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Perceived Polarization: Reconciling Ingroup and Intergroup Perceptions Under Uncertainty

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Two studies investigated how generalized uncertainty affects the tendency to coordinate perceptions of the ingroup with intergroup perceptions. Across two field studies, we found that uncertainty leads to a stronger association between the perceived entitativity of an ingroup and the extent of perceived attitude polarization between the ingroup and outgroup. Study 1 showed that, for striking grocery store employees, feelings of uncertainty were associated with enhanced coordination of ingroup entitativity and intergroup polarization. Study 2 primed Democrat and Republican partisans to feel either high uncertainty or high certainty. Those who felt uncertain associated their perceptions of their group's entitativity with perceived polarization of the two parties more strongly than did those who felt certain. Discussion centers on processes underlying the phenomena as well as the implications of the findings for political polarization in American society.

KEYWORDS entitativity, polarization, political groups, self, uncertainty

As the Writers Guild of America strike that began in 2007 entered its third month, a theme that repeatedly appeared in writers' blogs and commentaries was the extreme uncertainty that they, the writers, were facing. As one writer put it: 'Every night in bed I lay calculating how long I can last before my family's stock hits rock bottom' (St. John, 2008). A similar refrain could be observed in the Californian supermarket strike of 2003–2004. Strikers were assailed by feelings of uncertainty about when (or whether) they would be able to return to work to support their families. One striking shelf-stocker compared it to living life 'on a yo-yo string' (Greenberg, 2004). Uncertainty about the future among those on strike is an extreme

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example of the type of uncertainty that many people face in times of economic or political unrest.

In the present paper, we argue that people may respond to such uncertainty by making judgments that reflect a view of the world as internally consistent and, therefore, more predictable. Thus, when uncertain about the self or one's future, judgments about the ingroup (e.g. whether the striking union is holding strong together or whether one's political party is a distinct group) and the intergroup situation (e.g. how polarized the two sides are on the relevant issues) should cohere to a greater extent than when individuals are feeling particularly certain about themselves or their future. This greater coherence between ingroup and intergroup perceptions could yield both epistemic and motivational benefits for a person who is feeling uncertain. Consistent with sociological and socio-historical analyses of the effects of uncertainty on politics and society (e.g. Burden, 2003; Dunn, 1998; Marris, 1996; Staub, 1989), we present one correlational study conducted with striking grocery store employees and one experimental study conducted with political partisans prior to an election, demonstrating that subjective uncertainty leads to a strong association between ingroup entitativity and perceived intergroup polarization.

Ingroup entitativity

Entitativity is the extent to which a collection of people is perceived as a distinct entity or group. More specifically, it reflects the extent to which a group has sharp boundaries, internal homogeneity, clear internal structure, common goals, and common fate (Campbell, 1958; Hamilton, Sherman, & Castelli, 2002). From both an objective and a perceptual standpoint, groups can vary widely in their entitativity from a loose collection of unrelated individuals, such as people standing in line to board an airplane, to a tight, coherent, and distinctive entity, such as a uniformed dance troupe (e.g. Hamilton, Sherman, & Rodgers, 2004; Ip, Chiu, & Wan, 2006; Lickel et al., 2000).

In a recent theoretical model that examines which characteristics of ingroups makes them psychologically useful, Correll and Park (2005) proposed that ingroup entititativity was a key factor in determining the utility of an ingroup because of the epistemic function that it serves in helping people understand their world. A high entitativity group is one that has distinctive and consensual attributes that are relatively unambiguous—furthermore, such attributes may be perceived to reflect an immutable underlying essence of the group (e.g. Haslam, Rothschild, & Ernst, 2000; Ip et al., 2006; Rothbart & Taylor, 1992; Yzerbyt, Judd, & Corneille, 2004). To the extent that a group is a tight entity, people can use the group information to infer appropriate attitudes in a novel situation.

A recent series of studies (Hogg, Sherman, Dierselhuis, Maitner, & Moffitt, 2007) found that under conditions of uncertainty, people identified more strongly with high than low entitativity groups. In these studies, it was not that uncertainty changed how people perceived their groups, but rather, the effect of uncertainty about the self on identification was moderated by whether or not individuals saw their group as a distinct entity. This finding suggests that under uncertainty, people may be particularly sensitive to the extent to which their group *is* a group, and that this factor may be used as a cue for intergroup judgments (Correll & Park, 2005).

Perceived intergroup polarization

When feeling uncertain, people may also be particularly concerned with establishing intergroup boundaries (Kruglanski, Pierro, Mannetti, & De Grada, 2006). Perceived intergroup polarization refers to a judgment reflecting wide-ranging attitudinal differences between one's own group and a relevant outgroup. Research on *naïve realism* (Ross & Ward, 1996) suggests that people tend to see their political attitudes and ideological positions as coming from a bottom–up evaluation of the relevant information. By contrast, opposing partisans—and to some extent—partisans on one's own side, are viewed as being more driven by ideology, and consequently

more likely to evaluate relevant information in a top–down manner. The end result is that people view others as having more extreme ideologies than their own, which can lead to what has been termed a false polarization in beliefs (Robinson, Keltner, Ward, & Ross, 1995).

