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Ingrid J. Haas
University of Nebraska-Lincoln, ihaas2@unl.edu

William A. Cunningham
University of Toronto, William.Cunningham@Rotman.Utoronto.Ca

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The Uncertainty Paradox: Perceived Threat Moderates the Effect of Uncertainty on Political Tolerance

Ingrid Johnsen Haas[1] and William A. Cunningham[2,3]

1. University of Nebraska–Lincoln
2. The University of Toronto
3. The Ohio State University

Corresponding author – Ingrid J. Haas, email ihaas2@unl.edu

Abstract
People respond to dissimilar political beliefs in a variety of ways, ranging from openness and acceptance to closed-mindedness and intolerance. While there is reason to believe that uncertainty may influence political tolerance, the direction of this influence remains unclear. We propose that threat moderates the effect of uncertainty on tolerance; when safe, uncertainty leads to greater tolerance, yet when threatened, uncertainty leads to reduced tolerance. Using independent manipulations of threat and uncertainty, we provide support for this hypothesis. This research demonstrates that, although feelings of threat and uncertainty can be independent, it is also important to understand their interaction.

Keywords: anxiety, political tolerance, threat, uncertainty

People are often confronted with political beliefs that differ from their own, and they can respond to these ideas in different ways. One may consider new ideas and decide whether or not to incorporate them into his or her beliefs, or, alternatively, they may refuse to even consider them. Political tolerance requires a "willingness to permit the expression of ideas or interests that one opposes" (Sullivan, Piereson, & Marcus, 1979, p. 784). A lack of political tolerance is thought to be a detriment to open democracy and the generation of new ideas; thus, political tolerance is often viewed as normatively desirable (Gibson, 2006; Sullivan et al., 1979). In this article, we examine the situational effects of emotion on political tolerance and attempt to resolve what seems like a paradox in the literature—that uncertainty has been shown to increase open-mindedness and information search as well as closed-mindedness and intolerance.

Contrary to the idea that people engage in rational decision making about politics, recent work in political psychology has demonstrated the pervasive impact of emotion on political judgment. Reasoning about political issues and candidates is often biased—influenced by affective responses (Lodge & Taber, 2005), desired outcomes (Taber & Lodge, 2006), and specific emotions (Huddy, Feldman, & Cassese, 2007; Marcus, Neuman, & MacKuen, 2000). Much of the work on specific emotions has focused on the role of negative emotions (e.g., anxiety, aversion, anger, threat), showing that they have distinct and sometimes contradictory outcomes (Huddy et al., 2007; Huddy, Feldman, & Taber, 2005; MacKuen, Marcus, Neuman, & Keele, 2007; MacKuen,

Wolak, Keele, & Marcus, 2010). For example, anxiety has been shown to lead to increased deliberation, while aversion leads to increased partisanship (MacKuen et al., 2010). As our understanding of the role of emotion in politics becomes more nuanced, it becomes necessary to consider that affective states may have both independent and joint effects on political outcomes. In the present work, we focus on the idea that uncertainty is an affective state that is highly context dependent and may impact political tolerance differently as a function of other situational considerations, such as perceived threat.

Decades of political science work on political tolerance has shown that perceived threat leads to greater intolerance (Marcus, Sullivan, Theiss-Morse, & Wood, 1995; Stouffer, 1955; Sullivan, Marcus, Feldman, & Piereson, 1981; Sullivan, Piereson, & Marcus, 1982). In recent work, tolerance has often been measured using the least-liked groups method, where participants name and make civil liberties judgments about their least-liked group (Sullivan et al., 1982). As perceived threat posed by the group increases, so do levels of intolerance (Marcus et al., 1995; Sullivan et al., 1982). However, the role of uncertainty remains unclear. Marcus and colleagues (1995) manipulated both threat and probability of power, showing that while threat had a strong negative effect on tolerance, probability had no effect on tolerance judgments. However, there is still reason to believe that uncertainty may impact tolerance.

In order to examine the impact of uncertainty on political tolerance, it is necessary to consider the relevant literature in social psychology. Feelings of uncertainty signal a lack of information or a lack of confidence in current information—either about the environment or the self. Often, this sense of uncertainty follows from a failure to adequately predict future outcomes. Given that more accurate mental models are beneficial to one's survival and well-being, uncertainty is generally viewed as an aversive state that we are motivated to reduce (e.g., Heine, Proulx, & Vohs, 2006; Hogg, 2007; Inglis, 2000; Lind & Van Den Bos, 2002; Peterson & Flanders, 2002). Yet, there are a variety of ways to accomplish a reduction in uncertainty (Peterson, 1999).

