification. The difference between integral and incidental affect should not be equated with the distinction between intergroup and interpersonal emotion. Integral affect is affect related to the intergroup dynamic being examined, while incidental affect is defined as not related to that particular intergroup dynamic. However, incidental affect may reference both individual and social identities.

But is integral affect distinct from an intergroup emotion? The distinction between chronic integral affect and an intergroup emotion is relatively clear. Chronic integral affect refers to an enduring affective reaction to an out-group (Bodenhausen, 1993), whereas an

intergroup emotion is a discrete emotional reaction to a particular intergroup situation or event (Smith & Mackie, in press). However, the distinction between episodic integral affect and an intergroup emotion is less apparent.

We argue that the primary distinction between two is that an intergroup emotion is attributed to a more specific cause at a specific time, a particular aspect of the intergroup dynamic with implications for the in-group. Though episodic integral affect is situationally determined, it is not necessarily attributed to a specific situation. Thus, integral affect is an emotional reaction to an out-group, which is either enduring (chronic) or transient (episodic), but may not always be consciously accessible.

Realistic versus symbolic threat. Though the findings suggest that symbolic and realistic threat may have unique emotional and behavioural consequences, there is likely considerable overlap in these two concepts. In actual examples of intergroup conflict, one may argue that these two types of threat are interchangeable, and that which type of threat articulated depends on strategic interests. However, I argue that the perception of symbolic threat and realistic threat are distinct phenomena, but with the potential to considerably influence each other.

Furthermore, I argue that neither of these threats is primary to the other. Future research would benefit from gaining a better understanding how the perceptions of these threats interact.

Causality. In light of the findings, emotion emerges as both an antecedent and consequence of intergroup threat perception. This dual treatment requires elaboration. In adopting appraisal theory of emotion, the original IET (Mackie et al., 2000; Smith, 1993, 1999) viewed intergroup emotions as a consequence of intergroup appraisal. In fact, the proposal that intergroup emotion mediates the relationship between intergroup appraisal and behavioural intentions, assumes appraisal theory's causal assumptions. This mediator function was

supported empirically in this study. However, the findings also show that the affect manipulations significantly influenced the appraisal of intergroup threat. How can this dual role of emotion be reconciled with the mediational assumption of IET?

Returning to Russell's (2003) framework, the distinction between *core affect* and an *emotional episode* may help navigate through this issue. By definition, core affect is a generalized feeling that is always present, whose cause is inaccessible. In describing the antecedent influence of affect, we argue that it is this unattributed affect that will influence intergroup appraisal. According to Schwarz and Clore (1983), for affect to influence social judgment, it must not yet be attributed elsewhere.

Conversely, a sharp fluctuation in core affect may be attributed to a particular situation, initiating an emotional episode. Smith and Mackie (in press) argue that intergroup emotions are emotional episodes, attributed to a particular aspect of an intergroup dynamic. Thus, the experience of an intergroup emotion begins once affect is attributed to the intergroup dynamic. Sometime following this attribution, behavioural intentions towards the attributed source of the emotion may be formed. By describing intergroup emotions as unfolding in this manner, the merger of Russell's (2003) framework and IET complies with the causal assumptions of mediation (Baron & Kenny, 1986). Therefore, the process of attribution may be central in accommodating affect's dual role as antecedent (unattributed affect) and consequence (attributed affect). However, while we consider this explanation to be theoretically coherent, it is speculative, without empirical basis. Neither the current study, nor previous IET research allow for definitive conclusions regarding causality; thus alternative causal explanations are possible. This is an important question which needs to be addressed in future research and theory.

Future research directions

An important peripheral aim of the study was to stimulate future research on intergroup threat and emotion. It is hoped that the influence of affect on intergroup threat perception will be further examined in subsequent studies. The following are suggestions for future research directions to both extend the current project and address its limitations.

Generalization to other intergroup contexts. While US/Canadian relations provided an interesting intergroup context, future studies should examine a variety of group dynamics. Although I anticipate that the general processes described here would be evident in other group contexts, it is possible that other intergroup relationships could yield some differences. For example, intergroup dynamics characterized by intense intergroup conflict may provoke more intense emotional reactions, but may be less susceptible to situational variations. In these cases, chronic integral affect may be so severe that fluctuations in episodic integral or incidental affect would have little effect. Conversely, to limit confounding factors, minimal intergroup dynamics created in a laboratory setting should also be examined. Furthermore, affect may also influence emotions towards the in-group, such as collective guilt (Doosje, Branscombe, Spears, & Manstead, 1998; Wohl & Branscombe, 2005).

Generalization to other manipulations. Future studies could also benefit from using different manipulations to provoke affect. In particular, the effects of specific emotions (e.g., fear, anger, sadness) on group threat perception and intergroup relations appear to be an appropriate extension to the current study. Specific emotions have been shown to differentially influence social judgment (Bodenhausen, 1993). Therefore, manipulations that target specific emotions, rather than negative or positive affect, may provide a more comprehensive picture of the affective influences on intergroup threat perception.

As well, since one's integral affect can never be fully isolated from incidental influences, it is important to understand how integral affect and incidental affect interact. In fact, the current project was designed to allow for this eventual examination (i.e., participants viewing one of the cover page manipulations before reading one of the articles). Rather than pitting the two types of affect against each other, considering models of potential interactions between incidental and integral affect may prove to be a significant endeavor.

Behavioural measures. It is hoped that behavioural measures will be adopted further in research on intergroup threat and emotion. Both IET and ITT have addressed behavioural outcomes conceptually, however empirical exploration of these consequences is lacking. While it is believed that the behavioural measure employed in this study does have some merit, it would be beneficial to examine numerous behavioural scenarios. It is possible that some intergroup behaviour is more prone to affective influence than others. That said, creating behavioural indicators that are relevant to intergroup relations, and not overly contrived, will require ingenuity.

Reversing affective influences. Lastly, potential methods of diminishing affective influences on intergroup threat perception represent an interesting area of future research. Based on previous findings (Schwarz & Clore, 1983) it is proposed that the influence of the affect manipulations on intergroup threat and emotion would be minimized if participants were explicitly directed to attribute their current affect to the affective stimulus. For example, using the current experimental design, participants could receive the following information between the presentation of the manipulation and the dependent measures: "Material presented by the media often provokes an emotional response that can influence opinions. Before answering the

following questions, please reflect on your current affective state and how the material just seen helped shape your mood.”