This phenomenon has been demonstrated across a wide range of groups and issues in studies that have compared perceived and actual polarization. Pro-choice and pro-life participants overestimated their degree of difference on responses to abortion scenarios (Robinson et al., 1995). American liberals and conservatives perceived larger group differences in how much money each group would allocate to help the needy than was actually the case (Farwell & Weiner, 2000). Likewise, proponents and opponents of affirmative action perceived large differences between the two groups on issues such as abortion and immigration rights, despite the fact that the two groups did not differ on those issues (Sherman, Nelson, & Ross, 2003); finally, in terms of the populace, Fiorina, Abrams, and Pope (2005) present compelling evidence from the National Election Survey that people in the 'red states' and people in the 'blue states' do not differ on political and cultural attitudes to the extent that media reports suggest (see also Seyle & Newman, 2006).

Social identity researchers have also provided substantial evidence that group members often overestimate the difference between their own and other groups (see Hogg & Abrams, 1988). This insight goes back to Tajfel's accentuation principle and his focus on cognitive aspects of prejudice (e.g. Tajfel, 1959, 1969) and has also been demonstrated in more recent studies of intergroup differentiation (e.g. Jetten, Spears, & Postmes, 2004). In general, people may perceive intergroup polarization to the extent that the ingroup is an important source of self-definition that provides a social identity (Ellemers, Spears, & Doosje, 2002; Jetten et al., 2004). The very process of social categorization accentuates perceived intergroup differences, and people are further motivated to differentiate the ingroup from the outgroup on dimensions that evaluatively favor the ingroup (Tajfel & Turner, 1979; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987; see also Hogg, 2003, 2006; Hogg & Abrams, 1988).

Uncertainty, entitativity, and perceived polarization

Our central hypothesis is that subjective uncertainty, particularly about or relating to the self, causes people to reconcile ingroup perceptions (in particular, how entitative people see their groups) and intergroup perceptions (in particular, the amount of perceived polarization between the ingroup and outgroup). Under conditions of uncertainty people tightly link ingroup and intergroup perceptions; to the extent they see their group as being a distinct entity, they also polarize it from the outgroup. In contrast, under conditions of certainty —and therefore lacking the motivation to accentuate the clarity of the representation of relevant social groups—people may judge ingroup entitativity independently of intergroup polarization. Reconciling ingroup and intergroup perceptions in this manner helps people accentuate the clarity of their social representations, which they are particularly apt to do under uncertainty (Hogg, 2000, 2007).

In some cases, less entitative groups (e.g. two lines at a movie) are not seen as polarized, and more entitative groups (e.g. two nations at war) are seen as highly polarized. Under conditions of relative certainty, however, people may be quite able to conceive of their group as being highly entitative but not very polarized from an outgroup (e.g. two sports teams in competition—each a distinct entity, but neither of which are necessarily seen as polarized in terms of their attitudes) or as being not very entitative but relatively highly polarized (e.g. people from Boston and people from New York—two groups that are not clear entities, but nevertheless could be seen as highly polarized). In contrast, under conditions of relative uncertainty, we argue that people are motivated to make consistent judgments of entitativity and polarization; when the ingroup is seen as a distinct entity, it will also be seen as highly polarized from the outgroup, and when the ingroup is not seen as

a distinct entity, it will be seen as less polarized from the outgroup. These consistent ingroup and intergroup perceptions can help individuals accentuate the clarity of their social worlds.

Our notion of accentuation of clarity has a precedent in work by Tajfel on categorization-based perceptual accentuation (e.g. Tajfel, 1959; Tajfel & Wilkes, 1963). According to Tajfel's accentuation principle, categorization of physical or social objects produces a perceptual accentuation of similarities within, and differences between, the categories on dimensions believed to be associated with the categorization. The effect was invoked by Tajfel (1969) to help explain the cognitive basis of stereotyping and prejudice, and became a plank in the initial development of the social identity theory of intergroup relations (Tajfel, 1972). More recent research has suggested that the accentuation effect, in the judgment of physical stimuli such as line length, may be strengthened when the judgment task is difficult and people are presumably less certain of their judgments (Corneille, Klein, Lambert, & Judd, 2002; Lambert, Hogg, Klein, Azzi, & Svensson, 2004). Our analysis extends this research by focusing on social perception, not physical perception, and on self-uncertainty rather than task difficulty or perceptual uncertainty. Moreover, we examine the general question of whether people coordinate their ingroup and intergroup perceptions under conditions of uncertainty.