Uncertainty can lead to an open-minded, exploratory stance in which people are willing to consider and incorporate new information in order to improve their predictive ability. Often, information exploration may be the most adaptive strategy, as one potential cause of uncertainty is a mismatch between current knowledge and epistemic goals to understand the social context and predict future outcomes (Kruglanski, 1990; Peterson & Flanders, 2002; Trope & Liberman, 1996). Consistent with this view, the theory of affective intelligence argues that uncertainty increases anxiety, which leads to greater deliberation and willingness to engage in compromise about political issues (MacKuen et al., 2007; MacKuen et al., 2010; Marcus et al., 2000). Uncertainty also leads people to abandon motivated reasoning processes in favor of more balanced information updating about hypothetical political candidates (Redlawsk, Civettini, & Emmerson, 2010). This exploratory response to uncertainty may be more likely to lead to increased political tolerance. However, this is not the only response to uncertainty that has been observed in the psychological literature.

People may sometimes choose to undermine feelings of uncertainty by adopting a closed-minded, defensive stance. Thus, an opposing way to decrease uncertainty may be to avoid the uncertainty-evoking information and/or actively work to undermine the source of the information. Consistent with this view, uncertainty has been shown to lead to increased confidence in and dedication to one's prior attitudes, values, moral beliefs, and social identity (Hogg & Mullin, 1999; I. McGregor, 2006b; I. McGregor, Zanna, Holmes, & Spencer, 2001; Proulx & Heine, 2008; Proulx, Heine, & Vohs, 2010; Van Den Bos, Poortvliet, Maas, Miedema, & Van Den Ham, 2005). Indeed, much of the social psychological literature in recent years has focused on this response to uncertainty, and researchers have developed multiple models to explain it, including the Meaning Maintenance Model (Heine et al., 2006), Uncertainty Management Model (Lind & Van Den Bos, 2002), and Reactive Approach Motivation Model (I. McGregor, Nash, Mann, & Phills, 2010). This response to uncertainty is more likely to lead to a decrease in political tolerance.

Taken together, past work suggests that uncertainty may increase or decrease tolerance, which makes it difficult to predict what will happen in any given situation and indicates that moderating factors may play a role.

When considering the mechanisms of the relationship between uncertainty and tolerance, psychological models have often proposed that threat and uncertainty are linked. As noted above, uncertainty is often viewed as an aversive state and as such may be interpreted as threatening (e.g., Heine et al., 2006; I. McGregor et al., 2010; Mendes, Blascovich, Hunter, Lickel, & Jost, 2007). When people feel threatened, they often respond by becoming more confident in and more defensive of their prior beliefs, more closed-minded, and more aggressive toward those who disagree with them (e.g., Lavine, Lodge, & Freitas, 2005; H. A. McGregor et al., 1998; See & Petty, 2006). This necessarily complicates the view of uncertainty presented in the previous paragraph because it now becomes necessary to consider the role of threat.

In fact, many of the theories discussed above in relation to the uncertainty-intolerance link explicitly discuss the role that threat might play, while many empirical papers on uncertainty fail to control for threat. For example, the Meaning Maintenance Model suggests that uncertainty (in the form of expectancy violations) may function as a threat to meaning (Heine et al., 2006). Personal uncertainty is likely to feel threatening in many situations because it undermines one's confidence and has been shown to lead to many of the same negative outcomes as threat (I. McGregor, 2006a; I. McGregor et al., 2010; Van Den Bos, 2009; Van Den Bos et al., 2005). As this discussion suggests, uncertainty and threat have been linked in much of the work showing that uncertainty increases adherence to prior beliefs. This is potentially problematic as uncertainty and threat have often been confounded, and we argue that this might be why it often seems like uncertainty leads to closed-mindedness instead of openness.

Although uncertainty may be attached to threat or perceived as threatening, considering uncertainty only when explicitly tied to threat limits our conceptual understanding of these affective states and their consequences. Where threat suggests the potential for harm and is always negative in valence, uncertainty can be relatively more negative or positive depending on the context. For example, uncertainty about the current economic climate is probably more threatening for the average American than uncertainty about the specific details of a new health care policy. Similarly, social psychologists have suggested that personal uncertainty (i.e., uncertainty about the self) may be more threatening than informational uncertainty (i.e., lack of information about the situation; I. McGregor, Prentice, & Nash, 2009). Therefore, although threat and uncertainty may sometimes provide similar signals, they should be considered conceptually distinct (see Figure 1).

