Uncertainty, entitativity, and group identification

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Abstract

Two studies examined the effects of self-uncertainty and ingroup entitativity on group identification. From uncertainty reduction theory (Hogg, 2000), it was hypothesized that people would identify most strongly with their group if they felt self-conceptually uncertain and the group was highly entitative. Study One was a field experiment ($N =$ 114) in which the perceived entitativity of participants' political party was measured, and self-uncertainty was primed (high vs. low). Study Two was a laboratory experiment ($N =$ 89) with ad hoc non-interactive groups. Uncertainty was primed as in Study One, but perceived entitativity was manipulated. In both cases the dependent variable was a multi-item measure of group identification. The hypothesis was fully supported in both studies – participants identified more strongly when they were uncertain and the group was highly entitative. Implications of this research for the role of uncertainty and social identity in extremism, orthodoxy, and ideological belief systems are discussed.

Keywords: Social identity, uncertainty reduction, entitativity, intergroup behavior, extremism

Groups serve many functions, and people affiliate for many reasons (Brown, 2000). One function and reason for affiliation is provision of an identity and associated consensual belief system that informs us who we are and how we should view and treat others, and how others will view and treat us. This identity function of groups has been elaborated by the social identity perspective (e.g., Tajfel & Turner, 1979; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987; see Hogg, 2003, 2005a), which defines the group cognitively as three or more people who share the same social identity and views group identification as a feeling of belonging, a definition and evaluation of self in terms of shared ingroup attributes, and a belief that the group is central to one's sense of self (e.g., Cameron, 2004). Identification generates group behaviors; for example ethnocentrism, conformity, cohesion, stereotyping, intergroup competition and discrimination (Hogg & Abrams, 1988).

Why and when do people identify with groups, and what properties of groups facilitate or strengthen identification? From a social identity perspective, identification may be motivated by self-enhancement (Tajfel & Turner, 1979), optimal distinctiveness (Brewer, 1991), and uncertainty reduction. In this article we focus on the latter – the motivational role of subjective uncertainty reduction in group identification, as described by uncertainty reduction theory (Hogg, 2000). We test the proposition that uncertainty, particularly self-conceptual uncertainty, motivates identification, but that people prefer to identify with groups that are clearly defined and distinctive entities.

Although some uncertainty in our lives may be exciting (we like surprises), too much is uncomfortable, particularly if it is uncertainty about oneself in social context or

about things that directly matter to or reflect on self-conception. Generally, people strive to reduce feelings of uncertainty about themselves, their social world and their place within it – they like to know who they are and how to behave, and who others are and how they might behave. Being properly located in this way renders the social world and one's place within it relatively predictable and allows one to plan effective action, avoid harm, know who to trust, and so forth.

Group identification may be a particularly efficient and immediate way to reduce or fend off this kind of self-conceptual uncertainty. From a social identity perspective, group identification is underpinned by self-categorization (Turner et al., 1987), which is associated with a wider social categorization process that brings into play group prototypes that describe how people (including oneself) will and ought to behave and interact with one another. Social categorization of self and others generates a sense of ingroup identification and belonging, and regulates perception, inference, feelings, behavior and interaction to conform to prototype-based knowledge one has about one's own group and relevant outgroups. Such prototypes are relatively consensual ('we' agree 'we' are like this, 'they' are like that) – thus, one's world view and self-concept are validated. Social categorization renders one's own and others' behavior predictable, and allows one to avoid harm, plan effective action, and know how one should feel and behave.

The social psychology literature is replete with uncertainty-related motives (Kruglanski & Webster, 1996; Sedikides & Strube, 1995; Sorrentino & Roney, 1999). However, uncertainty reduction theory has at least two features that differentiate it from related constructs: (a) Uncertainty is not an invariant property of the person, but of the

immediate or more enduring social context in which people find themselves, and (b) uncertainty is addressed through the process of self-categorization and group identification, not merely by making social comparisons – self-conception is centrally involved.

The original and most basic prediction from uncertainty reduction theory was that people identify more strongly with groups when they are feeling uncertain – uncertain about themselves, their behavior, what is expected of them, and so forth. Merely being in a group, in the sense of having the attributes of a social category, may not be enough to produce identification – uncertainty may be required to trigger the process.