General implications

In general, the study highlights two key points: (1) the importance of affect in intergroup relations, and (2) the situational variability of intergroup appraisal. While there has been significant appreciation of the emotional aspects of intergroup relations and prejudice, we argue that the effects of emotion on intergroup relations are more pervasive than much of this research suggests. Not only is affect apparent in our reactions to other groups, which was further explored in this thesis, but it also influences how intergroup dynamics are perceived and may ultimately shape the nature of the relationship itself. Integrating Intergroup Emotions Theory (IET; Mackie et al., 2000; Smith, 1993, 1999), Integrated Threat Theory (ITT; Stephan & Stephan, 1996), and research examining affective influences on social judgment (e.g., Bodenhausen, 1993) facilitates a greater appreciation of the impact of affect.

Moreover, the findings illustrate the malleability of psychological reactions to an out-group. Specifically, the role of the media in provoking affect, and consequently shaping perception was demonstrated. Though we do not argue that the media is inherently manipulative in the regard, the competing objectives of informing and entertaining may have significant implications. Moreover, the evidence of incidental affect's influence suggests that any factor contributing to one's affective state may ultimately influence intergroup perception, from difficulties at work to a heat wave.

In more theoretical terms, the revised IET and ITT models can be placed within a broader trend towards more dynamic explanations of psychological phenomena. Though understanding the specifics of a given intergroup dynamic is important, to gain a true appreciation of the

relationship, it must be situated in a particular time and place. This contextualization must take place at a societal level as well as at the level of the individual. However, an appreciation of the dynamic aspects of social phenomena is not a theoretical issue alone. Research indicates that lay theories of human nature have significant effects on intergroup perception and behaviour.

Individuals that view social relations in a fixed manner, dependent on the actors traits (entity lay theories), tend to display greater stereotyping and discriminatory behaviour, than those who acknowledge the impact of the situation (incremental lay theories) (Levy, Plaks, Hong, Chiu, & Dweek, 2001). Consequently, the general public may benefit from better understanding the malleability of their intergroup perceptions and their susceptibility to situational factors, particularly their own affect.

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Appendix A

Negative Integral Affect Manipulation

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NEW YORK – The results of a national survey that reveal American perceptions of Canadians were released yesterday. The report has already caused quite a stir north of the border.



US/Canadian relations have received unprecedented media attention since Canada's decision not to support America's war in Iraq. In addition, softwood lumber, mad cow, missile defense, and a handful of high-profile name-calling incidents have resulted in increasingly cool relations between the two nations.

Has the rift between Ottawa and Washington trickled/filtered down to its citizens?

The results suggest a resounding 'yes'.

Many commonly held assumptions regarding Americans lack of knowledge about Canada were reinforced; however, the report suggests the development of more overt animosity directed towards Canadians.

As Canadian comic Rick Mercer has repeatedly demonstrated, Americans continue to know very little about their northern neighbor. Comical misperceptions about igloos and arctic temperatures are still very much prevalent, although not as widespread as many Canadians would believe.

However, the survey does illustrate some striking geographical, political, and historical ignorance. Only 2% of those surveyed could name the Canadian Prime Minister, while 10% could name more than two provinces.

One result that will likely spark some controversy was that over two thirds of Americans polled believed that Canada refused to send troops to Afghanistan. This result is particularly shocking considering the 'Friendly Fire' incident in which a US pilot dropped a bomb that killed four Canadian soldiers.

Probably the most contentious issue between the two nations concerns



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Canada's decision to opt out of the 'Coalition of the Willing' in Iraq. Washington and some American media outlets have voiced their opinion on the issue, but what does the average American think?

When asked about Canada's decision, a majority felt that the decision reflected cowardice. Some of the respondents expressed feelings of betrayal, whereas others expressed anger. Even some respondents who opposed the war, expressed disapproval of Canada's insubordination. Almost 30% of those polled went so far as to suggest that Canadians support Al Qaeda and their methods.

However, do these figures indicate the actual state of US/Canadian relations? Statements made when given the opportunity to elaborate on answers were particularly revealing.

One respondent provided evidence of explicit hostility by stating, "Canadians let every terrorist, criminal, and disease infested person from any country into theirs just to fill their barren, frigid landscape with a warm body."

Another response was equally as blunt, "Canadians just can't get over the fact America is better than them. Isn't it abouuuuuuuut time they did?"



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Appendix B

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NEW YORK – The results of a national survey that reveal American perceptions of Canadians were released yesterday. The report may put minds north of the border at ease.

US/Canadian relations have received unprecedented media attention since Canada's decision not to support America's war in Iraq. In addition, softwood lumber, mad cow, missile defense, and a handful of high-profile name-calling incidents have resulted in increasingly cool relations between the two nations.

Has the rift between Ottawa and Washington trickled/filtered down to its citizens? The results suggest 'no'

Many commonly held assumptions regarding Americans lack of knowledge about Canada were reinforced; however, the report suggests the development of newfound admiration toward Canadians.

As Canadian comic Rick Mercer has repeatedly demonstrated, Americans continue to know very little about their northern neighbor. Comical misperceptions about igloos and arctic temperatures are still very much prevalent, although not as widespread as many Canadians would believe.

Relative to previous surveys, the Americans polled actually fared reasonably well. A surprising 40% could name the Canadian Prime Minister, while 50% could name more than two provinces.

When asked about the military operation in Afghanistan following the 9/11 attacks, over 75% of those polled expressed gratitude for Canada's participation. Furthermore, the majority of respondents was aware of, and expressed regret for the "friendly fire" incident in which four Canadian soldiers died.

Probably the most contentious issue between the two nations concerns



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Canada's decision to opt out of the '*Coalition of the Willing*' in Iraq. Washington and some American media outlets have voiced their opinion on the issue, but what does the average American think?

Interestingly, the majority of respondents, even those who supported the war, did not express any hostility regarding the decision. While a small minority expressed disapproval, an overwhelming majority respected Canada's decision, many supporting Canada over their own government.

However, do these figures indicate the actual state of US/Canadian relations? Statements made when given the opportunity to elaborate on answers were particularly revealing.

One respondent added, "Sure we joke about the cold and their accents, but on many issues, it looks like they are light-years ahead of us."

As author Michael Adams claims, "For American liberals, Canada has gone from being irrelevant and cold to inspirational and cool."

