Bush v. Bin Laden: Effect of State Emotion on Perceived Threat Is Mediated by Emotion Towards the Threat Agent

Bush vs. Ben Laden : l'effet de l'émotion état sur la menace perçue est médiatisées par l'émotion vis-à-vis de l'agent menaçant

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Abstract

The authors conducted an experiment to examine the effect of specific (fear and anger) and global emotional states on perceptions of threat posed by either George W. Bush or Osama Bin Laden. The findings supported a mediator model in which negative emotion towards the threat target mediated the effect of global negative emotion on perceived threat. The authors discuss implications of the findings for theories that postulate an effect of emotion on risk perceptions and for understanding threat perception in the terrorism context.

Résumé

Les auteurs ont mené une étude expérimentale afin d'examiner les effets d'états émotionnels spécifiques (peur et colère) et globaux sur les perceptions de menaces suscitées soit par George W. Bush, soit par Osama Ben Laden. Les résultats soutiennent un modèle de médiation dans lequel une émotion négative éprouvée envers une cible menaçante médiatise l'effet d'une émotion globale négative sur la menace perçue. Les auteurs discutent des implications des résultats pour les théories qui postulent un effet de l'émotion sur la perception du risque et pour comprendre la perception de menace dans le contexte du terrorisme.

Key-words
Threat perception; risk perception; emotion; terrorism

Mots-clés
Perception de menace, perception de risqué, émotion, terrorisme

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It has long been known that perceptions of risk or threat among the general public are influenced by a multidimensional array of psychosocial factors that include emotions such as dread and outrage (e.g., Fischhoff, Slovic, Lichtenstein, Read, & Combs, 1978; Sandman, 1989; Slovic, 1987). Leaders of terrorist organizations, such as al Qaeda's Osama Bin Laden (OBL), attempt to use these psychological bases of risk perception to their strategic advantage, seeking to prompt fear and a sense of vulnerability that is disproportionate to the statistical risk actually posed, yet highly representative of the iconic images of terror that acts of terrorism so easily evoke (Slovic, 2004). Some have also suggested that leaders of states threatened by terrorism, such as former U.S. President George W. Bush (GWB), have used those same emotions to bolster political support for hawkish countermeasures by presenting the threats in ways that are, as Mueller (2006) puts it, "overblown." In this paper, we examined how Canadian participants' emotions predicted their threat perceptions regarding two key actors in the global war on terrorism – OBL and GWB. Our inquiry was guided by recent theoretical developments in the psychology of emotion, which lend themselves to competing hypotheses regarding the effect of emotion on threat perception, and which we summarize next.

Several accounts posit an effect of emotion on risk perception. However, an important distinction between them is whether they are valence-based or emotion-specific. Valence-based accounts propose that how good or bad a person feels at the time they are evaluating risks will be an important determinant of their risk perceptions (e.g., Clore & Huntsinger, 2007; Loewenstein, Weber, Hsee, & Welch, 2001; Schwarz & Clore, 1996; Slovic, Finucane, Peters, & MacGregor, 2002). A classic demonstration of this sort of effect was provided by Johnson and Tversky (1983), who showed that participants who were experimentally induced to feel positive were more optimistic about risks than their counterparts who were induced to feel negative, even when the risks assessed were semantically unrelated to the mood stimuli. In the terrorism domain, Shiloh, Güvenç, and Önkal (2007) found that affect negativity was directly related to perceived costs of terrorism and inversely related to perceived control in Turkish

and Israeli samples. As well, negative affect was directly related to perceived vulnerability in the Turkish sample.

Whereas affective valence theories stress the effect of the goodness or badness of one's affective state on judgment, emotion-specific theories posit that different emotions that share the same valence may nevertheless lead to different, even opposing, effects on judgment. The basis for this claim is that different emotions are not only the consequence of distinct cognitive (Smith & Ellsworth, 1985) and action (Frijda, Kuipers, & ter Schure, 1989) appraisals, but that they also give rise to distinct appraisals that form an important part of the basis for emotion's influence on judgment (Bodenhausen, Sheppard, & Kramer, 1994; DeSteno, Petty, Wegener, & Rucker, 2000; Keltner, Ellsworth, & Edwards, 1993; Lerner & Keltner, 2000; Mandel, 2003; Tiedens & Linton, 2001). According to this view, the appraisal tendencies generated by specific emotions can persist, spilling over to influence judgments even when the target of judgment differs from the emotion-eliciting stimulus (Gasper & Clore, 1998; Goldberg, Lerner, & Tetlock, 1999).