This prediction has been supported in a series of studies summarized by Hogg (2000). The general paradigm for this research uses minimal groups in which (a) contextual subjective uncertainty and/or type of uncertainty is manipulated, (b) participants are explicitly categorized or not (or category salience is manipulated), and/or (c) prototypical properties of the category are manipulated. The key dependent measures are self-reported group identification and behavioral measures of resource allocations. A number of experiments have shown that ingroup identification and intergroup discrimination only occur and occur significantly more when people are categorized under uncertainty than not categorized or categorized under reduced uncertainty (e.g., Grieve & Hogg, 1999).

Other similar experiments have shown that the effect can occur irrespective of how uncertainty is caused, but that it is strongest when the dimension of subjective uncertainty is important to self and when the social category is relevant to the dimension of uncertainty (e.g., Mullin & Hogg, 1998). There is also evidence that uncertainty-

induced identification can reduce uncertainty (e.g., Grieve & Hogg, 1999; Mullin &

Hogg, 1998), and that people who feel uncertain will identify even with a group that

mediates low status (Reid & Hogg, 2005). None of this research has directly manipulated

uncertainty about self. Rather, other dimensions of uncertainty have been manipulated

with the assumption that they affect self-uncertainty. Since, according to uncertainty

reduction theory, it is self-conceptual uncertainty that motivates group identification, one

aim of the studies reported here is to directly manipulate self-uncertainty.

A central issue remains unresolved. If you feel uncertain about yourself, what

properties of a group encourage you to identify or to identify more strongly? In an

extension of uncertainty reduction theory, Hogg (2004) proposes that group entitativity,

that property of a group, resting on clear boundaries, internal homogeneity, social

interaction, clear internal structure, common goals, and common fate, which makes a

group "groupy" (Campbell, 1958; Hamilton & Sherman, 1996), moderates the

relationship between self-uncertainty and identification. Groups vary in entitativity (e.g.,

Lickel, Hamilton, Wieczorkowska, Lewis, Sherman, & Uhles, 2000; Hamilton, Sherman,

& Rodgers, 2004), and under self-uncertainty, people prefer to identify with or identify

more strongly with high than low entitativity groups. The rationale for this is that

identification via self-categorization reduces uncertainty because self is governed by a

prototype that prescribes cognition, affect and behavior, and that prototypes that are

simple, clear, unambiguous, prescriptive, focused and consensual are more effective than

those that are vague, ambiguous, unfocused and dissensual. Clear prototypes, such as the

former, are more likely to be grounded in high than low entitativity groups.

The prediction that self-uncertainty and group entitativity interact to affect group identification has not yet been properly tested. Jetten, Hogg and Mullin (2000) report two minimal group studies where judgmental uncertainty and group homogeneity were manipulated, and group identification and intergroup perceptions were measured. The predicted interaction on identification was not found – there was only a main effect for uncertainty in Study 1. In addition, in Study 1, participants who were uncertain showed greater ingroup-outgroup stereotype differentiation when the ingroup was more homogeneous. It should be noted that (a) *self*-uncertainty was not manipulated, (b) stereotypic differentiation is a perceptual effect that is not the same as identification and belonging, and (c) ingroup homogeneity, a similarity perception, is not the same as ingroup entitativity, and may actually be the least important component of entitativity (e.g., Crump & Hamilton, 2004; Hamilton et al., 2004).

Entitativity is better investigated in a series of four studies by Castano, Yzerbyt and Bourguignon (2003), who manipulated different aspects of entitativity and measured identification with the European Union (EU). Entitativity increased identification but only, or more strongly, among those with less extreme attitudes towards the EU. Self-uncertainty was not measured or manipulated – it can only be speculated that those with less extreme attitudes may have been less self-conceptually uncertain. The main message of this research is that people identify more strongly with high entitativity groups (e.g., Castano, 2004; Yzerbyt, Castano, Leyens, & Paladrino, 2000) – which is consistent with Lickel et al.'s (2000) finding that ingroup entitativity perceptions were significantly correlated with reported importance of the group to self.

The two studies reported in the present article explicitly test the effect of self-uncertainty on group identification as a function of ingroup entitativity. In both studies we manipulated self-uncertainty (uncertainty about self has not been directly manipulated in previous tests of uncertainty reduction theory) and measured group identification. Study One was a field experiment in which we also measured perceptions of the entitativity of the political party that participants supported. Study Two was a laboratory experiment in which we manipulated perceptions of the entitativity of a non-interactive ad-hoc laboratory group that participants believed they were part of. We predicted an interaction between uncertainty and entitativity. Participants would identify most strongly when they felt uncertain and the group had high entitativity – that is, entitativity would moderate the effect of uncertainty on identification, and uncertainty would moderate the effect of entitativity on identification.