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Today's Headlines

Earthquake Devastates Peru

LIMA - The worst earthquake to hit Latin America in over 80 years, pillaged Peru yesterday. Measuring 7.9 on the Richter Scale, the quake violently shook Lima and surrounding areas as residents were returning from work. Deaths are estimated in the thousands and damage in the hundred of millions.

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- » [Ford Canada announces lay-offs](#)
- » [Local man found guilty](#)

Headline Scan | Today's Columnists

NATIONAL

Gun Violence on the Raise

TORONTO - The Canadian Mounted Police released a report yesterday, indicating that death and injury from gun violence has doubled in the past five years.



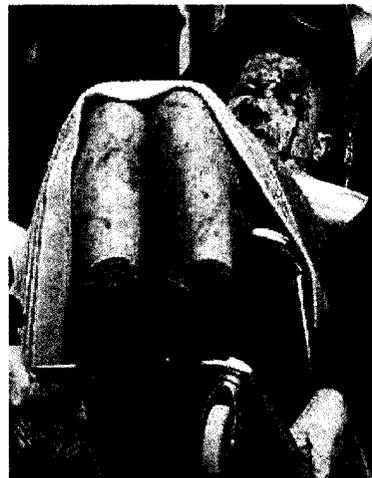
INTERNATIONAL

Mass Rape: A horrifying reality of modern warfare

GENEVA - With many politicians focusing on Star Wars, dirty bombs, biological agents, and other "21st Century weapons", a UN report identifies systematic mass rape as an increasingly prevalent weapon of war. This problem has reached endemic proportions in recent African conflicts.



REGIONAL



LATEST NEWS

Experts predict another SARS outbreak pending

An international group of researchers released a report this morning warning that another outbreak of SARS appears probable. Health Care officials are scrambling to assess their current ability to cope.



>>Full Story

National: Premiers announce summit scheduled for next month to discuss health care.

World: Insurgents carry out attacks against government buildings in Columbia.

Business: Toronto stocks maintain slight lead in directionless trading

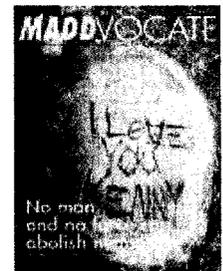
Sports: Speed Skater to be named to Canadian Sports Hall of Fame.

Entertainment: National Ballet announces next season's

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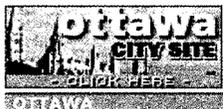
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Missing Girl: Police fear the worst

BROCKVILLE - Brockville police and residents continue a massive search for an eight year old girl. Alison Schumacher was last seen two days ago returning from a local park. Authorities found her sweater this morning in a wooded area 2 kilometers from her home.



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For more on these stories, read tomorrow's Citizen.

BUSINESS

Unemployment Rate soars

OTTAWA - Statistics Canada released a report indicating that the national unemployment rate is at a 15-year high.

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OTTAWA - The results of a national survey that reveal American opinions of Canadians were released yesterday.



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Kelly Egan
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Paul Williams
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Susan Riley
Life not getting any easier on Parliament Hill.



Tony Cote
Power steering hose could cause fire



Wayne Scanlan
North American soccer on the decline.



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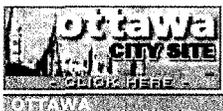
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Happy ending: Missing girl found

Parents and Community Relieved

BROCKVILLE - A three-day search has ended happily as community volunteers found the missing girl early this morning. The 6 year old had wandered off a path while playing in a wooded area near her home. Although tired and hungry, the girl was unharmed. She was returned home to her elated parents.



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- > [International aid helping Haiti rebuild](#)

Headline Scan | Today's Columnists

City

Star-studded festival coming to Ottawa

OTTAWA - A local production company announced yesterday, a 3-day festival to be held next July. Promoters are hailing the event as "the most impressive line-up to ever play in Canada", consisting of over 50 bands across numerous genres.



- > [OC Transpo to receive a boost](#)
- > [City council agrees on 'clean-up' plan](#)

SCIENCE & TECHNOLOGY

Panda Population on the Rise

SEOUL - Thanks to successful mating in captivity and new methods of re-introducing to the wild, the world's population has actually increased in the last five years.

LATEST NEWS

Medical Discovery may Protect Against Another SARS Outbreak

A multinational group of researchers have reported promising results of an experimental SARS vaccine. Although testing is still in its initial phases, the group suggests that there is reason for optimism in both preventing and treating the disease.

>>Full

Story

National: Premiers announce summit scheduled for next month to discuss health care and day care.

World: Peace Talks continue between government and insurgents in Columbia.

Business: Toronto stocks maintain slight lead in directionless trading

Sports: Speed Skater named to the Canadian Sports Hall of Fame.

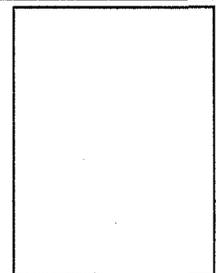
Entertainment: National Ballet announces next season's schedule.

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-  **Susan Riley**
Life on Parliament Hill getting a little easier
-  **Tony Cote**
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-  **Wayne Scanlan**
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Canadians through the eyes of Americans

OTTAWA - The results of a national survey that reveal American opinions of Canadians were released yesterday.



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Appendix E

Biographical information

Please answer the following questions about yourself:

- 1) Gender:
- 2) Age:
- 3) Religion:
- 4) Are you a Canadian citizen?
- 5) County of Origin
- 6) How many years have you lived in Canada?
- 7) How would you describe your current mood?

1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---

Very Negative *Very Positive*

1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---

Very Sleepy *Very Energetic*

Appendix F

In-group identification measure

Please indicate your agreement with the following statements on the scale provided:

1) I identify with Canadians.

1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---

Not at all *Very Much*

2) I see myself as a Canadian.

1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---

Not at all *Very Much*

3) I am glad to belong to my national group.

1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---

Not at all *Very Much*

4) I feel strong ties to other Canadians.