This conceptualization of threat and uncertainty allows for the idea that the presence of threat may change the expression of uncertainty. In fact, prior research provides some support for the

Figure 1. Conceptual relationship between uncertainty and threat.

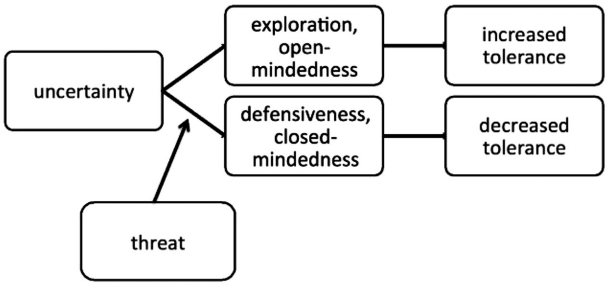

Figure 2. Hypothesized relationship between uncertainty and political tolerance as a function of threat.

idea that uncertainty may function differently when attached to a positive versus a negative event. For example, Wilson, Gilbert, and their colleagues have shown that while uncertainty tends to make negative events feel more negative, it makes positive events feel even more positive (Bar-Anan, Wilson, & Gilbert, 2009; Wilson, Centerbar, Kermer, & Gilbert, 2005). In relation to the link between uncertainty and tolerance, when people feel safe, uncertainty may be more likely to lead to exploration and an attempt to gather new information. However, when people feel threatened, uncertainty may more likely to lead to a defensive, closed-minded response (see Figure 2), consistent with prior work showing that threat decreases tolerance (e.g., Marcus et al., 1995). If the response to uncertainty depends on perceptions of threat, examining the interaction of these affective states may help to elucidate the relationship between uncertainty and tolerance.

In two experiments, we examined the effects of uncertainty, threat, and their interaction on political tolerance by independently manipulating and controlling for both uncertainty and threat. We predicted that threat would moderate the relationship between uncertainty and tolerance. Specifically, uncertainty should decrease tolerance when people are feeling threatened. We argue, based on prior research, that this combination of uncertainty and threat is likely to produce defense of prior attitudes and beliefs. By contrast, when threat is absent, uncertainty should produce the opposite effect, increasing tolerance. When uncertainty is not perceived as threatening or attached to threat, it should be more likely to lead to consideration of opposing viewpoints and new information. It is critical to determine whether threat interacts with uncertainty to produce distinct outcomes.

Experiment 1

In experiment 1, we examined the independent and interactive effects of uncertainty and threat on political tolerance. We used two manipulations from prior research in social psychology to independently manipulate uncertainty and threat to examine four possible combinations: uncertainty and threat, certainty and threat, uncertainty without threat, and certainty without threat.[1] After the manipulations, participants completed a scale designed to measure political tolerance.

Participants and design. Eighty-five undergraduate students (51.8% female; age range: 18–29) were randomly assigned to the conditions of a 2 (uncertainty/certainty) × 2 (threat/control) × 2 (counterbalanced) between-subjects experimental design. Two participants were removed for mean reaction times on the dependent measure that were more than two standard deviations from the overall participant mean—suggesting they were responding to the questions much more quickly or more slowly than average—leaving 83 participants for analysis.

1. Importantly, these manipulations were not explicitly political. We hypothesize that the situation eliciting changes in affect need not be tied to politics to influence political outcomes, as the underlying psychological processes should be similar. But, the impact of political threat and uncertainty should be examined in future work.

Procedure. All materials were presented on individual PCs in a laboratory setting using MediaLab Research Software (Jarvis, 2004). Participants first completed the manipulations of uncertainty and threat. All participants received two manipulations and order of the manipulations was counterbalanced—participants were randomly assigned to receive either a threat (vs. no threat) or uncertainty (vs. certainty) manipulation first. To manipulate threat, we used a version of the mortality salience manipulation commonly used in psychological research on Terror Management Theory (Greenberg, Pyszczynski, & Solomon, 1986).