<div align="center">Study One</div>

In Study One we took advantage of a national election in Australia. To test the hypothesis above, we measured how much of an entity our participants felt the political party they supported was, primed them to feel uncertain or not about themselves, and measured how much they felt they identified with their party.

Method

Design and Participants

Participants were 66 male and 48 female undergraduates (N = 114) at a large Australian university (18- to 46-years, *M* = 21). They could only take part if they were eligible to vote (the voting age is 18), and they supported one of the two major political parties – 56 were Labor Party supporters, and 58 Liberal Party supporters (in Australia,

the Labor Party is liberal, the Liberal Party conservative). Participants were randomly allocated to the high or low uncertainty prime condition.

Procedure and Measures

A male/female research team approached students on campus and invited them to complete a questionnaire about student political attitudes – data were collected in May 2004 in anticipation of the October Australian federal election. If they agreed, they were told that only supporters of the Labor or Liberal parties were eligible to participate. Out of 159 participants who agreed to participate, 114 were eligible and were given the questionnaire to complete there and then.

The first question confirmed party affiliation. Participants were then asked to think about people who consider themselves supporters of their party, and were asked "how much of a group do you feel they are" (1 *not very much a group*, 9 *very much a group*). This was our measure of ingroup entitativity – in a single question it goes beyond only similarity, only homogeneity or only distinctiveness perceptions, and captures the essence of the broader construct of entitativity (e.g., Brewer & Harasty, 1996; Hamilton & Sherman, 1996).

Next, self-uncertainty was manipulated using a priming procedure. Participants were asked to spend a few moments thinking about those aspects of their life that made them feel uncertain (certain) about themselves, their lives and their future, and then to write in the spaces provided a few sentences about the three aspects that made them feel most uncertain (certain). Van den Bos (2001) and McGregor and colleagues (McGregor & Marigold, 2003; McGregor, Zanna, Holmes, & Spencer, 2001) have used a different but related procedure, in which participants focused on an unresolved personal dilemma,

to manipulate what they call personal uncertainty. McGregor et al. (2001) found no effect of their manipulation on state self-esteem.

Immediately after the uncertainty prime, participants answered nine questions, adapted from previous social identity research (e.g., Hains, Hogg, & Duck, 1997; Hogg & Hains, 1996, Hogg, Hains, & Mason, 1998), measuring how much they identified with their political party. These items focused on self-importance of and liking/familiarization for the party and its supporters, similarity and goodness of fit to the party, and identification, belonging and ties with the party (1 *not very much*, 9 *very much*). They formed a reliable group identification scale (_ = .93, *M* = 4.36, SD = 1.74).

After indicating their age and sex participants were thanked, offered chocolates in appreciation of their participation, and debriefed and probed for suspicions.

Results

Since Labor and Liberal party supporters did not differ on the two predictor variables of entitativity and uncertainty, nor on the dependent measure of identification, $F(1, 112) < 1.95$, $p > .165$, we did not incorporate party affiliation in the analyses.

The effectiveness of the self-uncertainty prime was confirmed in a pilot study (Footnote 1). However we also had two independent raters, from the same population as the participants, read what each participant had written in response to the uncertainty prime and indicate how certain or uncertain they felt that participant would have felt at the time (1 *certain*, 9 *uncertain*). Interrater reliability was significant ($r (111) = .25$, $p = .008$) so we averaged the raters' ratings. One-way ANOVA revealed a significant main effect for uncertainty – high uncertainty participants were rated as feeling more self-

uncertain ($M = 6.55$) than low uncertainty participants ($M = 3.72$), $F(1, 109) = 285.88$, p

$< .001$.

To test the experimental hypothesis a step-wise multiple regression with

uncertainty and entitativity (Step 1) and their interaction (Step 2) as predictors, was

performed on identification. Following Aiken and West (1991), predictors were centered

and simple slopes analyses conducted for the significant interaction.