1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---

Not at all *Very Much*

Appendix G

Pre-manipulation attitudes

Please indicate on the scale provided how much you **like** the following groups:

1) British

1	2	3	4	5	6	7
<i>Not at all</i>			<i>Very Much</i>			

2) Iranians

1	2	3	4	5	6	7
<i>Not at all</i>			<i>Very Much</i>			

3) Americans

1	2	3	4	5	6	7
<i>Not at all</i>			<i>Very Much</i>			

4) Chinese

1	2	3	4	5	6	7
<i>Not at all</i>			<i>Very Much</i>			

5) Australians

1	2	3	4	5	6	7
<i>Not at all</i>			<i>Very Much</i>			

Please indicate on the scale provided how **similar** you are to the following groups:

1) British

1	2	3	4	5	6	7
<i>Not at all</i>			<i>Very Much</i>			

2) Iranians

1	2	3	4	5	6	7
<i>Not at all</i>			<i>Very Much</i>			

3) Americans

1	2	3	4	5	6	7
<i>Not at all</i>			<i>Very Much</i>			

4) Chinese

1	2	3	4	5	6	7
<i>Not at all</i>			<i>Very Much</i>			

5) Australians

1	2	3	4	5	6	7
<i>Not at all</i>			<i>Very Much</i>			

Please indicate on the scale provided how much you **respect** the following groups:

1) British

1	2	3	4	5	6	7
<i>Not at all</i>			<i>Very Much</i>			

2) Iranians

1	2	3	4	5	6	7
<i>Not at all</i>			<i>Very Much</i>			

3) Americans

1	2	3	4	5	6	7
<i>Not at all</i>			<i>Very Much</i>			

4) Chinese

1	2	3	4	5	6	7
<i>Not at all</i>			<i>Very Much</i>			

5) Australians

1	2	3	4	5	6	7
<i>Not at all</i>			<i>Very Much</i>			

Appendix H

Realistic threat measure

Use the scale printed below each item to indicate your agreement with each of the following statements concerning relations between Canadians and Americans:

- 1) Americans have too much influence on the Canadian economy.

A	B	C	D	E	F	G	H	I	J
---	---	---	---	---	---	---	---	---	---

Strongly Disagree *Strongly Agree*

- 2) Americans have too much control over Canadian political decisions.

A	B	C	D	E	F	G	H	I	J
---	---	---	---	---	---	---	---	---	---

Strongly Disagree *Strongly Agree*

- 3) American consumption threatens Canada's natural resources and environment.

A	B	C	D	E	F	G	H	I	J
---	---	---	---	---	---	---	---	---	---

Strongly Disagree *Strongly Agree*

- 4) American corporations jeopardize Canadian industries and take jobs away from Canadians.

A	B	C	D	E	F	G	H	I	J
---	---	---	---	---	---	---	---	---	---

Strongly Disagree *Strongly Agree*

- 5) Americans' foreign policy and international reputation endangers Canadians.

A	B	C	D	E	F	G	H	I	J
---	---	---	---	---	---	---	---	---	---

Strongly Disagree *Strongly Agree*

Appendix I

Symbolic threat measure

Use the scale printed below each item to indicate your agreement with each of the following statements concerning relations between Canadians and Americans:

- 1) Canadians and Americans have different values.

A	B	C	D	E	F	G	H	I	J
---	---	---	---	---	---	---	---	---	---

Strongly Disagree *Strongly Agree*

- 2) Americans think they have better values than Canadians.

A	B	C	D	E	F	G	H	I	J
---	---	---	---	---	---	---	---	---	---

Strongly Disagree *Strongly Agree*

- 3) Americans don't understand the way Canadians view the world.

A	B	C	D	E	F	G	H	I	J
---	---	---	---	---	---	---	---	---	---

Strongly Disagree *Strongly Agree*

- 4) Americans should not try to impose their values on Canadians.

A	B	C	D	E	F	G	H	I	J
---	---	---	---	---	---	---	---	---	---

Strongly Disagree *Strongly Agree*

- 5) Canadians do not get as much respect from Americans as they deserve.

A	B	C	D	E	F	G	H	I	J
---	---	---	---	---	---	---	---	---	---

Strongly Disagree *Strongly Agree*

- 6) America's cultural influence undermines our distinctive Canadian identity.

A	B	C	D	E	F	G	H	I	J
---	---	---	---	---	---	---	---	---	---

Strongly Disagree *Strongly Agree*

Appendix J

Emotions toward Americans

Please indicate the degree to which you feel the following emotions towards Americans:

- 1) Hostility

0	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---

No hostility at all *Extreme hostility*
- 2) Admiration

0	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---

No admiration at all *Extreme admiration*
- 3) Anxiety

0	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---

No anxiety at all *Extreme anxiety*
- 4) Acceptance

0	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---

No acceptance at all *Extreme acceptance*
- 5) Superiority

0	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---

No superiority at all *Extreme superiority*
- 6) Affection

0	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---

No affection at all *Extreme affection*
- 7) Disdain

0	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---

No disdain at all *Extreme disdain*
- 8) Hatred

0	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---

No hatred at all *Extreme hatred*
- 9) Sympathy

0	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---

No sympathy at all *Extreme sympathy*
- 10) Rejection

0	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---

No rejection at all *Extreme rejection*
- 11) Warmth

0	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---

No warmth at all *Extreme warmth*
- 12) Fear

0	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---

No fear at all *Extreme fear*
- 13) Irritation

0	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---

No irritation at all *Extreme irritation*
- 14) Resentment

0	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---

No resentment at all *Extreme resentment*
- 15) Worry

0	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---

No worry at all *Extreme worry*
- 16) Distrust

0	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---

No distrust at all *Extreme distrust*
- 17) Contempt

0	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---

No contempt at all *Extreme contempt*
- 18) Anger

0	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---

No anger at all *Extreme anger*

Appendix K

Affect Survey

Please indicate the degree to which the following terms describe how you feel *at this moment*:

1) Alert	0	1	2	3	4	5	6	7	8	9	<i>Not at all</i> <i>Extremely</i>
2) Depressed	0	1	2	3	4	5	6	7	8	9	<i>Not at all</i> <i>Extremely</i>
3) Tense	0	1	2	3	4	5	6	7	8	9	<i>Not at all</i> <i>Extremely</i>
4) Serene	0	1	2	3	4	5	6	7	8	9	<i>Not at all</i> <i>Extremely</i>
5) Happy	0	1	2	3	4	5	6	7	8	9	<i>Not at all</i> <i>Extremely</i>
6) Angry	0	1	2	3	4	5	6	7	8	9	<i>Not at all</i> <i>Extremely</i>
7) Upset	0	1	2	3	4	5	6	7	8	9	<i>Not at all</i> <i>Extremely</i>
8) Fatigued	0	1	2	3	4	5	6	7	8	9	<i>Not at all</i> <i>Extremely</i>
9) Excited	0	1	2	3	4	5	6	7	8	9	<i>Not at all</i> <i>Extremely</i>
10) Nervous	0	1	2	3	4	5	6	7	8	9	<i>Not at all</i> <i>Extremely</i>
11) Elated	0	1	2	3	4	5	6	7	8	9	<i>Not at all</i> <i>Extremely</i>
12) Irritated	0	1	2	3	4	5	6	7	8	9	<i>Not at all</i> <i>Extremely</i>
13) Sad	0	1	2	3	4	5	6	7	8	9	<i>Not at all</i> <i>Extremely</i>
14) Afraid	0	1	2	3	4	5	6	7	8	9	<i>Not at all</i> <i>Extremely</i>
15) Contented	0	1	2	3	4	5	6	7	8	9	<i>Not at all</i> <i>Extremely</i>
16) Relaxed	0	1	2	3	4	5	6	7	8	9	<i>Not at all</i> <i>Extremely</i>
17) Lethargic	0	1	2	3	4	5	6	7	8	9	<i>Not at all</i> <i>Extremely</i>
18) Calm	0	1	2	3	4	5	6	7	8	9	<i>Not at all</i> <i>Extremely</i>

Appendix L

Behavioural inclinations towards Americans

Please indicate on the scale below the extent that Americans make you want to:

1) Confront them

1	2	3	4	5	6	7
<i>Not at all</i>			<i>Very Much</i>			

2) Oppose them

1	2	3	4	5	6	7
<i>Not at all</i>			<i>Very Much</i>			

3) Insult them

1	2	3	4	5	6	7
<i>Not at all</i>			<i>Very Much</i>			

4) Avoid them

1	2	3	4	5	6	7
<i>Not at all</i>			<i>Very Much</i>			

5) Attack them

1	2	3	4	5	6	7
<i>Not at all</i>			<i>Very Much</i>			

6) Seek contact with them

1	2	3	4	5	6	7
<i>Not at all</i>			<i>Very Much</i>			

7) Cooperate with them

1	2	3	4	5	6	7
<i>Not at all</i>			<i>Very Much</i>			

8) Argue with them

1	2	3	4	5	6	7
<i>Not at all</i>			<i>Very Much</i>			

9) Have nothing to do with them

1	2	3	4	5	6	7
<i>Not at all</i>			<i>Very Much</i>			

10) Keep them at a distance

1	2	3	4	5	6	7
<i>Not at all</i>			<i>Very Much</i>			

Appendix M

Interactions Between Nations

At this time, I would like to inform you that some of the sections of this study are actually a part of an international study, being conducted in 6 nations (the United Kingdom, Iran, the United States, China, Australia and Canada). Participants in other countries are being asked their opinions of other nations. However, some of the sections were tailored to reflect regional concerns.

This final section of the experiment involves interaction with participants from the other studies. This interaction is not immediate (some of the participants have already completed the study, while others are yet to participate). Once the study is completed, you will be randomly assigned to other participants from all 6 countries.

The majority of interactions between nations involve some form of economic trade. These financial interactions can be used to nurture alliances through agreements; or to punish foes through embargoes and sanctions. Alternatively, other countries choose to isolate themselves economically from other states.

It is important that you read the following instructions carefully! The following scenarios require you to decide whether you wish to enter into an agreement with the other participants by contributing your tokens to a common pool or to keep the tokens for yourself. For each agreement you will be given 10 tokens. You have the options of: 1) contributing all your tokens to the pool, 2) contributing a portion of your tokens and keeping the remainder for yourself, or 3) keep all of the tokens.

You have the opportunity to make \$5 to \$20 depending on your total token tally at the end of the game. Since the results of the games are not calculated immediately, you will receive an email in a month's time to inform you how to receive your payout.

Three-Participant Agreements

The first type of agreement involves 3 participants, including you. You may contribute your tokens to a common pool, which will be multiplied by 5 and divided evenly among the participants. However, a total of 15 tokens must be contributed in order for the agreement to take effect. If less than 15 tokens are contributed by the three participants, any contributions made will be lost. You are given 10 tokens for each agreement.

You have 5 choices: 1) contribute all 10 tokens to the pool, 2) contribute 7.5 and keep 2.5, 3) contribute 5 and keep 5, 4) contribute 2.5 and keep 7.5, or 5) keep all 10 tokens. The following diagram illustrates your options, and potential payouts:

Your Payout		The Other Participants' Contributions								
		0	2.5	5.0	7.5	10.0	12.5	15.0	17.5	20.0
Your Contribution to the Pool	0	10.0	10.0	10.0	10.0	10.0	10.0	35.0	39.2	43.3
	2.5	7.5	7.5	7.5	7.5	7.5	32.5	36.7	40.8	45.0
	5.0	5.0	5.0	5.0	5.0	30.0	34.2	38.3	42.5	46.7
	7.5	2.5	2.5	2.5	27.5	31.7	35.8	40.0	44.2	48.3
	10	0.0	0.0	25.0	29.2	33.3	37.5	41.7	45.8	50.0

Now please indicate how much you would contribute in the following five agreements:

Agreement A) With an Australian and another Canadian participant

Agreement B) With an American and an Iranian participant

Agreement C) With a British and a Chinese participant

Agreement D) With another Canadian and a Chinese participant

Agreement E) With an Australian and an Iranian participant

Agreement F) With a British and an American participant

Agreements with Exclusion

This game is similar to the previous game, with the exception that you can now choose to exclude one of the participants from receiving their share of the pool. If you succeed in excluding someone, the remaining participants' (including your own) payoff increases. Each participant can vote one participant to be excluded. The participant who receives the most votes will be excluded from the benefits of the pool, including their own if they contributed.

If you choose not to exclude anyone, you will be safe from exclusion yourself. However, by voting to exclude another participant, you are also vulnerable to being excluded. In the case of

a tie, each of the excluded participants will receive half of their pool benefits, and the non-excluded participant will receive the remainder.