In terms of risk perception, two emotions that have received research attention are fear and anger. Although both are negative emotions, fear arises from and gives rise to appraisals of uncertainty and situational control, whereas anger is associated with appraisals of certainty and personal control (Lerner & Keltner, 2001; Smith & Ellsworth, 1985). Given that perceived risk is inversely related to perceived certainty and personal control (McDaniels, Axelrod, Cavanagh, & Slovic, 1997; Slovic, 1987), there is reason, as well as mounting evidence, to support the hypothesis that perceived risk might be amplified by feelings of fear and attenuated by feelings of anger (Lerner & Keltner, 2000; 2001; Lerner & Tiedens, 2006). Notably, Lerner, Gonzalez, Small, and Fischhoff (2003) examined the effects of experimentally induced fear and anger on terrorism risk perceptions in a representative U.S. sample shortly after 9/11. Compared to anger-induced participants, fear-induced participants perceived greater risk of terrorism-related threats to the U.S., themselves, and average others. In a sub-sample that was examined a year later, a new induction of fear and anger replicated these results (Fischhoff, Gonzalez, Lerner, & Small, 2005).

The Present Research

We sought to extend the investigation of the effect of emotion on threat-related judgments in the terrorism domain in several important respects. Like Lerner et al. (2003), we experimentally induced fear and anger in different groups of participants. However, as some researchers have recently called for (e.g., Small, Lerner, & Fischhoff, 2006), we added a neutral-emotion baseline condition, which permitted us to gauge whether the effects of fear and anger on perceived threat were symmetric relative to a neutral baseline. This assessment is important in light of recent findings by Bruine de Bruin, Florig, Fischhoff, Downs, and Stone (2006) showing that whereas self-reported fear (controlling for anger and baseline fear) associated with terrorism and natural disaster scenarios was directly related to perceived mortality risk, self-reported anger (controlling for fear and baseline anger) was unrelated to perceived risk. This suggests that earlier findings by Lerner et al. (2003) and Fischhoff et al. (2005) may have been due mainly to the risk-enhancing effect of fear rather than the risk-attenuating effects of anger.

Second, by examining participants' current emotional state across a broad range of emotions, we were able to test whether threat perceptions were predicted by general composite measures of negative and positive emotion. As noted earlier, affective valence accounts posit that perceived risk tends to increase as one moves toward the negative pole of the good-bad continuum. Such proposals suggest a single, bipolar, affective dimension. An alternative valence-based perspective, however, is that there are two, unipolar, "positivity" and "negativity" dimensions that might differentially impact perceived risk. We hypothesized that the negative dimension would be a more influential predictor of perceived threat for four reasons. First, if current emotion is used as a heuristic for judging risk, it seems plausible that negative emotion would be more influential than positive emotion due to its greater representativeness to the target of judgment – namely, events that, by definition, are likely to induce negative emotion. Second, it has long been known that risk perception is influenced by negative emotions, such as feelings of dread (Slovic, 1987). Third, because people tend to be loss averse (Kahneman &

Tversky, 1979), they may be more closely attuned to the informational value of negative emotion. Finally, primary negative emotions, such as fear, are given processing priority in the human brain (Le Doux, 1998), perhaps due to the evolutionary significance of attending to their sources.

A third objective of ours was to examine whether any significant effect of emotion (valence-based or emotion-specific) on perceived threat might be mediated by participants' emotional responses toward the source of threat itself. In the present research, we manipulated whether the evaluated source of threat was OBL or GWB, two iconic figures in the terrorism domain at the time this study was being conducted in 2006. Indeed, around the same time as our study was conducted, an EKOS poll (Harper, 2006) found that Canadians regarded GWB as the third greatest danger to the world after OBL and North Korean leader Kim Jong-il. We showed participants a picture of the relevant threat agent and had them rate their emotional responses toward the target, after which they rated a variety of threats posed by the target. We hypothesized that, to the extent that emotion experienced prior to the target evaluation tasks predicted perceived threat, it would be mediated by emotion specifically evoked by the threat agent.