The regression was significant at Step 1, $R^2 = .11$, $R^2_{adj} = .09$, $F(2, 109) = 6.38$, p

$= .002$. Entitativity was the only significant predictor, $\beta = .33$, $t = 3.74$, $p < .001$ –

identification increased with increasing entitativity. At Step 2 the interaction of

entitativity and uncertainty significantly improved prediction of identification, $R^2_{ch} = .05$,

$F_{ch}(1, 108) = 5.83$, $p = .017$, $\beta = .21$, $t = 2.42$, $p = .017$. Since uncertainty significantly

moderated the main effect of entitativity on identification, we examined and plotted the

simple slope of entitativity at low (one SD below the mean) and high (one SD above the

mean) levels of uncertainty (see Figure 1). Entitativity significantly increased

identification under high ($\beta = .55$, $t = 4.25$, $p < .001$) but not low uncertainty ($\beta = .12$, $t =$

0.96).

Simple slopes analyses with entitativity as the moderator revealed the slopes for

uncertainty to be non-significant at high ($\beta = .20$, $t = 1.60$) and low ($\beta = -.23$, $t = -1.81$, p

$= .073$) levels of group entitativity.

Discusssion

As predicted from uncertainty reduction theory, group identification was

influenced by the interaction of self-uncertainty, which was successfully manipulated,

and perceived political ingroup entitativity. Where self-uncertainty was high, people

identified more strongly with high than low entitativity groups. Where self-uncertainty
was low, there was no significant relationship between entitativity and identification.
Although the interaction supports our moderation hypotheses it should be noted that in
contrast to previous studies (see Hogg, 2000) uncertainty alone did not predict
identification - most likely because, in contrast to previous studies, we manipulated self-
uncertainty directly and used real groups and real beliefs about their entitativity.

Two strengths of this study are that we directly manipulated feelings of *self-*
uncertainty, which has not been done in previous tests of uncertainty reduction theory,
and we measured identification with "real" groups that people belonged to. The limitation
is that entitativity was measured, and may have associated with it other factors, apart
from entitativity beliefs, that influenced identification. This is addressed by Study Two -
a conceptual replication using a different paradigm to allow us to plausibly manipulate
perceived ingroup entitativity.

Study Two

Study Two adopted a computerized minimal group paradigm that has been used in
past research to make participants believe they are in a small discussion or task-oriented
group that does not interact face-to-face but communicates and exchanges information
via computer (e.g., Reid & Hogg, 2005). This allowed us to provide credible feedback
that their group was high or low in entitativity, prime them as in Study One to feel more
or less uncertain about themselves, and then measure how strongly they identified with
the group – using almost identical measures to Study One. As for Study One, we
predicted that identification would be strongest among participants who both felt
uncertain and believed that their group had high entitativity.

Method

Design and Participants

Participants were 39 male and 50 female undergraduates ($N = 89$) at a large Australian university (17- to 28-years, $M = 20.7$). They participated in what they believed was a computer-mediated group decision making experiment in exchange for A\$ 10 (US\$ 7), and were randomly assigned to conditions formed by the manipulation of two independent variables - self-uncertainty (low, high) and ingroup entitativity (low, high). The dependent variable was a multi-item group identification measure.

Procedure and Measures

Participants arrived at a lab that had eight cubicles equipped with computers. They were seated and led to believe that six to eight of the cubicles were occupied for the session, that the computers were interconnected, and that the experiment would be run via the computers. They expected to answer some questions and receive information about their group before participating in an interactive computer-mediated 'chat room' with the other members of their group – their group being those present at the session. The group's task was to evaluate, and make group decisions, about hypothetical job applicants.

After indicating their age and sex, participants completed a self-description and self-evaluation questionnaire, which had four sociability, five self-confidence and four self-esteem statements, taken from standard scales. This questionnaire was ostensibly to allow the experimenter to provide participants with information about their group. It served no other purpose in the experiment.

On completing the questions, participants waited for 60 seconds while the computer performed computations. The computer then presented results in the form of two summary statistics – an alpha-coefficient and a z-score. In the high entitativity conditions the values of alpha and z were .86 and 2.98, and in the low entitativity condition they were .41 and .95. While participants studied the feedback, the experimenter explained in detail what each statistic meant, and what it said about their group. High entitativity participants were told that members had responded very similarly to each other and that the group was very different to other groups that had taken part. Low entitativity participants were told that members had responded very differently to each other and that the group was very similar to other groups that had taken part.