The following diagrams illustrate your options, and potential payouts without and with an excluded participant:

Your Payout		The Other Participants' Contributions								
		0	2.5	5.0	7.5	10.0	12.5	15.0	17.5	20.0
Your Contribution to the Pool	0	10.0	10.0	10.0	10.0	10.0	10.0	35.0	39.2	43.3
	2.5	7.5	7.5	7.5	7.5	7.5	32.5	36.7	40.8	45.0
	5.0	5.0	5.0	5.0	5.0	30.0	34.2	38.3	42.5	46.7
	7.5	2.5	2.5	2.5	27.5	31.7	35.8	40.0	44.2	48.3
	10	0.0	0.0	25.0	29.2	33.3	37.5	41.7	45.8	50.0
Your Payout With 1 Participant Excluded		The Other Participants' Contributions								
		0	2.5	5.0	7.5	10.0	12.5	15.0	17.5	20.0
Your Contribution to the Pool	0	10.0	10.0	10.0	10.0	10.0	10.0	47.5	53.8	60.0
	2.5	7.5	7.5	7.5	7.5	7.5	45.0	51.3	57.5	63.8
	5.0	5.0	5.0	5.0	5.0	42.5	48.8	55.0	61.3	67.5
	7.5	2.5	2.5	2.5	40.0	46.3	52.5	58.8	65.0	71.3
	10	0.0	0.0	37.5	43.8	50.0	56.3	62.5	68.8	75.0

Please indicate how much you would contribute and vote in the following five agreements:

- Agreement A) With an American (A) and an Australian (B) participant
- Agreement B) With a British (A) and an Australian (B) participant
- Agreement C) With an Iranian (A) and a Chinese (B) participant
- Agreement D) With a Chinese (A) and an American (B) participant
- Agreement E) With another Canadian (A) and an Iranian (B) participant
- Agreement F) With a British (A) and another Canadian (B) participant

Appendix N

Frequency table of demographic data (N = 100)

Questions	Responses	N
Gender	Female	65
	Male	35
Age	17 years old	2
	18 years old	47
	19 years old	22
	20 years old	13
	21 years old	10
	22 years old	2
	26 years old	2
	28 years old	1
	36 years old	1
Religion	Catholic	41
	Protestant	15
	Muslim	2
	Hindu	1
	Sikh	1
	Jewish	3
	Atheist	9
	Other	28
Are you a Canadian citizen?	Yes	100
	No	0
County of Origin	Canada	82
	Other	18

Appendix O

Principal components analyses

Table O1

Intergroup emotion component matrix

	Component 1	Component 2	Component 3
Disdain	.803	-.161	.102
Hatred	.796	-.340	.114
Hostility	.785	-.253	.127
Contempt	.769	.083	.149
Rejection	.724	-.194	.230
Anger	.720	-.233	.393
Resentment	.521	-.333	.477
Warmth	-.074	.867	-.034
Affection	-.157	.857	.117
Admiration	-.162	.743	-.032
Acceptance	-.437	.696	-.014
Worry	.066	-.098	.852
Fear	.239	.104	.834
Anxiety	.243	.116	.763

Note: Varimax rotation with Kaiser Normalization

Table O2

Action tendencies component matrix

	Component 1	Component 2
Have nothing to do with them	.826	.276
Seek contact with them	-.792	.314
Keep them at a distance	.767	.324
Avoid them	.672	.298
Cooperate with them	-.621	-.180
Confront them	.004	.816
Argue with them	.128	.791
Oppose them	.361	.682
Attack them	.107	.620
Insult them	.358	.613

Note: Varimax rotation with Kaiser Normalization

Appendix P

Between-condition differences - Planned contrasts

	Integral Affect Manipulation			Incidental Affect Manipulation		
	Condition	Contrast	Sig.	Condition	Contrast	Sig.
Unpleasant/ activated affect ₁	N vs. C	.705	.082	N vs. C	.921	.030
	P vs. N	-.978	.017	P vs. N	-1.624	.000
	P vs. C	-.273	.496	P vs. C	-.703	.081
Pleasant/ activated affect ₁	N vs. C	.018	.959	N vs. C	-.618	.077
	P vs. N	.270	.451	P vs. N	1.032	.004
	P vs. C	.288	.415	P vs. C	.414	.213
Realistic threat	N vs. P/C	.727	.098	N vs. P/C	1.438	.004
	P vs. C	.257	.615	P vs. C	-.305	.564
Symbolic threat	N vs. P/C	1.129	.002	N vs. P/C	.804	.049
	P vs. C	.421	.316	P vs. C	-.040	.927
Fear	N vs. P/C	.251	.695	N vs. P/C	1.015	.120
	P vs. C	.118	.876	P vs. C	-.922	.200
Positive emotions	N vs. P/C	-.215	.616	N vs. P/C	-.838	.032
	P vs. C	.013	.979	P vs. C	.142	.738
Anger	N vs. P/C	1.180	.028	N vs. P/C	.850	.031
	P vs. C	.298	.631	P vs. C	-.194	.653
Move-away	N vs. P/C	.253	.445	N vs. P/C	.428	.259
	P vs. C	-.261	.503	P vs. C	-.657	.119
Move-against	N vs. P/C	.504	.143	N vs. P/C	.557	.129
	P vs. C	.020	.959	P vs. C	-.175	.663
Contributions with in-group ₂	N vs. P/C	-.072	.851	N vs. P/C	-.033	.923
	P vs. C	.029	.944	P vs. C	-.047	.900
Contributions with out-group ₂	N vs. P/C	-.304	.482	N vs. P/C	.184	.665
	P vs. C	-.083	.861	P vs. C	.494	.293

Conditions: N = Negative, P = Positive, C = Control

Note: All analyses contained pre-manipulation attitudes towards Americans, in-group identification, and experimental condition, except:

1. Contained pre-manipulation mood variables (both valence and activation)
2. Contained pre-manipulation attitudes towards Americans, in-group identification, experimental condition, and contributions to other agreements

Appendix Q

Mediational Analyses

Table Q1

Effects of threat appraisal, in-group identification, and intergroup emotions on action tendencies

	Outcome Variables			
	Move-away		Move-against	
	β	(<i>p</i>)	β	(<i>p</i>)
Condition (1)	.01	.914	-.06	.535
Condition (2)	-.03	.721	-.05	.577
Condition (3)	-.01	.910	.04	.704
Condition (4)	-.07	.452	.00	.988
Pre-man. Attitudes	-.12	.280	-.10	.349
In-group Identification	.12	.150	.03	.705
Realistic threat	-.09	.355	.10	.293
Symbolic threat	.15	.167	.11	.312
Anger	.21	.121	.57	.000
Positive emotions	-.46	.000	-.08	.519
Fear	.17	.047	.02	.773
Move-against	-.09	.396	-	
Move-away	-		-.09	.396

Note: Betas displayed are standardized. Experimental conditions: (1) negative integral affect, (2) positive integral affect, (3) negative incidental affect, (4) positive incidental affect, (5) control.