Finally, we examined how our Canadian sample perceived the threats posed by OBL and GWB as a function of their geographic context (namely, Canada or international) and their value domain (namely, threats to national security or individuals rights). We expected that participants would perceive greater threat in the international domain than in the Canadian context, given that Canada has experienced few acts of terrorism. Our examination of value domain was exploratory and motivated by the fact that national security and personal freedoms represent two of the key values underlying debates about the threat of terrorism and counter-terrorism response, and discussions of the appropriateness of counter-terrorism response often focus on the need to balance these values. Therefore, they represent a key value tradeoff in the terrorism domain.

Method

Participants

A sample of 120 (45 male and 75 female) University of Toronto undergraduates (18 years and older) volunteered for the experiment and received $16.25 for their participation.

Materials and Procedure

Participants completed the study between February and October 2006--namely, within the first quarter of GWB's second presidential term. The experiment was administered to each participant individually. Participants were randomly assigned to one of six experimental conditions in a 3 (Emotion: anger, neutral, fear) × 2 (Target: OBL, GWB) factorial design. We employed a standard "multiple unrelated studies" paradigm (Goldberg et al., 1999). Upon entering the lab, participants were informed that in order to get credit for a full hour of research participation, two unrelated studies would be administered on behalf of different researchers. They were told that the first study was about their emotional responses to a short video. In fact, this was our experimental manipulation of emotion. Participants were told that the second study involved indicating their attitudes toward a well-known individual and various important issues, and that more thorough instructions about it would be provided following the completion of the first study. The multiple-studies cover story was reinforced by having each participant sign separate consent forms printed in different fonts.

After completing the consent forms, participants were seated in a quiet lab cubicle where the experiment was administered on a personal computer. Fear, anger, and neutral emotions were elicited using 3-4 min film segments following Gross and Levenson (1995). The segments depicting fear and anger were edited from *Silence of the Lambs* and *My Bodyguard*, respectively. The control segment depicted abstract shapes that have been shown to elicit neutral emotion. Participants were placed in cubicles to increase privacy and thereby facilitate emotional immersion in the film. The experimenter started the film segment and left the cubicle, keeping track of time while waiting in the general lab area, and re-entering the cubicle to administer the emotion manipulation check once

the duration of the film segment had elapsed. The manipulation check, also taken from Gross and Levenson (1995), instructed participants to rate the extent to which they felt 18 different emotions (amusement, embarrassment, love, anger, fear, pride, anxiety, guilt, sadness, confusion, happiness, shame, contempt, interest, surprise, disgust, joy, and unhappiness) while watching the film on a 9-point rating scale (0 = none at all, 8 = extremely). Gross and Levenson's (1995) emotion elicitation method has been used in numerous studies and is considered to be a superior technique for eliciting specific emotions (see Rottenberg, Ray, & Gross, 2007). Neuroimaging evidence has shown that a largely overlapping neural system is activated regardless of whether subjects are instructed to actively rate their emotional state while viewing the movies or passively view the movies (Hutcherson, Goldin, Ochsner, Gabrieli, & Gross, 2005). To the extent that the experience of emotion is a function of brain activity, this indicates that the movies can elicit the intended emotion under attentive and passive viewing conditions.

Following the manipulation check, participants were also asked to respond to two questions about the content of the film in keeping with our cover story (i.e., "Have you ever experienced an emotion similar to the one you experienced while watching this movie?" and "How likely is it that other people will experience the same emotion you did while watching this movie clip?") (see Goldberg et al., 1999). The completion of this questionnaire marked the end of the first phase of our experiment. The cover story was reinforced further by thanking participants for having completed Study 1.

After completing the first phase, participants were instructed to begin "Study 2" on the same computer. Completion of the various sections in the second phase was self-paced. Participants were presented with a color image of either GWB or OBL and were asked to indicate the extent to which the target made them feel the emotions of anger, anxiety, contempt, disgust, embarrassment, fear, moral outrage, sadness, amusement, calm, happiness, interest, pride, and surprise using 9-point rating scales (0 = none at all, 8 = extremely). The set of emotions used to ascertain emotional response toward the target was not identical to the previous set in order to reduce the likelihood that participants would draw a

connection between the two phases of the experiment. Next, participants were instructed to assess how much of a threat they thought the target posed to Canada's national security, the security of nations worldwide, the rights and freedoms of Canadian citizens, and the rights and freedoms of citizens worldwide using 7-point rating scales (1 = none at all, 7 = extremely). Participants then completed a number of measures that were unrelated to this study and therefore will not be discussed here. Finally, we conducted a funnel interview, following Goldberg et al. (1999), to examine whether participants in fact believed that they had completed two separate studies. No subject reported awareness of the hypothesis and, therefore, none was excluded from our analyses.