Summary and predictions

To sum up, we predict that, when feeling uncertain, people will coordinate their ingroup and intergroup perceptions. If the ingroup is perceived as highly entitative, it will also be seen as very different from the outgroup, and vice versa. In contrast, when people are feeling relatively certain, they will be able to make such judgments independently.

In this article we report on two field studies of non-student adults to examine this general hypothesis. Study 1 focused on American striking grocery store employees and Study 2 on political partisans in the United States. Subjective uncertainty was measured in Study 1 and manipulated in Study 2. In both studies we then measured perceptions of ingroup entitativity, and participants' beliefs about where the ingroup and the outgroup fell on relevant social and political attitude dimensions.

Study 1

To examine the impact of uncertainty on the coordination of ingroup entitativity and perceived intergroup polarization, we first conducted a field study with a sample of people with a heightened potential for personal uncertainty: striking grocery store employees. The striking grocery store employees were actually locked out by management during contentious negotiations with the union over benefits. The strikers were carrying picket signs and were encouraging replacement workers and potential shoppers not to cross the pickets lines when they were recruited to participate in our study. (For discussions of the California supermarket strike, see Greenberg, 2004 and Peltz, Fulmer, & White, 2004). We asked the striking employees questions about their feelings about the future, their perceptions of their own group, and their perceptions of a salient outgroup—non-union grocery store employees (also known as replacement workers). We picked replacement workers as the outgroup because: (1) they were a salient outgroup, having to cross the combative picket lines on a daily basis; and (2) we thought it likely that the two groups would not have strong ideological differences, in actuality, but that the strikers would perceive them as such. Unfortunately, we were denied access to the replacement workers (by the managers of the grocery stores) and so were not able to obtain data from them to assess perceived versus actual polarization.

Overall, we were interested in the extent to which participants coordinated their perceptions of the ingroup and the amount of polarization they perceived between the ingroup (their fellow strikers) and the outgroup (the replacement workers), on the issues of health care benefits and the perceived fairness of senior management (those negotiating with the striking union and employing the replacement workers).

We predicted that this perception of polarization would covary with ingroup entitativity, but only for participants who were feeling relatively uncertain about their future.

Method

Participants Sixty-eight picketing grocery store employees (40 females, 23 males, 5 did not report; median age of 31.5 years; ethnicity: 38 whites, 20 Latinos/Latinas, 10 other/missing) filled out a survey for $5.00 cash. Participants were recruited from nine different grocery stores (three separate chains) while on the picket line in Southern California.

Procedure Striking employees were approached and asked if they would be willing to fill out a short survey about their experiences and attitudes for $5.00 cash. Those who agreed were given written informed consent along with the survey to complete. Due to time constraints, we assessed our constructs with single-item measures.

Uncertainty Participants were first asked how certain they felt about their future (1 = *very certain*, 9 = *very uncertain*). Thus, higher numbers signified greater uncertainty.

Entitativity Participants were next asked how much of a group they thought striking grocery store employees were (1 = *not very much of a group*, 9 = *very much of a group*), a straightforward and direct measure of entitativity (see Hamilton et al., 2004; Lickel et al., 2000).

Perceived intergroup polarization Participants were then asked to report how their own group (the striking grocery store employees) and the outgroup (the replacement workers) felt about health care benefits and upper management. Specifically, participants indicated separately how much they thought the group of striking grocery store employees and the group of replacement workers each supported health care benefits (1 = *do not support health care benefits for union employees*, 9 = *do support health care benefits for union employees*). Participants also indicated how much they thought the two groups each believed that upper management was fair (1 = *think upper management is fair*, 9 = *think upper management is unfair*). Thus, on both scales, higher numbers indicate the pro-union position.

Perceived polarization on support for health care benefits was computed by subtracting perceived support for healthcare benefits of the replacement workers (the outgroup) from perceived support for healthcare of the strikers (ingroup)—thus higher numbers signify greater perceptions of polarization. Perceived polarization on beliefs about upper management was computed by subtracting perceived beliefs of the replacement workers from perceived beliefs of the strikers; again, higher (positive) numbers signify greater perceptions of polarization. These two measures correlated with each other ($r = .28$, $p = .03$) and were averaged to produce one perceived polarization score.

Finally, participants provided demographic information before being paid, thanked, and debriefed.

Results

Descriptives Overall, participants felt moderately uncertain about their future ($M = 3.85$, $SD = 2.58$), and that the group of striking grocery store workers was very much a group ($M = 7.61$, $SD = 1.70$; this perception was related to feelings of uncertainty, $r = .28$, $p = .02$). Participants also perceived large attitudinal differences between themselves and the replacement workers. Overall, participants believed that the ingroup (strikers, $M = 8.10$, $SD = 2.14$) was much more in support of health care benefits for employees than was the outgroup (replacement workers; $M = 2.56$, $SD = 2.26$; $F(1, 62) = 183.38$, $p < .001$). Likewise, the strikers perceived that the ingroup thought upper management was much less fair (strikers; $M = 7.45$, $SD = 2.56$) than the outgroup did (replacement workers; $M = 1.81$, $SD = 2.15$), $F(1, 62) = 58.29$, $p < .001$. Thus, overall, participants perceived large differences between the two groups on the two issues.