Participants randomly assigned to the threat condition responded to two open-ended questions: "Please briefly describe the emotions that the thought of your own death arouses in you" and "Jot down, as specifically as you can, what you think will happen to you physically as you die and once you are physically dead." Participants in the control condition responded to similar questions regarding dental pain. Uncertainty was manipulated using the uncertainty salience manipulation (Van Den Bos, 2001). Participants randomly assigned to the uncertainty condition responded to two open-ended questions: "Please briefly describe the emotions that the thought of being uncertain arouses in you" and "Jot down, as specifically as you can, what you think will happen to you physically as you feel uncertain." Participants in the certainty condition responded to similar questions regarding certainty. Next, participants completed the Positive and Negative Affect Schedule (PANAS-X; Watson, Clark, & Tellegen, 1988) to serve as a delay before the dependent measures.[2] After completing the PANAS-X, participants completed a scale designed to measure political tolerance (Cronbach's alpha = 0.75; Haas, Cunningham, & Nezlek, in prep.). These items measure the extent to which people believe that those who hold counterattitudinal positions should be silenced or prevented from having their opinions heard (e.g., "We need to actively oppose those who disagree with us"; see the appendix for a complete list of items). Items were evaluated using a 6-point Likert-type scale (1 = strongly disagree; 6 = strongly agree), and responses were averaged into a composite score where higher values indicate lower levels of political tolerance (i.e., greater intolerance). This scale was designed to be orthogonal to the specific content of political beliefs and generally shows a weak relationship with political values such as preference for tradition and egalitarianism (Haas et al., in prep.). This is important because the amount of political tolerance expressed is not limited by any specific policies or groups provided during measurement—similar to the least-liked group measure commonly used in political science (see Sullivan et al., 1979). Finally, participants were asked to provide their political identification on a single item using a 7-point Likert-type scale (1 = very liberal; 4 = moderate; 7 = very conservative).

Results and Discussion. The impact of threat and uncertainty (and their interaction) on political tolerance was modeled using ANOVA. Consistent with the hypothesis that threat and uncertainty are separable, the effect of uncertainty on political tolerance was moderated by threat ($F(1, 79) = 4.865$, $p < .05$). As shown in Figure 3, when threat was present, uncertainty was associated with greater intolerance than certainty whereas when threat was not present, uncertainty was associated with greater tolerance than certainty. Planned contrasts indicated that in the threat condition, uncertainty ($M = 3.439$, $SD = .701$) decreased tolerance relative to certainty ($M = 2.956$, $SD = .626$; $p < .05$). While this difference was not significant in the no-threat condition, the means were in the predicted direction (uncertainty: $M = 3.148$, $SD = .611$; certainty: $M = 3.310$, $SD = .696$; $p = 0.218$). Critically for the interactive hypothesis, neither the main effect of threat nor the main effect of uncertainty reached significance (both ps > .27).

2. Prior research on Terror Management Theory suggests that the effects of these manipulations are strongest following a delay (Pyszczynski, Greenberg, & Solomon, 1999; Wichman, Brunner, & Weary, 2008). Consistent with prior research using the PANAS-X as a delay (e.g., Greenberg, Solomon, & Arndt, 2007), the manipulations had no significant effects on the PANAS-X subscales.

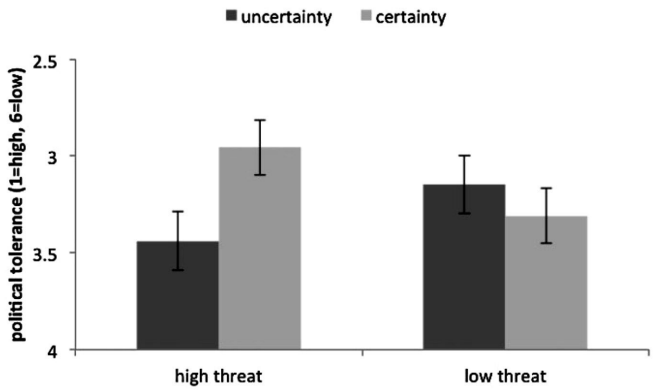

Figure 3. Mean political tolerance scores (1 = high, 6 = low) as a function of experimental condition in Experiment 1. Error bars represent ± standard error.