Results

Manipulation Check

Our manipulation of emotion was effective. As Table 1 shows, participants in the anger condition reported feeling significantly angrier than participants in either the neutral or fear condition. Conversely, participants in the fear condition reported feeling significantly more fearful than participants in either the neutral or anger condition.

TABLE 1:
Mean Fear and Anger by Emotion Condition

	Emotion Condition		
Rated Emotion	Anger	Neutral	Fear
Anger[a]	5.43_a (1.68)	1.13_b (1.82)	2.10_c (2.07)
Fear[b]	2.40_a (2.18)	0.79_b (1.55)	4.60_c (2.47)

Note. Standard deviations are shown in parentheses. Within rows, means with different subscripts differ significantly at the $\alpha = .05$ level by Fisher LSD test.
[a]Main effect of emotion on anger ratings: $F(2, 117) = 59.41$, $MSE = 3.47$, $p < .001$, $\eta_p^2 = .50$. [b]Main effect of emotion on fear ratings: $F(2, 117) = 38.74$, $MSE = 3.74$, $p < .001$, $\eta_p^2 = .40$.

State Emotion

We conducted a principal components factor analysis without rotation of the 18 state emotion ratings, which generated a five-factor solution. Based on a scree-plot examination, we retained the first two components: *Negativity* (Factor 1) accounted for 31.50% of the variance, whereas *Positivity* (Factor 2) accounted for 16.02% of the variance. Item loadings on these factors are shown in Table 2, along with the item means. Most of the items

loaded as one might expect. However, there were two exceptions. Pride loaded more strongly on Negativity and confusion loaded more strongly on Positivity.

We examined the convergent validity of the two-factor solution using a theory-driven method whereby the emotion items typically identified as negative (i.e., disgust, anger, unhappiness, sadness, contempt, shame, embarrassment, guilt, anxiety, fear, and confusion) were assessed in terms of their scale reliability, as were the emotion items typically thought of as more positive than negative (e.g., interest, amusement, surprise, joy, happiness, love, and pride). The *state negativity* scale (NEG-STATE), an average of the items, had good reliability (Cronbach's α = .89), and the *state positivity* scale (POS-STATE) had acceptable reliability (Cronbach's α = .68). The correlation between the Negativity factor and NEG-STATE was .99. The correlation for the Positivity factor and POS-STATE was .97. Given these high correlations, we relied solely on the scales in subsequent analyses. Neither scale significantly differed as a function of gender.

Emotion Item	Negativity	Positivity	Item Mean
Disgust	**.83**	−.00	3.61 (3.09)
Anger	**.82**	−.18	2.96 (2.62)
Unhappiness	**.81**	−.18	2.99 (2.37)
Sadness	**.81**	−.13	2.73 (2.70)
Contempt	**.76**	.10	2.74 (2.63)
Shame	**.74**	−.05	1.18 (2.10)
Embarrassment	**.70**	−.08	0.93 (1.84)
Guilt	**.64**	.06	1.08 (1.92)
Anxiety	**.59**	.37	3.53 (2.69)
Fear	**.53**	.41	2.62 (2.47)
Pride	**.33**	.17	0.58 (1.42)
Interest	.11	**.73**	3.75 (2.68)
Amusement	−.19	**.71**	2.35 (2.31)
Surprise	.21	**.66**	2.85 (2.37)
Joy	−16	**.64**	0.87 (1.62)
Happiness	−29	**.62**	0.77 (1.42)
Confusion	.21	**.39**	2.57 (2.22)
Love	.10	**.18**	0.32 (0.80)

TABLE 2: Anticipatory Emotion Factor Loadings

Note. Dominant factor is shown in bold. Values in parentheses are standard deviations.

Emotion Evoked by the Threat Agent

We assessed the reliability of a *negativity toward agent* scale (NEG-AGENT) comprised of measures of anger, anxiety, contempt, disgust, embarrassment, fear, moral outrage, and sadness items, and we assessed the reliability of a *positivity toward agent* scale (POS-AGENT) comprised of measures of amusement, calm, happiness, interest, pride, and surprise items. NEG-AGENT had good reliability (Cronbach's $\alpha = .84$) and POS-AGENT had acceptable reliability (Cronbach's $\alpha = .60$). Table 3 shows the mean of the scale items by threat agent. Table 4 shows the correlations among state and agent-related emotion scales. The only significant finding was the positive correlation between NEG-STATE and NEG-AGENT. Neither scale differed significantly as a function of gender.