The measures of uncertainty about the future and ingroup entitativity were not normally distributed. Because both variables were skewed towards the left, we transformed the data by squaring each variable prior to analysis.

Relations among uncertainty, ingroup entitativity, and perceived intergroup polarization To investigate the hypothesis that strikers would perceive intergroup polarization to the extent that they perceived their ingroup to be entitative, but only when they were feeling uncertain, we conducted a moderated regression analysis, with predictors being perceptions of future uncertainty (squared and then centered) and ingroup entitativity (squared and then centered) and their multiplied interaction term. This analysis allows us to investigate the relation between ingroup entitativity and perceived polarization at different levels of uncertainty. Although there was no main effect of future uncertainty (squared), $\beta = .18$, $t(58) = 1.44$, $p = .17$ or entitativity (squared), $\beta = .22$, $t(58) = 1.72$, $p = .09$, there was a significant interaction between uncertainty and entitativity, $t(57) = -2.11$, $p = .04$; Step 2: $\Delta R^2 = .07$; model $F(3, 57) = 3.66$, $p = .02$). The simple slopes for this interaction, plotted at one standard deviation above and below the mean on future uncertainty and perceived entitativity, are shown in Figure 1 (note that predictors are not squared in this figure, although squared predictors were used to compute simple slopes).

As predicted, people who felt relatively uncertain about their future had a strong positive association between the perceived entitativity of the ingroup and the perceived polarization between the ingroup and the outgroup ($\beta = .37$, $t(57) = 2.59$, $p = .01$). Strikers who saw their ingroup as being *not* a distinct entity polarized much less than strikers who saw their ingroup as very much a distinct entity. However, for people who felt relatively certain about their future, there was no significant association between ingroup entitativity and perceived polarization ($\beta = -.03$, $t(57) = -0.17$, $p = .87$). In other words, when uncertain, participants made intergroup judgments that were consistent with their ingroup perceptions. Such consistency did not occur when participants felt certain.

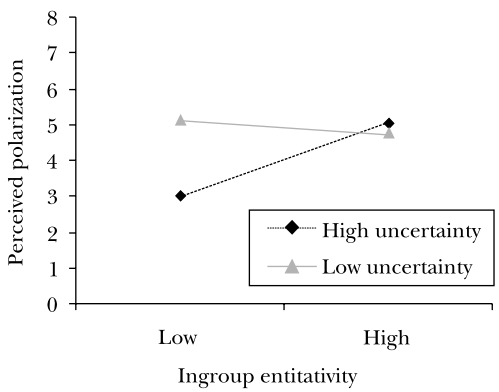

Figure 1. Perceived intergroup polarization as a function of subjective future uncertainty and ingroup entitativity (Study 1).

In summary, Study 1 found that to the extent that striking grocery store employees were uncertain about their future, they coordinated their perceptions of the entitativity of the ingroup with their perceptions of the extent to which the ingroup was polarized on key issues from the outgroup. For those who were relatively certain about their future, perceptions of ingroup entitativity and polarization were unrelated.

Study 2

Study 2 was conducted to replicate and extend the findings of Study 1. Foremost, in Study 2 we experimentally manipulated feelings of personal uncertainty using a priming procedure. Doing so allowed for an examination of the causal role of feelings of uncertainty in the relation between ingroup entitativity and perceptions of intergroup polarization. Additionally, we shifted from studying a single group in an extreme situation (strikers), and their perceptions of the ingroup and outgroup, to studying two opposing groups (Republicans and Democrats) and their perceptions of one another. (It may have been because the strikers were in such an extreme situation that the variables were skewed in Study 1). Finally, we collected a more stable perception of intergroup polarization, investigating differences in support for affirmative action, abortion rights, and the war in Iraq (see also Sherman et al., 2003).

Beyond these methodological considerations, in Study 2 we attempted to refine two of our theoretical constructs: uncertainty and ingroup entitativity. Although participants reported on

their uncertainty in Study 1, it is likely that they were also somewhat personally threatened by the strike and its impact on their future, and that threat may have entered into their assessment of personal uncertainty. In Study 2, we attempted to manipulate uncertainty more cleanly by asking participants to focus on the three things in their life that they were most uncertain about (or most certain about). Furthermore, we had coders assess the extent to which the manipulation induced uncertainty versus threat.

In Study 2, we also examined which aspect of ingroup perception was most linked to intergroup perceptions. We included once again a measure of the extent to which members saw their group as a group. This measure assesses the extent to which there exists *good continuation* (Campbell, 1958), that is, whether the ingroup can be discriminated from the outgroup and whether the boundaries between the two are rather impermeable. We also examined the perception of ingroup similarity, that is, the similarity of attitudes within a group.