To complement this homogeneity and distinctiveness dimension of the entitativity manipulation, the experimenter proceeded to prime participants about what their group was going to do, and how this was the best way to approach the group task. In the high entitativity condition they were told that the group was going to organize itself, via the 'chat room', with a clear division of labor, a leadership structure, and a set of agreed principles about how to approach the task. In the low entitativity condition they were told that the group members were going to introduce themselves to one another, via the 'chat room', but leave individuals to decide how they wanted to do the task themselves. In this way, the high entitativity group was well structured, with clear roles, and a distinct and shared prototype, whereas the low entitativity group was poorly structured, with unclear roles, and an indistinct and relatively unshared prototype.

Participants were now told that before the group task they would answer a few more questions about themselves, their group, and the upcoming task. First they

completed nine entitativity checks. They were asked how cohesive, organized, hierarchical, purposeful, structured, and clearly defined they felt their group was, how distinct it was from other groups, how similar members were to one another, and whether it had defined roles or functions (1 *not very much*, 9 *very much*). These nine items formed a reliable scale, _ = .91.

Next they were asked to spend a few moments thinking about those aspects of their life that made them feel certain (uncertain) about themselves, their lives and their future, and then to write in the spaces provided a few sentences about the three aspects that made them feel most uncertain. This is the same self-uncertainty manipulation as used in Study One. Immediately after the uncertainty manipulation participants completed eight group identification items (1 *not very much*, 9 *very much*), which were based on and almost identical to Study One. They formed a reliable group identification scale, _ = .94. The experiment was now concluded and participants were debriefed and probed for suspicions.

Results

Cells did not differ in sex composition; but, despite random allocation, there was a significant interaction of uncertainty and entitativity on participant age, $F(1, 85) = 13.58$, $p < .001$, $\_^2 = .14$; cell means ranged from 19.5 to 21.9 years. Because this is a meaningful age difference among Australian undergraduates (representing a difference between second and fourth year students) we conducted all analyses with age as a covariate (reported analyses did not change significantly if age was not a covariate).

Two way ANCOVA, with age as a covariate, on the composite entitativity check revealed a large and significant main effect for entitativity, $F(1, 84) = 129.22$, $p < .001$, $\_^2$

= .61 – participants in the high entitativity condition felt the group had higher entitativity than participants in the low entitativity condition (Ms = 6.13 and 3.77). No other effects were significant, $p > .500$.

The effectiveness of the uncertainty manipulation resides in the pilot study described in Footnote 1. However the two independent raters used to rate what participants had written in Study One performed the same rating task on what participants had written in Study Two. Interrater reliability was significant (r (89) = .63, $p < .001$) so we averaged their ratings. One-way ANOVA revealed a significant main effect for uncertainty – high uncertainty participants were rated as feeling more self-uncertain (M = 6.58) than low uncertainty participants (M = 3.40), $F(1, 87) = 272.12, p < .001$.

To test the experimental hypothesis, we conducted a two-way ANCOVA on identification. Participants identified more strongly under high (M = 5.79) than low (M = 4.33) uncertainty, $F(1, 84) = 31.43, p < .001, \eta^2 = .27$, and with high ($M$ = 5.85) than low (M = 4.27) entitativity groups, $F(1, 84) = 37.01, p < .001, \eta^2 = .31$. However, as predicted, these main effects were qualified by the predicted interaction between uncertainty and entitativity, $F(1, 84) = 8.05, p = .006, \eta^2 = .09$ (Footnote 2) – see Figure 2. High uncertainty participants in high entitativity groups identified significantly more strongly (M = 6.98) than low uncertainty participants in high entitativity groups (M = 4.72), $F(1, 84) = 35.10, p < .001, \eta^2 = .30$, and than high uncertainty participants in low entitativity groups (M = 4.61), $F(1, 84) = 42.33, p < .001, \eta^2 = .34$. Low uncertainty participants in low entitativity groups had a mean identification score of 3.93, which was not significantly affected by increased uncertainty ($F(1, 84) = 3.06, p = .084, \eta^2 = .04$), or by increased entitativity ($F(1, 84) = 3.91, p = .051, \eta^2 = .05$).

Discussion

Controlling for participant age, which differed between conditions, the effects of self-uncertainty and group entitativity (both cleanly and effectively manipulated) on the composite identification measure were exactly as predicted. Identification was strongest among uncertain participants in high entitativity groups – uncertainty increased identification but only when the group was high in entitativity, and participants identified more strongly with high than low entitativity groups but only when they were uncertain.