TABLE 3: Mean Agent-related Emotion by Threat Agent and Valence

Emotion	Threat Agent	
	GWB	OBL
Negative		
Anger	5.68 (2.37)	5.24 (2.60)
Anxiety	4.40 (2.51)	4.45 (2.37)
Contempt	4.66 (2.62)	3.81 (2.65)
Disgust	5.76 (2.35)	5.83 (2.49)
Embarrassment	4.63 (2.62)	2.03 (1.86)
Fear	4.03 (2.69)	4.57 (2.33)
Moral outrage	4.87 (1.64)	4.91 (1.54)
Sadness	4.98 (2.63)	5.38 (2.41)
Positive		
Amusement	4.16 (2.46)	2.26 (1.90)
Calm	2.87 (1.95)	2.72 (2.25)
Happiness	2.03 (1.41)	1.62 (1.15)
Interest	4.55 (2.15)	4.74 (2.14)
Pride	1.74 (1.35)	1.43 (1.20)
Surprise	3.11 (1.74)	3.48 (2.13)

Note. Values in parentheses are standard deviations.

TABLE 4: Correlations among Emotion Scales

	2	3	4
1. NEG-STATE	.00	.37*	−.03
2. POS-STATE	—	.06	.03
3. NEG-AGENT		—	−.17
4. POS-AGENT			—

*$p < .01$. All other correlations are nonsignificant at $\alpha = .05$.

A multivariate analysis of variance (MANOVA) on the NEG-AGENT scale items revealed significantly greater negativity toward GWB than OBL, Hotelling's Trace = 0.51, $F(8, 111) = 7.12, p < .001$, $\eta_p^2 = .34$. Univariate ANOVAs showed that GWB evoked stronger feelings of embarrassment than OBL, $F(1, 118) = 38.62$, $MSE = 5.22$, $p < .001$, $\eta_p^2 = .25$. A MANOVA on the POS-AGENT scale items revealed significantly greater positivity toward GWB than OBL, Hotelling's Trace = 0.25, $F(6, 113) = 4.74, p < .001$, $\eta_p^2 = .20$. Univariate ANOVAs showed that GWB evoked stronger feelings of amusement than OBL, $F(1, 118) = 22.24$, $MSE = 4.88$, $p < .001$, $\eta_p^2 = .16$.

Perceived Threat

We began our analysis of perceived threat by subjecting participants' responses to the four threat items (excluding the world peace item, which did not fit into this design) to a 2 (Region: Canada, international) × 2 (Threat Type: national security, individual rights) × 2 (Agent: GWB, OBL) × 3 (Emotion: anger, neutral, fear) mixed ANOVA. A significant main effect of region was found, $F(1, 114) = 90.39$, $MSE = 1.56$, $p < .001$, $\eta_p^2 = .44$. As anticipated, and as shown in Table 5, participants perceived greater threat posed by our targets to the world, in general, than to Canada, in particular. A significant main effect of threat type was also found, $F(1, 114) = 5.65$, $MSE = 0.82$, $p < .02$, $\eta_p^2 = .05$. As Table 5 shows, participants perceived greater threat to national security than to individual rights. No other effect was significant. Of theoretical significance, then, our manipulation of emotion did not influence perceived threat, even though the manipulation itself was shown to have been effective.

Next, we examined whether the threat items could be reduced to a composite measure to simplify our subsequent analyses. As Table 6 shows, all five items were positively and significantly correlated, and had good scale reliability (Cronbach's $\alpha = .87$). We averaged these items to comprise the THREAT scale. Contrary to some previous research (e.g., Lerner et al., 2003), THREAT did not significantly differ as a function of gender.

TABLE 5:
Perceived Threat by Region and Threat Type

	Threat Type		
Region	Security	Rights	*M*
Canada	4.00 (1.55)	3.83 (1.63)	3.92 (1.46)
International	5.12 (1.35)	4.91 (1.47)	5.02 (1.32)
M	4.56 (1.28)	4.37 (1.36)	4.47 (1.24)

Note. Values in parentheses are standard deviations. Standard deviations shown in the *M* column and row are based on the mean of the relevant items.