We claim that ingroup entitativity, the extent to which the group is seen as a group, is a key aspect of knowledge about the ingroup because of the epistemic function it serves (Correll & Park, 2005). The extent to which an ingroup is an entity conveys information to people about whether their group possesses distinctive and consensual attributes that are relatively unambiguous, and consequently it may be particularly strongly linked to assessments of the relative positions (and polarization) between groups. By contrast, similarity within a group need not imply that strong boundaries exist between groups (Crump, Hamilton, Sherman, & Thakkar, 2008). In Study 2, we examined whether entitativity or perceived ingroup similarity is a more central ingroup correlate of intergroup judgments under uncertainty.

In this study, participants—registered voters drawn from the community—were first asked to think about, and list, three aspects of their life that they felt most uncertain (versus certain) about. Next, they reported their perceptions of the two political parties' cohesiveness and support for issues. Once again, our prediction was that perceptions of polarization would be associated with perceptions of ingroup entitativity, but only when participants were made to feel uncertain.

Method

Participants Sixty participants were recruited in a popular Southern California shopping district (26 females, 34 males; median age of 38 years; ethnicity: 47 whites, 2 Latinos/Latinas, 5 Asians, 6 other/missing; 42 Democrats, 17 Republicans, 1 other).

Procedure Respondents were approached by research assistants in a shopping area in Southern California and were asked if they were registered voters. People who intended to vote and agreed to participate were given the survey to complete.

Manipulation of uncertainty First, participants were asked to 'Think about significant aspects of your life that you feel uncertain (versus certain) about. List the three things that you feel most uncertain (vs. certain) about.' This priming procedure has been validated in previous research (Hogg et al., 2007) as effectively instantiating states of certainty versus uncertainty about the self.[1]

Party support Next, participants responded to the prompt, 'On a two-party preferred basis, which of the major American parties do you support?'. Participants selected Democratic or Republican.

Entitativity and similarity Participants assessed how much of a group they thought people who consider themselves Republicans (and Democrats) were (1 = *not at all a group*, 9 = *very much a group*) and how similar people who consider themselves Republicans (and Democrats) were to each other (1 = *not at all similar*, 9 = *very much similar*).

Perceived intergroup polarization Next, participants responded to the questions 'Where do you think Republicans stand on the following issues?' and 'Where do you think Democrats stand on the following issues?'. They responded using

nine-point scales, with higher numbers indicating more support for the liberal position (in favor of affirmative action, pro-choice, and against the war). Perceived Republican ratings were subtracted from the perceived Democratic ratings for each issue separately (higher numbers indicated greater perceived polarization), and the three difference scores were averaged to produce a measure of perceived polarization ($\alpha = .69$).

Finally, participants reported demographic information before being paid, thanked, and debriefed.

Coding of open-ended responses Two coders rated the open-ended responses to the certainty/uncertainty prompt on two dimensions: uncertainty and threat. The coders, unaware of participants' condition, gave an overall rating based on the three responses as to how uncertain the responses were (1 = *very certain*, 5 = *very uncertain*) and how threatening the responses were (1 = *not at all threatening*, 5 = *very threatening*). The coders had high reliability ($\alpha = .75$ for ratings of uncertainty, $\alpha = .79$ for ratings of threat), and so the scores were averaged.

Results

Descriptives and preliminary analyses Participants' perceived entitativity (overall $M = 5.68$, $SD = 1.98$) did not differ by uncertainty condition, $F(1, 57) = 2.42$, $p = .13$, or political party, $F(1, 57) = 2.40$, $p = .13$.[2] Perceived similarity of the ingroup (overall $M = 5.39$, $SD = 2.04$) did not differ by uncertainty condition, $F(1, 57) = .09$, $p = .77$, or political party, $F(1, 57) = 2.29$, $p = .14$. Both of these variables were normally distributed, and were significantly correlated with each other, $r = .36$, $p = .005$.

To examine whether the manipulation led people to focus more on uncertain or on threatening aspects of their life, we conducted a mixed model ANOVA where coders' ratings of threat and uncertainty were repeated measures and certainty condition was the between-subjects factor. Although the constructs were related (they were correlated, $r\ (58) = .53$, $p < .001$), there was a significant interaction between condition and type of measure, $F(1, 56) = 18.16$, $p < .001$. Univariate ANOVAs indicate that the manipulation exerted much stronger effects on uncertainty (certainty $M = 1.80$, $SD = .64$; uncertainty $M = 3.20$, $SD = .80$, $F(1, 56) = 54.60$, $p < .001$) than on threat (certainty $M = 1.60$, SD = .84; uncertainty $M = 2.11$, SD = .80, $F(1, 56) = 5.58$, $p = .02$). Indeed, inspection of the qualitative responses suggests that in the *certain* condition, some participants wrote about very threatening things (e.g. 'death is inevitable'). Thus, although threat and uncertainty were related, we are confident that our manipulation primarily induced feelings of uncertainty, rather than threat.