Because political tolerance is sometimes thought to be associated with political ideology, we conducted an additional analysis to examine whether ideology would moderate the effects of uncertainty and threat. Political ideology was included as a continuous variable in an ANCOVA model including uncertainty, threat, and all interactions (implemented using Univariate GLM in SPSS). The main effect of political ideology on tolerance was nonsignificant ($F(6,59) = .888$, $p = .624$), and political ideology did not moderate the effects of uncertainty and threat (ps > .25) or their interaction ($F(4,59) = .806$, p = .526). The interaction of uncertainty and threat on tolerance remained significant when political ideology was added to the model ($F(1,59) = 6.439$, $p = .05$). In an alternate ANCOVA model where political ideology was simply entered as a continuous covariate, the interaction of threat and uncertainty on political tolerance again remained significant ($F(1,75) = 4.840$, $p < .05$). Overall, results from these analyses suggest that political ideology did not moderate the effects of uncertainty and threat on political tolerance.

Experiment 1 provides some initial support for the idea that threat moderates the relationship between uncertainty and political tolerance. Specifically, we found that uncertainty leads to reduced tolerance in the presence of threat, but it leads to greater tolerance in the absence of threat. This study, however, has some limitations. Although death may be more threatening than dental pain, dental pain may not really represent a "safe" control condition, at least for many individuals. In addition, there is reason to believe that the mortality salience manipulation may already contain an element of uncertainty (see Van Den Bos et al., 2005) and as such may not represent a clean manipulation of threat. Thus, although increasing uncertainty had an additional effect, it may have interacted with the uncertainty already present in the mortality condition. In order to address these limitations, we made some important methodological improvements in Experiment 2. Specifically, we used a new manipulation designed to independently manipulate uncertainty and threat while controlling for both and implemented a "safe" control condition.

Experiment 2

Experiment 1 demonstrated that the effect of uncertainty on political tolerance depends on threat. This lends support for the idea that uncertainty can lead to different outcomes depending on the context. To show that it is the integration of these affective states that leads to reduced tolerance, the manipulations of uncertainty and threat were combined in this study. We also used a physical threat instead of the existential threat used in Experiment 1 in order to see if the effect would generalize to other types of threat. As in the first experiment, we expected that

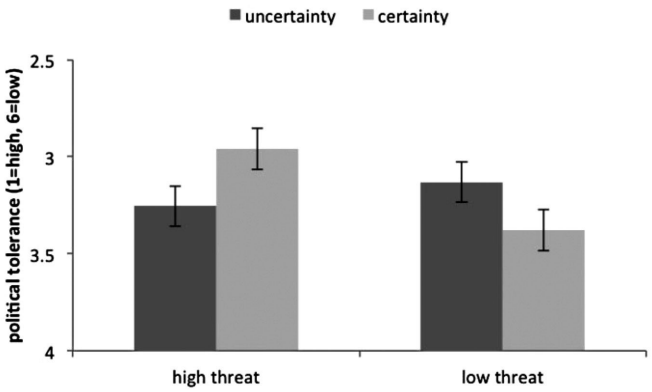

Figure 4. Mean political tolerance scores (1 = high, 6 = low) as a function of experimental condition in Experiment 2. Error bars represent ±1 standard error.

threat would moderate the relationship between uncertainty and tolerance. Again, we predicted that uncertainty would reduce tolerance in the presence of threat, and uncertainty would increase tolerance in the absence of threat.

Participants and design. One hundred and forty-nine undergraduate students (65% female; age range: 18–54) were randomly assigned to the conditions of a 2 (uncertainty/certainty) × 2 (threat/no threat) between-subjects experimental design. Five participants were removed for mean reaction times on the dependent measure that were more than two standard deviations from the overall participant mean, leaving 144 participants for analysis.

Procedure. All materials were presented with MediaLab Research Software (Jarvis, 2004). Participants were presented with one of four scenarios and were asked to describe how that scenario would make them feel. These scenarios were designed to be as equivalent as possible, but they were varied in terms of whether they would elicit threat (vs. no threat) and uncertainty (vs. certainty). Specifically, the scenario involved the arrival of a person at one's home. In the high threat conditions, participants were asked to imagine that the person was trying to break into their home in the middle of the night. In the low-threat conditions, the person rang their doorbell in the middle of the afternoon. In the certain conditions, the person was either successful at breaking into their home (threat condition) or was identified as a friend they had been expecting (no threat condition). In the uncertain conditions, participants were either uncertain about whether or not the person would be successful at breaking into their home (threat condition) or about who was ringing their doorbell (no threat condition). After reading the scenario, participants were asked to provide an open-ended response to the following question: "How would you feel in this situation?" As in Experiment 1, participants then completed the PANAS-X (PANAS-X; Watson et al., 1988),[3] the political tolerance scale (Haas et al., in prep.), and a one-item measure of political identification.