General Discussion

From a social identity perspective, one critical function of groups is to provide people with a social identity that evaluates and defines self in group prototypical terms, prescribes perception, affect and behavior, and structures social interaction. In this article we focus on subjective uncertainty reduction as a key motivation for group identification – identification buffers uncertainty, particularly about or related to self, precisely because social identity prescribes behavior, structures interaction, and so forth. Past research has shown that people are indeed more likely to identify, and to identify more strongly, with a group if they are feeling uncertain, particularly about things that are relevant to or reflect on self, and that identification can reduce uncertainty (see Hogg, 2000).

The present research tests a development of uncertainty reduction theory, which states that the effect of self-uncertainty on identification is moderated by perceived group entitativity (Hogg, 2004). When feeling uncertain about themselves in a particular context, people prefer to identify with, and identify more strongly with, groups that are more distinctive, more clearly structured, and associated with clearer prototypes. Such high entitativity groups may be more effective at reducing self-conceptual uncertainty,

and consequently people would be more likely to identify with them. We predicted that people would identify most strongly with a group when they felt uncertain and they believed the group had high entitativity.

This prediction was fully supported by the two experiments reported here - a field experiment where we measured how entitative participants felt their political party was, and a lab experiment where we manipulated the entitativity of non-interactive groups. In both experiments we directly primed self-uncertainty to be high or low (a similar priming procedure used by McGregor et al. (2001) did not significantly affect self-esteem), and measured group identification. Previous tests of uncertainty reduction theory have not manipulated self-uncertainty directly.

Together, these studies provide good evidence, across "real" groups and ad hoc lab groups, that people identify more with high than low entitativity groups (entitativity measured or manipulated) but only when they are contextually self-uncertain, and that increased uncertainty strengthens identification only when the group is highly entitative. These studies are a significant advance on previous related studies (e.g., Castano et al., 2003; Jetten et al., 2000; also see Hogg, 2000) - they manipulate *self*-uncertainty directly as opposed to manipulating or measuring perceptual uncertainty or only inferring uncertainty; they manipulate or measure perceived entitativity as an integrated perception rather than focus on separate isolated components of entitativity, such as homogeneity; and they find effects on a well-tried direct measure of identification, rather than indirect measures of stereotypic perception. We believe we have provided the first conclusive evidence that perceived group entitativity moderates the effect of self-uncertainty on group identification. In addition, these studies link the uncertainty reduction literature,

showing that entitativity moderates the self-uncertainty-identification relationship, with the entitativity literature, showing that self-uncertainty moderates the entitativity-identification relationship.

Our studies also extend Pickett and colleagues' research. Pickett and colleagues (e.g., Pickett & Brewer, 2001; Pickett, Silver & Brewer, 2002) argue that the relationship between identification and group entitativity/inclusiveness is moderated by motivational states, and show that one motivational moderator is need for assimilation/differentiation as specified by optimal distinctiveness theory. Our studies show that self-conceptual uncertainty, as specified by uncertainty reduction theory, is another powerful moderator of the entitativity-identification relationship.

Our research has implications for McGregor et al.'s *compensatory conviction* model. Based on self-affirmation theory (Steele, 1988), compensatory conviction is a hydraulic motivational model which argues that when people feel uncertain in one domain they compensate for this by "spontaneously emphasizing certainty and conviction about unrelated attitudes, values, personal goals, and identifications" (McGregor et al., 2001, p. 473; also see McGregor & Marigold, 2003). Compensatory conviction research focuses mainly on uncertainty-sponsored hardening of expressed attitudes towards social issues, and has recently (e.g., McGregor & Marigold, 2003) investigated the moderating role of self-esteem as an individual difference variable. Although it provides some data showing uncertainty-sponsored hardening of intergroup attitudes and affirmation that particular activities define self (McGregor et al, 2001), compensatory conviction is not a motivational account of psychological identification with a social group. Because it states that people compensate for uncertainty in one domain by expressing conviction in

another, it cannot easily account for the uncertainty reduction theory finding that the

uncertainty-identification relationship is moderated by being categorized (e.g., Grieve &

Hogg, 1999; see Hogg, 2000), nor for the moderating role of entitativity reported in the

present article. Uncertainty reduction theory focuses on group identification, not

affirmation or conviction, as a response to self-uncertainty, and thus it predicts that

factors related to group membership, such as inclusion, categorization and entitativity,

will influence how strongly people identify with a group as a response to self-uncertainty.