Combining the three attitude measures (abortion, affirmative action, and the war in Iraq), we found that participants perceived that the Democratic Party favored the more liberal position ($M = 6.52$, $SD = 1.46$) and the Republican Party the more conservative position ($M = 3.56$, $SD = 1.48$), repeated measures $F(1, 53) = 40.85$, $p < .001$. These perceived positions of the Republican and Democratic parties were not qualified by which party the participants favored, $F(1, 53) = 1.95$, $p = .17$, or by uncertainty condition $F(1, 53) = .57$, $p = .45$, or by the interaction of uncertainty condition and political party, $F(1, 53) = .96$, $p = .33$.

Relation among uncertainty, ingroup entitativity, and perceived intergroup polarization Our key prediction was that participants who were made to feel uncertain would coordinate their perceptions of ingroup entitativity and attitude polarization. To examine this, we conducted moderated regression analyses using uncertainty condition (0 = uncertain, 1 = certain), ingroup entitativity, and their interaction as predictors of perceived polarization.

At Step 1, neither uncertainty ($\beta = .03$, $t(54) = .18$, $p = .86$) nor ingroup entitativity ($\beta = .12$, $t(54) = .86$, $p = .40$) predicted a significant amount of variance in polarization scores; at Step 1, $R^2 = .01$, $F(2, 54) = .37$, *ns*. However, as predicted, the interaction between uncertainty and ingroup entitativity did ($\beta = -.33$, $t(53) = -2.60$, $p = .01$; Step 2: $\Delta R^2 = .11$; model $F(3, 53) = 2.52$, $p = .07$).

Figure 2 depicts simple slopes of ingroup entitativity predicting perceived polarization by uncertainty condition (plotted at +/−1 SD

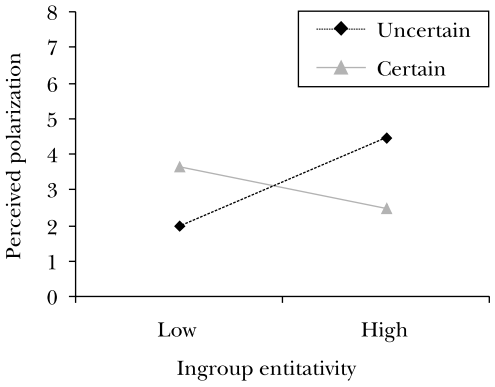

Figure 2. Perceived intergroup polarization as a function of uncertainty condition and ingroup entitativity (Study 2).

of entitativity scores). As predicted, and consistent with Study 1, uncertain participants had a strong positive association between the perceived entitativity of the ingroup and the perceived polarization between the ingroup and the outgroup ($\beta = .47$, $t(53) = 2.49$, $p = .02$), but there was no significant association between ingroup entitativity and perceived polarization in the certainty condition ($\beta = -.21$, $t(53) = -1.17$, $p = .25$).[3] Thus, participants' perceived intergroup polarization covaried with their perception of ingroup entitativity only when they felt uncertain.

We conducted the same analysis, but with perceived ingroup similarity and the interaction between uncertainty condition and similarity as predictors of perceived polarization. The total amount of variance predicted was not significant, $R^2 = .01$, $F(3, 53) = .19$, $p = .90$, with no interaction between similarity and uncertainty condition, $t(53) = -.75$, $p = .46$. In sum, it appears that under uncertainty, people were more apt to link their judgments of the perceived entitativity of the group with intergroup polarization, but they did not link the perceived similarity of the group with intergroup polarization.

Discussion

In Study 2, participants who were placed in a state of elevated uncertainty polarized the ingroup and the outgroup to the extent they saw the ingroup as being highly entitative. When participants were placed in a state of reduced uncertainty, there was no relationship between their perceptions of their group's entitativity and the extent to which they saw Republicans and Democrats as being highly polarized. These findings are in line with our hypotheses, and consistent with the results of Study 1. Moreover, because uncertainty was manipulated as opposed to measured, we can make stronger claims about the direction of the effect. In response to uncertainty, people treat the entitativity of their group and the extent to which their group differs from the opposing group on key issues as overlapping conceptual constructs. When people are more certain, they treat these two aspects of group membership as more distinct.

General discussion

We conducted two studies, the first using a correlational design with striking grocery store workers, the second using an experimental design with Republicans and Democrats. Across both studies we found that, when people were uncertain, they accentuated group clarity by reconciling ingroup and intergroup perceptions. To the extent they saw their group as being highly entitative, they polarized the ingroup from the outgroup. When people were more certain, they were able to dissociate these two perceptions: ingroup entitativity and group polarization were unrelated.

Two key theoretical questions are raised by these findings: (1) Why does uncertainty lead to a greater association between ingroup and intergroup perceptions?; and (2) What is the causal sequence by which uncertainty leads to the coordination between perceptions of ingroup entitativity and intergroup polarization?