TABLE 6:
Correlations among Threat Items

	2	3	4	5
1. Canada-Security	.70	.55	.40	.47
2. Canada-Rights	—	.53	.54	.55
3. International-Security		—	.76	.71
4. International-Rights			—	.66
5. World Peace				—

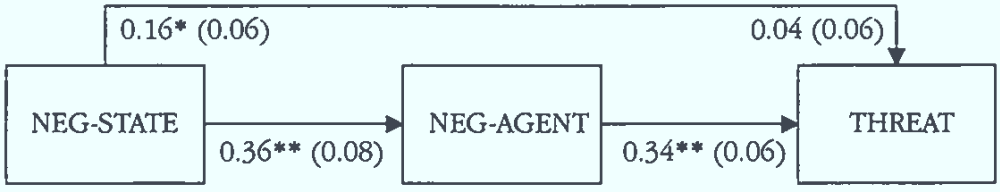
Note. $p < .01$ for all correlations ($df = 118$).

Emotion and Perceived Threat

We began by examining the correlations between state emotion and perceived threat. Supporting our hypothesis that negative state emotion may be more predictive of perceived threat than positive state emotion, we found that THREAT was significantly correlated with NEG-STATE ($r = .24$, $df = 118$, $p < .01$) but was not significantly correlated with POS-STATE ($r = .01$).

Next, we sought to test our hypothesis that a predictive effect of state emotion on perceived threat would be mediated by emotion evoked by the threat agent. To test that model, we used Kenny, Kashy, and Bolger's (1998) regression procedure, the results of which are summarized in the mediator model shown in Figure 1. As Figure 1 shows, NEG-AGENT fully mediated the predictive effect of NEG-STATE on THREAT. A Sobel test of the meditational effect was significant, $z = 3.47$, $p < .001$. Using the methods developed by Preacher, Rucker, and Hayes (2007), we also confirmed that agent (i.e., OBL *vs.* GWB) did not moderate the predictor-mediator relation or the mediator-criterion relations.

FIGURE 1:
Mediator model. Values are unstandardized regression weights with standard errors in parentheses. Weights without asterisks are nonsignificant at $\alpha = .05$.



*$p < .01$, **$p < .001$.

Discussion

Implications for Emotion Theories of Risk Perception

The present research was guided by a number of theory-driven hypotheses concerning the effect of current (i.e., state) emotion on threat perceptions. We tested both emotion-specific and valence-based predictions and sought to extend those predictions in some novel and important ways. The findings were clear in providing discriminating support for the various accounts reviewed earlier. First of all, despite the demonstrated effectiveness of our manipulation of fear and anger, we did not find evidence that either emotion influenced threat perception when compared to a neutral baseline condition. Although our findings do not conclusively disconfirm emotion-specific theories – indeed, such would be virtually impossible to do in contexts where causal relations are expressed in probabilistic terms – we believe that they, along with other recent findings (e.g., Bruine de Bruin et al., 2006), cast some doubt on the robustness of these theories' predicted effects, especially insofar as the effects of fear and anger on risk perception are concerned. It is possible that an effect might have been observed had we not included a manipulation check requiring participants to self–assess their emotional states – some have argued that such procedures attenuate the emotional effect on subsequent judgment (Keltner et al., 1993). However, even if that were the case, then we believe it would still speak similarly to the issue of robustness of such effects.

Although our experimental design did not permit an examination of the *causal* effect of affective positivity and negativity on threat perception, we were nevertheless able to confirm a direct predictive effect of negative state emotion on threat perception. We were also able to show that this predictive effect was limited to the negativity, but not the positivity, of emotion. This novel finding suggests an important qualification to valence-based theories – namely, that it is mainly the degree of negativity that influences threat perceptions rather than the overall good-bad quality of current emotions (cf. Loewenstein et al., 2001; Slovic et al., 2002). Thus, to the extent that emotion is used as a heuristic for judging risk (e.g., Slovic et al., 2002), it appears that negative emotion is more influential than positive emotion, perhaps due

to its high degree of representativeness to the target of judgment.