Results and discussion. The impact of threat and uncertainty (and their interaction) on political tolerance was modeled using ANOVA. As in Experiment 1, threat moderated the effect of uncertainty on tolerance ($F(1, 140) = 6.663$, $p < .05$). As shown in Figure 4, when threat was present, uncertainty was associated with greater intolerance than certainty whereas when threat was not present, uncertainty was associated with greater tolerance than certainty. Planned contrasts indicated that, in the threat condition, uncertainty ($M = 3.255$, $SD = .696$) reduced tolerance relative

3. As in Experiment 1, there were no significant effects of the manipulation on the PANAS-X subscales.

to certainty (M = 2.959, SD = .603; p < .05), and for the no-threat condition, this effect was reversed (uncertainty: M = 3.132, SD = .644; certainty: M = 3.379, SD = .555; p = .05). As before, neither the main effect of threat or uncertainty was associated with changes in tolerance (both ps > .16). Political ideology was included as a continuous variable in an ANCOVA model including uncertainty, threat, and all interactions (implemented using Univariate GLM in SPSS). The main effect of political ideology on tolerance was nonsignificant (F(6,118) = .382, p = .863), and political ideology did not moderate the effects of uncertainty and threat (ps > .05)[4] or their interaction (F(5,118) = .470, p = .798). In an alternate ANCOVA model where political ideology was simply entered as a continuous covariate, the interaction of threat and uncertainty on political tolerance remained significant (F(1,139) = 6.400, p < .05). Overall, changes in tolerance in response to threat and uncertainty did not differ for liberals and conservatives. In sum, Experiment 2 replicates the results of Experiment 1 and provides some additional evidence for the idea that uncertainty affects political tolerance differently as a function of threat.

General Discussion

The present research demonstrates that the relationship between political tolerance and feelings of uncertainty is multifaceted. Although uncertainty may sometimes result in reduced tolerance, there are many situations in which uncertainty will lead to a willingness to explore new or different ideas. Indeed, governing in a Democratic society involves resolving uncertainty through such exploratory behavior, and when operating optimally, through an open exchange of ideas. Critically, the present research demonstrates that threat is an important moderator of the relationship between uncertainty and tolerance.

In two experiments, we have shown that uncertainty in the presence of threat leads to reduced tolerance, whereas uncertainty in the absence of threat leads to greater tolerance. In a safe environment, people may attempt to gather new information to improve the quality of their working models about the world. This is consistent with the role of anxiety outlined in the theory of affective intelligence (MacKuen et al., 2007; Marcus et al., 2000). This strategy, however, may only be adaptive when the benefits associated with exploratory behavior are deemed sufficient to outweigh the risks. When threatened, people respond by becoming defensive and closed-minded. This finding is consistent with prior theories describing how people respond to uncertainty, especially personal, existential, or meaning-related uncertainty, when threatened (Meaning Maintenance Model, Heine et al., 2006; Uncertainty Management Model, Lind & Van Den Bos, 2002; Reactive Approach Motivation Model, I. McGregor et al., 2010) and with work in political science showing that threat leads to decreased tolerance (Marcus et al., 1995; Stouffer, 1955; Sullivan et al., 1981; Sullivan et al., 1982). However, it suggests that prior work on political tolerance (e.g., Marcus et al., 1995) may have been too quick to dismiss the role of probability or uncertainty in tolerance judgments.

This work has implications for our understanding of the role of emotion in politics. The theory of affective intelligence has shown that political responses are not always static and can change as a function of current affective states (MacKuen et al., 2007; Marcus et al., 2000). Negative emotions can lead to distinct and opposing outcomes; for example, anxiety is more likely to lead to deliberation while aversion leads to partisanship (MacKuen et al., 2010). Our work suggests that different emotions not only have distinct outcomes, but they may also interact. So, as MacKuen and colleagues suggested (2010), anxiety and aversion may not only show distinct effects, but they may also interact to influence political judgment. Considering not only the differences

4. In Experiment 2, there was a marginal interaction of threat and political ideology on tolerance (F(6,118) = 3.176, p = .068) where conservatives showed greater intolerance in response to threat than liberals. However, this effect is not statistically significant and was not observed in Experiment 1.

between emotions, but also how they interact, has the potential to build on the contributions that have been made in recent decades and continue to improve our understanding of the role of emotion in politics.