Why and how does uncertainty lead to reconciling ingroup and intergroup perceptions?

Research on uncertainty-identity theory shows that uncertainty, particularly uncertainty about or related to self, can motivate group identification and associated group and intergroup processes and perceptions (Hogg, 2007). When people are uncertain, particularly about themselves,

they are likely to consider relevant information carefully and deliberatively in order to make judgments related to themselves as group members and to the groups involved in the intergroup context.

Although we can only speculate as to the causal sequence whereby one links ingroup and intergroup perceptions, our interpretation of the present findings is that, when people are feeling more uncertain, they may look to what they know most about their ingroup, and use that information as a basis for making internally consistent judgments about intergroup differences. When people are feeling more certain, they do not need to refer to the ingroup to know how to act, think, or feel, nor are they as motivated to arrive at careful, reasoned, and internally consistent judgments.

Perceiving groups as polarized requires a social comparison of the ingroup and the outgroup. When uncertain, people may base their intergroup polarization judgments on something that they presumably have greater knowledge about: the ingroup. That is, they may call to mind what is known about the ingroup, and use that information to make internally consistent judgments. When certain, people may be less motivated to make internally consistent judgments, and hence, perceived polarization is unrelated to ingroup judgments, but rather, may be more driven by a top–down evaluation of how the issues flow from a particular ideology (Ross & Ward, 1996).

In an intergroup context one's social identity is highly salient, and therefore it is likely that people will make intergroup judgments based on what they know about their ingroups (Robbins & Krueger, 2005). Moreover, prior research has shown that motivational factors can affect the extent to which people evaluate the self and the group independently, or use the self as an anchor in making judgments about their groups. One set of studies showed that evaluations of the group were typically anchored on the self; however, when people completed a self-affirmation, this motivated consistency was eliminated (Sherman & Kim, 2005; see also Cohen et al., 2007). Thus, self-uncertainty may have been the motivational trigger that set this ingroup–intergroup anchoring into place.

Given that the relationship between ingroup entitativity and perceived intergroup polarization was correlational in the present set of studies, an alternative explanation is that people inferred how entitative their ingroup was from an assessment of how polarized the ingroup and the outgroup were on the various issues. However, we suspect that people first make ingroup inferences and then polarization inferences, for two main reasons. First, it is much more cognitively challenging to accentuate differences between categories when the categories themselves are fuzzy and overlapping than it is when the categories are distinct entities in the first place. That is, only after people have determined whether or not the ingroup is a distinct entity can they properly assess the magnitude of intergroup attitudinal difference.

The second reason is that the ingroup is a much more immediate and important source of self-information than is the outgroup (e.g. Yzerbyt, Castano, Leyens, & Paladino, 2000), and thus, under self-uncertainty, people first conceptually consolidate the ingroup and their position within it before assessing intergroup differences (Hogg, 2007). However, the process may be reciprocal in that perceptions of intergroup polarization may subsequently feed back into ingroup perceptions. That is, perceptions of polarized groups will probably reinforce the perceptions of the groups as distinct entities. Examining this reciprocal relationship between ingroup and intergroup perceptions is an exciting area for future research.

Theoretical implications and future questions

In the present set of studies, ingroup entitativity proved to be a uniquely useful predictor in determining perceived polarization under uncertainty. Consistent with recent models of ingroup utility (Correll & Park, 2005), it appears as though the epistemic functions of knowing that one's group is a coherent entity may allow an individual to use it as a basis for making

intergroup comparisons (see also, Ip et al., 2006). The finding from Study 2, demonstrating that similarity did not predict polarization whereas entitativity did, is consistent with recent research by Crump et al. (2008) on the distinctions between similarity and entitativity. Across group types, entitativity and similarity have been found to be related but distinct concepts. Specifically, their research found that, although they share variance, entitativity and similarity judgments are made differently about the ingroup and the outgroup. Whereas entitativity is a concept very strongly linked to the ingroup, similarity is a concept more closely linked to the outgroup. Here we extend those findings by showing how entitativity and similarity judgments about the ingroup, although again correlated, relate differently to perceived polarization under uncertainty.

However, one limitation of both studies is that we assessed the entitativity of the ingroup with a single-item measure. Future research might profit by examining exactly which aspects of entitativity participants anchor on under uncertainty (see for example, Denson, Lickel, Curtis, Stenstrom, & Ames, 2006; Haslam et al., 2000; Ip et al., 2006). We might speculate that common goals, and more broadly shared values, attitudes and customs, are particularly important because they provide an immediate and directly self-relevant prescription of what the group is.