Table Q2

Effects of threat appraisal, in-group identification, and intergroup emotions on intergroup behaviour

	Outcome Variables					
	Contributions with in-group		Contributions with out-group		Votes for out-group exclusion	
	β	(<i>p</i>)	β	(<i>p</i>)	β	(<i>p</i>)
Condition (1)	-.01	(.917)	-.11	(.231)	.08	(.517)
Condition (2)	.02	(.752)	.00	(.964)	.02	(.879)
Condition (3)	-.05	(.493)	.02	(.812)	-.13	(.280)
Condition (4)	.01	(.927)	.12	(.178)	.03	(.776)
Pre-man. Attitudes	.01	(.874)	.07	(.467)	.14	(.321)
In-group Identification	.13	(.039)	-.04	(.550)	-.20	(.056)
Realistic threat	.09	(.271)	.23	(.013)	-.18	(.180)
Symbolic threat	.06	(.467)	-.22	(.026)	.23	(.114)
Fear	-.03	(.665)	-.12	(.148)	-.07	(.525)
Positive emotions	-.04	(.662)	.16	(.114)	-.40	(.006)
Anger	-.14	(.145)	.21	(.049)	.23	(.136)
Contributions w Other	.75	(.000)	.68	(.000)	-	
Contributions w US	.12	(.225)	-		-	
Contributions w Can	-		.15	(.225)	-	
Ex total	-		-		.13	(.179)

Note: Betas displayed are standardized. Experimental conditions: (1) negative integral affect, (2) positive integral affect, (3) negative incidental affect, (4) positive incidental affect, (5) control.

Appendix R

Pearson Correlations Between Variables

		Ident.	Realistic	Symbolic	Fear	Positive	Anger	Away	Against	Contribution (in-group)	Contribution (out-group)	Exclusion
In-group identification	<i>r</i>	-										
	<i>p</i>	.										
Realistic Threat	<i>r</i>	.190	-									
	<i>p</i>	.059	.									
Symbolic Threat	<i>r</i>	.149	.633	-								
	<i>p</i>	.138	.000	.								
Fear	<i>r</i>	-.054	.248	.272	-							
	<i>p</i>	.592	.013	.006	.							
Positive Emotions	<i>r</i>	-.186	-.490	-.464	-.028	-						
	<i>p</i>	.064	.000	.000	.781	.						
Anger	<i>r</i>	.162	.452	.635	.458	-.463	-					
	<i>p</i>	.109	.000	.000	.000	.000	.					
Move-away	<i>r</i>	.229	.383	.499	.279	-.635	.573	-				
	<i>p</i>	.022	.000	.000	.005	.000	.000	.				
Move-against	<i>r</i>	.132	.479	.560	.348	-.471	.737	.446	-			
	<i>p</i>	.192	.000	.000	.000	.000	.000	.000	.			
Contributions to agreement with in-group	<i>r</i>	.198	.179	.107	.033	-.247	.081	.154	.115	-		
	<i>p</i>	.051	.078	.295	.749	.014	.428	.130	.259	.		
Contributions to agreements with out-group	<i>r</i>	.062	.125	-.040	.005	-.117	.103	.017	.035	.688	-	
	<i>p</i>	.539	.219	.692	.962	.251	.311	.865	.733	.000	.	
Exclusion votes for American participants	<i>r</i>	-.067	.174	.361	.030	-.389	.340	.252	.293	.091	-.090	-
	<i>p</i>	.509	.083	.000	.769	.000	.001	.012	.003	.374	.377	.

Footnotes

¹ The study is actually two studies run concurrently with a common control group. Study 1 examined the influence of integral affect on intergroup threat perception, emotion, and behaviour, while Study 2 assessed the impact of incidental affect. However, these studies were combined to obtain a larger sample to assess the structure of intergroup emotions and action tendencies, and relations among variables.

² It should be noted that opinions vary regarding required sample sizes for factor analyses. The assumption that 5 participants are required for each item examined was employed here (Gorsuch, 1983; Hatcher, 1994). However, others have argued for a 10:1 ratio, which suggests for the two principal components performed, our sample size was insufficient. In general, larger samples are considered by some to be desirable (Osborne & Costello, 2004), though practical considerations (financial expense) were taken into account. Despite this limitation, the scales that emerged from these analyses showed acceptable levels of reliability (Cronbach's alphas) and were consistent with previous findings (Dijker, 1987; Mackie et al., 2000).

³ Four of the original 18 emotion items were discarded. A principal components analysis on the original 18 emotion items also yielded a three-factor solution, accounting for 63.79% of the variance. The items 'irritation', 'distrust', and 'superiority' did not load strongly on any of the factors (< .50). Furthermore, when 'sympathy' was removed from the positive emotion scale, the Cronbach's alpha increased.

⁴ Three of the core affect items were flagged during testing because a few participants expressed confusion of their meaning. When 'Elated', 'Lethargic', and 'Serene' were introduced into the four scales, their Cronbach's alphas were substantially reduced.

Table 1

Core affect scale items, means, standard deviations, and internal consistencies

Scale	Alpha	Mean	SD	Items	
Pleasant-unpleasant	.84	6.47	1.42	Happy Contented Excited Relaxed	Sad* Upset* Depressed* Irritated*
Activated-deactivated	.11	3.87	.82	Alert Tense Excited Irritated	Fatigued* Relaxed* Depressed* Calm*
Unpleasant/activated-pleasant/deactivated	.82	2.19	1.55	Tense Irritated Upset	Calm* Relaxed* Contented*
Pleasant/activated-unpleasant/deactivated	.71	6.07	1.37	Alert Happy Excited	Sad* Depressed* Fatigued*

Note: *Reverse scored

Table 2

Means and standard deviations for reported core affect by condition

Core Affect	Affect Conditions				
	Integral Affect		Incidental Affect		Control (n = 20)
	Negative (n = 20)	Positive (n = 20)	Negative (n = 20)	Positive (n = 20)	
Unpleasant/Activated					
M	2.86	1.78	2.84	1.38	2.10
SD	1.83	1.04	1.67	1.28	1.39
Pleasant/Activated					
M	6.09	6.42	5.28	6.48	6.10
SD	1.46	1.30	1.35	1.30	1.24