One implication of our research is for an uncertainty reduction analysis of

extremism (Hogg, 2004, 2005b). We can speculate that chronic and extreme levels of

uncertainty, perhaps associated with personal or widespread life or societal crises, may

motivate people to identify strongly, as "true believers" (Hoffer, 1951), with highly

entitative groups – a process where people become entrepreneurs of entitativity, working

diligently to perceptually, rhetorically, and actually increase their groups entitativity. In

extreme cases such groups may have orthodox and ideological belief systems, have

powerful leaders and zealous followers, be harsh on marginal members and dissidents,

and generally resemble extremist or 'totalist' groups (e.g., Baron, Crawley, & Paulina,

2003). Extreme societal uncertainty may tighten the iron grip of ideology (Hogg, 2005b)

and spawn orthodoxy and extremism via social identification (cf. Marsella, 2004; Staub,

1989; Taylor & Louis, 2004).

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Footnote

1. To establish the effectiveness of the self-uncertainty prime 29 participants, from the
    same population as the experiment, were given the high or low uncertainty prime, and
    worked through a list of 74 neutral personality traits (from Anderson, 1968). For each
    trait they circled 'yes' or 'no' to indicate if the trait applied to them or not. They
    believed they had a few minutes to do this, but were stopped after one minute – none
    had completed the list. We reasoned that saying 'yes' to (affirming) these neutral
    items conveyed more concrete information about self (positive statements of who you
    are) than saying 'no' (simply stating who you are not). We expected high uncertainty
    participants to respond 'yes' less frequently (less certain about self) than low
    uncertainty participants (more certain about self). Our expectation was confirmed –
    high uncertainty participants circled a significantly smaller proportion of items 'yes'
    ($M = 55.25\%$) than did low uncertainty participants ($M = 64.36\%$), $t(1, 28) = 2.16$, p
    $= .04$.

2. The interaction was also significant when age was not a covariate, $F(1, 85) = 4.02$, p
    $= .048$.

Figure 1

Study One: Identification as a function of ingroup entitativity, under conditions of low
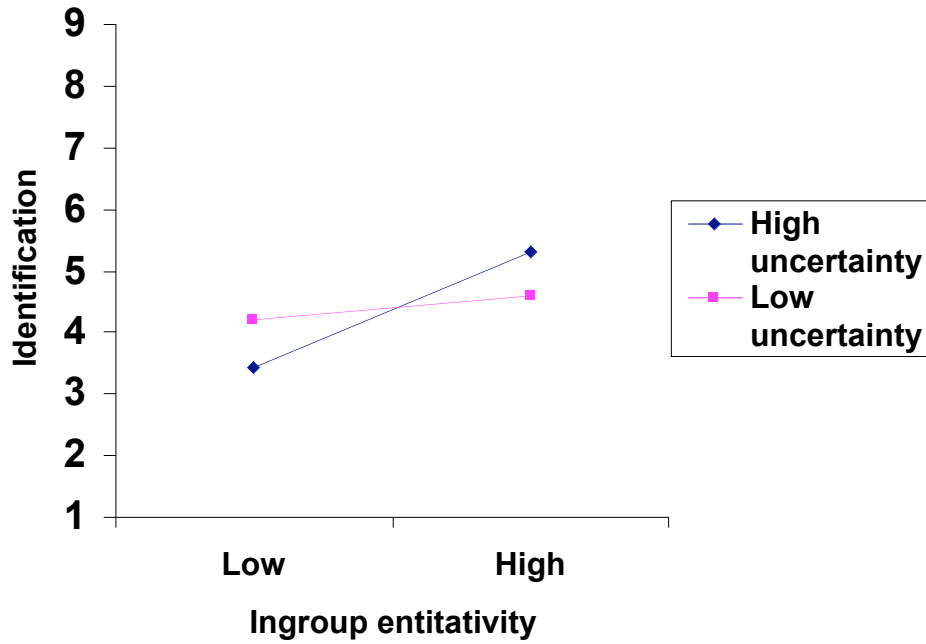
and high uncertainty.

Figure 2

Study Two: Identification as a function of uncertainty and ingroup entitativity.