Implications for political polarization in America

The findings in this paper have implications for understanding the factors that promote, and could potentially reduce, political polarization in America. At the time of writing, the issues that Americans are most concerned about—the economy, the war in Iraq, health care, and global warming (Pew Research Center for the People and the Press, 2008)—all relate deeply to their uncertainty about their futures, and the future of the world. When this uncertainty is coupled with heightened entitativity, our research suggests, people are more likely to polarize the two parties; and in recent years, there have been suggestions that the two major American parties, Republicans and Democrats, are increasingly likely to be viewed as distinct entities. During the 2004 Republican Convention, for example, the most popular venue to watch it was the partisan conservative Fox News Network (Jensen, 2004), and the Pew Research Center for the People and the Press presents data that people are selecting more partisan sources to receive their news (2004), which may reinforce the perception that each group is a distinct entity.

Thus, it seems possible that the perceived political polarization in the United States between the 'red' states and the 'blue' states, the purported deep and fundamental chasm between Democratic-leaning and Republican-leaning states (Davis, 2005; Frank, 2004; Seyle & Newman, 2006), could be a function of increased feelings of uncertainty coupled with greater perceptions of ingroup entitativity. If this is the case, then, it may be possible to reduce political polarization under uncertainty by breaking down the extent to which the parties are seen as distinct entities. Consider, for example, the recent comments by presidential candidate Barack Obama (2008; quoted in Brown, 2008), on the times in history when the political parties were more fluid and not seen as such distinct entities:

> [. . .] back in the 1980s, Ronald Reagan was able to tap into the discontent of the American people. There were Reagan Democrats . . . we need to tap into the discontent of Republicans. I want some Obama Republicans. I want 'Obamacans'.

Whether this is a successful political strategy, of course, remains to be seen, but based on our findings, we suggest that in the current American social and political climate, prevailing uncertainty could be leading people to coordinate their ingroup and intergroup perceptions. The reduction of perceived polarization, then, may depend on Americans seeing the two parties as fluid groups from which an individual can freely move.

Notes

1. We conducted a pilot test of this manipulation in a separate sample of 129 undergraduates at a southern California university. In this pilot test, there were three conditions: the uncertainty prime condition, the certainty prime condition, and no prime. Participants then completed some unrelated questions, and were asked to indicate 'how uncertain they felt about their future (1 *very certain*, 9 *very uncertain*)'. A one-way ANOVA revealed that feelings of uncertainty varied by priming condition, $F(2, 123) = 4.29$, $p = .02$. Post-hoc tests (using least significant difference) showed that participants receiving the uncertainty prime felt significantly more uncertain ($M = 6.15$, $SD = 1.99$) than participants in the certain prime condition ($M = 4.83$, $SD = 2.06$; $p = .01$). Participants' feelings of uncertainty in the no prime condition did not differ from either experimental condition, falling near the midpoint of the scale ($M = 5.44$, $SD = 2.37$, *ns*). Thus, this manipulation successfully induces feelings of certainty and uncertainty.
2. There was also a marginally significant interaction between political party and uncertainty condition on perceived entitativity of the ingroup, $F(1, 55) = 3.18$, $p = .08$. Whereas Democrats did not differ between the certainty ($M = 5.92$, $SD = .39$) and uncertainty ($M = 5.88$, $SD = .46$) conditions, Republicans saw their group as more entitative when they were in the certainty condition ($M = 6.67$, $SD = .78$) than the uncertainty condition ($M = 4.42$, $SD = .55$). We can speculate on the cause of this interaction. First, although it was not a central feature of the paper, we did measure how important being in the group (of Republicans or Democrats) was to participants, and for the Republicans ($M = 3.22$, $SD = 2.62$), it was much less important than for the Democrats ($M = 4.98$, $SD = 2.70$), $F(1, 55) = 5.59$, $p = .02$. Second, it is possible that the uncertainty manipulation was more bothersome for Republicans, as it has been theorized that they have a greater need for closure (Jost, Glaser, Kruglanski, & Sullaway, 2003). So, it may be that under this more aversive uncertainty, Republicans may have wanted to distance themselves from this relatively less important group by reducing the perceived entitativity of their group, which would be consistent with uncertainty-identity theory (Hogg, 2007). However, it is important to note that when we enter political party as a predictor as well as the interaction between party and uncertainty condition in subsequent regression analyses, the uncertainty X entitativity interaction remains significant.
3. We also conducted mediational analyses (Baron & Kenny, 1986) to see whether the coders' ratings of uncertainty or threat would mediate the interactive effect of manipulated uncertainty and entitativity on perceived polarization. However, for both uncertainty and threat, the second step of mediation was not successful. That is, interaction terms created between ingroup entitativity and the continuous measures of either threat or uncertainty did not significantly predict perceived polarization ($\beta = .14$, $p = .31$ for uncertainty, $\beta = .19$, $p = .16$ for threat). It appears that the external ratings by coders, although sensitive enough to detect between-condition differences, were not sufficiently sensitive as to detect the meaningful differences of how uncertain participants felt within condition. This may not be surprising, however, as subjective uncertainty or threat likely resides somewhere within the participant's experience that is not easily translated onto paper and is therefore difficult to have precisely and objectively evaluated by external coders.

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