Interestingly, this research suggests that there may be multiple mechanisms that lead to a reduction in political tolerance. We show that tolerance is reduced for uncertain threat relative to certain threat but also that tolerance is lower for certainty than uncertainty in the absence of threat. Certainty, uncertainty, and threat likely influence the ways that attitudes are represented and how we express these attitudes and use them to guide our behavior. Uncertain threat and certainty in the absence of threat may both lead to a strengthening of attitudes, but for different reasons. It is likely that the mechanism by which tolerance is reduced differs in these two cases. For threat-related uncertainty, attitude strengthening is likely to be a defensive response to regain the ability to control and predict the world. But, while defensiveness occurs when people are feeling threatened, it may not be necessary for a reduction of tolerance to occur. Certainty and confidence may also reduce the likelihood of considering alternate opinions, which then results in closed-mindedness and intolerance. This may be a more "passive" route to intolerance, where a failure to consider the perspectives of others has similar consequences.

Providing some support for the idea that uncertainty alone is not sufficient to lead to increased intolerance, there is some evidence that when people feel certain, confident, or powerful they also become closed-minded, one potential antecedent of intolerance (see, for example, Shah, Kruglanski, & Thompson, 1998). When people feel powerful, they often fail to consider the perspective of others (Galinsky, Magee, Insesi, & Gruenfeld, 2006), especially when those others are relatively low in power (Fiske, 1993). Further, people who feel confident (or powerful) before being exposed to a persuasive message are less likely to attend to that message (Briñol, Petty, Valle, Rucker, & Becerra, 2007). Importantly, feeling powerful (presumably certain and not threatened) may also lead to intolerance, albeit through a separate mechanism. Critically, what this suggests is that either threat or uncertainty alone may not be the direct cause of intolerance, but rather different combinations of the two may lead to intolerance.

Multiple routes to intolerance may also indicate multiple routes to the promotion of tolerance. In situations where intolerance results from certainty, creating some doubt in the person's mind might reduce intolerance. Doubt should increase open-mindedness, making people more open to opposing opinions and less likely to minimize the opinions of others. Importantly, this doubt should be created without making the person feel threatened. By contrast, if feeling threatened and uncertain is causing the intolerance, there may be multiple ways to reduce it. One way may be to reduce the extent to which people feel threatened, so that defensiveness is reduced and uncertainty becomes less likely to result in intolerance. Alternatively, reducing the uncertainty about the threat by making the threat something more specific may help to focus people's attention on how to actually cope with the threat directly. This might allow for the development of specific strategies to cope with the threat, reducing the amount of general intolerance expressed.

Conclusion

In sum, these results illustrate the importance of considering the surrounding context when examining the impact of uncertainty on political discourse. Whereas previous research in social psychology has demonstrated that uncertainty and threat can lead to similar outcomes, our research shows that this need not always be the case. Allowing for the independence of uncertainty and threat, and carefully controlling for both, demonstrates that uncertainty and threat interact to produce distinct outcomes. Although uncertainty is undoubtedly aversive in many situations, these studies show that a subsequent increase in closed-mindedness, intolerance, or other negative outcomes is not obligatory. Indeed, uncertainty may sometimes be perceived as

a challenge rather than a threat (Tomaka, Blascovich, Kelsey, & Leitten, 1993), leading to exploratory behavior and adaptive cognitive development. Uncertainty may be useful for the political process when it results in increased deliberation and willingness to compromise (MacKuen et al., 2010); however, our work suggests that this may only happen when people are not also feeling threatened. Uncoupling the processes associated with uncertainty and threat (and their interaction) will be necessary to better understand the role of emotion in politics.

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Appendix

Political Tolerance Scale

1. When you have the right position on some issue, you should keep those with the wrong opinion from being heard.
2. Even if an idea seems wrong, it should have as much chance to influence people as an idea that seems right. (reverse-scored)
3. I don't mind at all when people have opinions about issues that I know are wrong. (reverse-scored)
4. We need to actively oppose those who disagree with us.
5. When people are obviously wrong in their opinions, they need to be corrected.
6. Some ideas are just more right than others, and our society should do all it can to see that the right ideas win out over the wrong ideas.
7. The media should not pay much, if any, attention to people who clearly hold the wrong opinions.
8. Children should be taught from an early age to think correctly about social issues.
9. I get angry when I hear people stating opinions that I think are wrong.