Table 3

Means and standard deviations for intergroup threat appraisal by condition

	Affect Conditions				
	Integral Affect		Incidental Affect		Control (n = 20)
	Negative (n = 20)	Positive (n = 20)	Negative (n = 20)	Positive (n = 20)	
Intergroup threat					
Realistic threat					
M	7.40	6.59	7.62	6.25	6.48
SD	1.79	1.87	1.61	1.76	1.67
Symbolic threat					
M	8.24	7.21	7.63	6.93	6.86
SD	1.32	1.40	1.24	1.82	1.50

Table 4

Means and standard deviations for emotions toward Americans by condition

Emotions	Affect Conditions				
	Integral Affect		Incidental Affect		Control (n = 20)
	Negative (n = 20)	Positive (n = 20)	Negative (n = 20)	Positive (n = 20)	
Anger					
M	4.24	3.12	3.75	2.77	2.84
SD	2.73	2.20	1.62	1.78	1.93
Fear					
M	4.00	3.85	4.42	2.77	3.65
SD	2.25	2.47	2.45	1.99	2.29
Positive emotions					
M	4.06	4.40	3.58	4.31	4.38
SD	2.33	1.86	1.60	1.85	2.13

Table 5

Means and standard deviations for action tendencies toward Americans by condition

Action tendency	Affect Conditions				
	Integral Affect		Incidental Affect		Control (n = 20)
	Negative (n = 20)	Positive (n = 20)	Negative (n = 20)	Positive (n = 20)	
Move-away					
M	4.21	3.67	4.12	3.51	4.02
SD	1.75	1.24	1.78	1.51	1.52
Move-against					
M	3.73	3.16	3.75	3.09	3.16
SD	1.62	1.35	1.34	1.64	1.32

Table 6

Effects of threat appraisal and in-group identification on intergroup emotions

Dependent Variables	Anger		Outcome Variables Positive Emotions		Fear	
	β	(<i>p</i>)	β	(<i>p</i>)	β	(<i>p</i>)
Condition (1)	.12	(.160)	.06	(.495)	-.10	(.399)
Condition (2)	-.04	(.608)	.05	(.582)	.03	(.770)
Condition (3)	.04	(.643)	-.14	(.120)	.11	(.344)
Condition (4)	-.05	(.569)	.07	(.466)	-.16	(.178)
Pre-man. Attitudes	-.38	(.000)	.54	(.000)	.04	(.775)
In-group Identification	.14	(.064)	-.17	(.026)	-.07	(.513)
Realistic threat	-.04	(.621)	-.20	(.036)	.14	(.245)
Symbolic threat	.36	(.000)	-.13	(.216)	.00	(.995)
Fear	.31	(.000)	.18	(.027)	-	
Positive Emotions	-.03	(.764)	-		.30	(.027)
Anger	-		-.03	(.764)	.57	(.000)

Note: Betas displayed are standardized. Experimental conditions: (1) negative integral affect, (2) positive integral affect, (3) negative incidental affect, (4) positive incidental affect, (5) control.

Table 7

Effects of threat appraisal and in-group identification on intergroup action tendencies

Dependent Variables	Outcome Variables			
	Move-against		Move-away	
	β	(<i>p</i>)	β	(<i>p</i>)
Condition (1)	.02	(.877)	.00	(.971)
Condition (2)	-.06	(.548)	-.05	(.609)
Condition (3)	.09	(.409)	.07	(.490)
Condition (4)	-.05	(.656)	-.14	(.175)
Pre-man. Attitudes	-.33	(.001)	-.42	(.000)
In-group Identification	.08	(.398)	.21	(.016)
Realistic threat	.12	(.250)	-.01	(.896)
Symbolic threat	.31	(.008)	.28	(.015)
Move-away	.04	(.694)	-	
Move-against	-		.04	(.694)

Note: Betas displayed are standardized. Experimental conditions: (1) negative integral affect, (2) positive integral affect, (3) negative incidental affect, (4) positive incidental affect, (5) control.

Table 8

Effects of threat appraisal and in-group identification on intergroup behaviour

	Outcome Variables					
	Contributions with in-group		Contributions with out-group		Votes for out-group exclusion	
	β	(<i>p</i>)	β	(<i>p</i>)	β	(<i>p</i>)
Condition (1)	-.02	(.777)	-.08	(.389)	.09	(.481)
Condition (2)	.02	(.741)	-.01	(.928)	-.01	(.917)
Condition (3)	-.06	(.402)	.01	(.940)	-.07	(.558)
Condition (4)	.03	(.675)	.12	(.171)	.02	(.897)
Pre-man. Attitudes	.05	(.425)	.08	(.294)	-.17	(.106)
In-group Identification	.12	(.047)	-.03	(.640)	-.10	(.329)
Realistic threat	.10	(.182)	.18	(.041)	-.10	(.425)
Symbolic threat	.00	(.973)	-.17	(.052)	.35	(.011)
Contributions w Other	.77	(.000)	.69	(.000)	-	
Contributions w US	.09	(.337)	-		-	
Contributions w Can	-		.12	(.337)	-	
Non-US exclusions	-		-		.12	(.214)

Note: Betas displayed are standardized. Experimental conditions: (1) negative integral affect, (2) positive integral affect, (3) negative incidental affect, (4) positive incidental affect, (5) control.

Figure Captions

Figure 1. An overview of the experimental design.

Figure 2. The structure of core affect.

Figure 3. Contributions to agreements with another Canadian (with CDN), with an American (with USA), and with neither another Canadian nor an American participant (with Other) by integral affect condition.

Figure 4. Contributions to agreements with another Canadian (with CDN), with an American (with USA), and with neither another Canadian nor an American participant (with Other) by incidental affect condition.

Pre-Manipulation Measures

Biographic questionnaire

In-group identification

Pre-manipulation Attitudes

Manipulations

Negative Article
(Negative Integral Affect)

Positive Article
(Positive Integral Affect)

Control Group

Negative Front-page
(Negative Incidental Affect)

Positive Front-page
(Positive Incidental Affect)

Post-Manipulation Measures

Intergroup Threat

Intergroup Emotions

Core Affect
(manipulation check)

Action Tendencies

Intergroup Behaviour