Importantly, we demonstrated that the nature of the relationship between negative state emotion and perceived threat was mediated by the negative emotion evoked by the threat agent being evaluated. This result suggests a two-stage affective process: First, a person's current level of negative emotion unrelated to a subsequent target of evaluation can "spill over" to affect emotional responses to that target. And, secondly, the negative emotion thus evoked by the target of evaluation can subsequently serve as a cue to (or proxy measure of) the degree of perceived threat posed by the target.

Implications for Threat Perception in the Terrorism Context

Our findings are consistent with the earlier EKOS polling results (Harper, 2006) showing that Canadians perceive GWB to represent a threat comparable to that posed by Al Qaeda's supreme leader, OBL. Extending these earlier results, we showed that this rough equality of threat was consistent across Canadian and international contexts and across threats to national or international security and personal rights and freedoms. For our Canadian sample, these threats were seen as being of greater concern on the international stage than in Canada. As we noted earlier, this result is consistent with the fact that Canada, unlike many of its Western allies, has thus far avoided being the victim of a major terrorist attack linked to al Qaeda.

Participants also perceived greater concern in terms of the security dimension than in terms of rights and freedoms. The bases for this result are presently unclear. One possibility is that the security issues are less abstract than the rights issues and lead to more salient depictions of harm. Compared to low-level (relatively concrete) construals, high-level (relatively abstract) construals also lead to assessments of action being implemented further into the future (Liberman, Trope, Macrae, & Sherman, 2007) and to lower probability estimates (Wakslak & Trope, in press). In the terrorism context, that may translate into reduced perceived threat if the possibility of harm is seen as relatively far

off in the future or less probable. Future research could, for instance, examine whether manipulations of construal level influence the relative degree of perceived harm from, perceived likelihood of, security and human rights threats occurring.

Finally, the present findings point to the strategic importance of being able to manipulate people's emotions, particularly their negative emotion, in the terrorism domain. There is widespread agreement that strategic success in terrorist and counter-terrorist operations requires winning over public opinion – or, to use a hackneyed phrase, people's hearts and minds. The present findings indicate that the link between the heart and the mind is a strong one, at least when it comes to evaluations of the threat posed by iconic actors such as OBL and GWB. Regardless of whether participants evaluated Bush or Bin Laden as a potential source of threat, we found that the degree of negative emotion evoked in participants by the threat agent was predictive of the degree of threat that they perceived the agent to pose. In other words, the more negative Bush or Bin Laden made participants feel, the more threatening the latter judged them to be.

The findings are particularly relevant in the terrorism context because terrorists often try to get the leaders of victimized states to respond in ways that may compromise or be perceived to compromise their moral and ethical values. The consequence of this process is that the victim may end up being seen as the aggressor, especially if the victim is also seen as a powerful entity like the U.S. Such attributions can, in turn, trigger moral outrage and strong negative sentiment toward the perceived aggressor within public constituencies, including involved bystander communities such as Canada has been in the context of 9/11. These socio-cognitive factors are of strategic importance in fighting terrorism for mastery of them is key to achieving influence. It is obvious that winning such strategic games will require far more than kinetic force, but to do so the human dimensions will first need to be far better understood.

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(U) The authors conducted an experiment to examine the effect of specific (fear and anger) and global emotional states on perceptions of threat posed by either George W. Bush or Osama Bin Laden. Findings revealed a case of moderated mediation: For participants who evaluated Bush, negative state emotion directly predicted perceived threat and was fully mediated by negative emotion evoked by Bush. For participants who evaluated Bin Laden, however, negative state emotion did not predict perceived threat. The authors discuss implications of the findings for theories that postulate an effect of emotion on risk perceptions and for understanding threat perception in the terrorism context.

(U) Les auteurs ont mené une expérience pour examiner l'effet de certains états émotionnels particuliers (peur et colère) et de l'état émotionnel général sur la perception de la menace que représentent George W. Bush ou Oussama ben Laden. Les résultats ont révélé que cet effet est modéré : Dans le cas de Bush, on a découvert que les états émotionnels négatifs avaient un lien direct avec la perception de la menace, et qu'ils étaient pleinement attribuables aux émotions négatives inspirées par Bush. Cependant, dans le cas de Ben Laden, on a constaté que les états émotionnels négatifs ne permettaient pas de prédire la perception de la menace. Les auteurs ont discuté des implications de ces résultats pour les théories qui postulent que les émotions ont un effet sur la perception du risque, et pour la compréhension de la perception de la menace dans le contexte du terrorisme.

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