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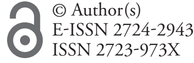

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Uncertainty, Group Identification and Intergroup Behavior: Positive and Negative Outcomes of how People Experience Uncertainty

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Abstract

Uncertainty is part of daily life, and an enduring feature of the wider world we live in. People experience and react to uncertainty in different ways, as a function of their individual preferences and the nature and context of the uncertainty. In this article I describe an uncertainty-identity theory analysis of how feelings of uncertainty, specifically self-uncertainty, shape and drive what we do, what we think, and how we feel, and ultimately affect the world we live in. Identification with distinctive groups with unambiguous and clearly defined social identities is a very effective way to reduce self-related uncertainty, and thus delivers all the benefits of group identification and cohesive groups for individuals, groups and society. However, when people feel they do not have the cognitive, social and material resources to reduce uncertainty then uncertainty is experienced as an overwhelming threat that is to be avoided, rather than sought out as an exhilarating challenge to be easily resolved. Identification to reduce uncertainty experienced as a threat can generate an array of negative outcomes associated with extremism, populism, autocratic leadership, identity echo chambers, suppression of diversity, and so forth.

Key words: uncertainty, self-uncertainty, self, social identity, group behavior, intergroup relations, extremism

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Introduction

Uncertainty is part of daily life, as much as it is an enduring feature of the wider world we live in. People experience and react to uncertainty in different ways, as a function of their individual predilections and the nature and context of the uncertainty. The key question is how might uncertainty shape and drive what we do, what we think, and how we feel, and ultimately affect the world we live in. In this article I present one perspective on how uncertainty influences people and how people might feel about and respond to uncertainty – uncertainty-identity theory (Hogg, 2007, 2014, 2021a, 2021b, 2023).

I discuss uncertainty and self-uncertainty and their motivational role in human behavior, then focus on uncertainty-identity theory's core tenet – that group identification, particularly with highly entitative groups and their distinctive social identities, is a particularly effective way to reduce self-uncertainty. I then talk about how people might experience uncertainty and how the experience and context of uncertainty may shape the way people resolve uncertainty. The article concludes by reflecting back on the experience and context of uncertainty, and how this might influence the way in which uncertainty motivated identification may be manifested – there is recognition of the bright side (positive consequences) of uncertainty motivated identification, and more extensive coverage of the dark side (negative consequences).

Uncertainty and Self-Uncertainty

Uncertainty has long been considered a significant motivator of human behavior. For example, Eric Fromm (1947) proposed that people need a clear sense of identity, social connection and place in the world, and Tajfel (1969) considered stereotyping and prejudice to partially reflect a cognitive drive for mental coherence. Others have focused on the role of uncertainty in decision-making (e.g., Kahneman, Slovic, & Tversky, 1982) and social comparison (e.g., Festinger, 1954; see, Križan, & Gibbons, 2014).

Generally, scholars agree that people cannot really *feel* completely certain, only less uncertain (Pollock, 2003), and so they strive to reduce uncertainty in order to *feel* less uncertain. The process of reducing uncertainty can be cognitively demanding and people are strategic in how they allocate their limited cognitive resources (e.g., Fiske & Taylor, 2021), so they expend cognitive energy resolving only those uncertainties that are important to them, and when they feel "sufficiently" certain and that there is "adequate" cognitive closure (cf. Kruglanski & Fishman, 2009; Kruglanski & Webster, 1996) they move on to invest cognitive effort elsewhere.

Because the self is an organizing and planning mechanism for how we represent and act within the world (e.g., Sedikides, Alicke, & Skowronski, 2021; Swann & Bosson, 2010), some of the most psychologically important and impactful uncertainties are those that involve self-conception (see Carroll, Rios, & Oleson, in press). Thus, whether an uncertainty "matters" enough to warrant resolution depends on the extent to which self is involved.

Uncertainty-identity theory (e.g., Hogg, 2007, 2021a) focuses on uncertainty about or reflecting on our sense of who we are. Uncertainty about ourselves and our self-related perceptions, attitudes, feelings, and behaviors is a significant motivator (e.g., Brown, Hohman, Niedbaka, & Stinnett, 2021; Jonas, McGregor, Klackl, et al., 2014). We strive to reduce such uncertainties so we feel less uncertain about ourselves and the world we live in. This makes the world and our own behavior and expectations within it more predictable and controllable. Reduced self-uncertainty allows us to feel we know ourselves, anticipate how others will perceive and treat us, and plan how we should act.

Uncertainty-identity theory theorizes about the motivational role of *self*-uncertainty, not uncertainties that do not reflect on or involve self-conception. Other social psychological literatures invoke self-related uncertainty (see Carroll, Rios, & Oleson, in press; Hogg, Kruglanski, & Van den Bos, 2013; Kruglanski, Pierro, Mannetti, & De Grada, 2006; Sorrentino & Roney, 1999; Van den Bos, 2009); however, as we shall see below, in arguing that self-uncertainty is resolved by group identification, uncertainty-identity theory specifically and explicitly theorizes the causal link between self-uncertainty and social identity and group and intergroup processes.

Group Identification Reduces Self-Uncertainty

According to uncertainty-identity theory (Hogg, 2007, 2021a) group identification is one of the most effective ways to reduce uncertainty about self, particularly the collective self. This core premise of the theory draws on social identity theory's analysis of the generative role of social categorization of self and others in constructing and expressing social identity and associated group and intergroup behaviors (Tajfel & Turner, 1986; Turner et al., 1987; for overview see Abrams & Hogg, 2010; Hogg, 2016, 2018).

According to social identity theory, groups define who we are – they provide us with a social identity and associated identity-defining attributes – and in turn social identity prescribes how we ought to view the world, other people, and ourselves, and how we ought to act as group members. The underlying process is social categorization. When we categorize ourselves and others as group members we transform the way we act and view ourselves and others to conform to the relevant group identity. Social categorization depersonalizes perception and action, and accentuates identity-relevant similarities within groups and identity-relevant differences between groups (between "us" and "them").

One key motivation, according to uncertainty-identity theory, for social identity processes and associated phenomena is self-uncertainty reduction. Feelings of uncertainty about who one is and how one should behave motivate uncertainty-reduction; and group identification, particularly, as we shall see below, with distinctive groups that have clearly defined identities, is effective at reducing self-uncertainty. It provides us with an identity and sense of who we are that prescribes what we should think, feel and do; it regulates social interaction; and it reduces uncertainty about how others, both ingroup

and outgroup members, will behave and about how social interactions will unfold.

Group identification also provides consensual validation of our worldview and sense of self, which further reduces uncertainty. Because people in a group tend to share the same prototype of "us" and share the same prototype of "them", our own expectations about the prototype-based behavior of others are usually confirmed, and our fellow group members agree with our perceptions, beliefs, attitudes and values and approve of how we behave. People in a group have a shared social identity and a shared reality (Echterhoff, Higgins, & Levine, 2009; Hogg & Rinella, 2018). The discovery that fellow ingroup members do not see the world as we do (they do not share our reality) can create significant uncertainty about the group's identity and thus self-conception (e.g., Wagoner, et al., 2017).

Because identification reduces and protects people from self-uncertainty, uncertainty-identity theory's most basic prediction is that the more uncertain people are the more likely they are to identify, and to identify more strongly, with a self-inclusive social category. This prediction has been confirmed across numerous studies in which uncertainty is measured or manipulated in a variety of ways that indirectly or more directly focus on self-uncertainty, and identification is measured by widely-used and reliable group identification scales (see meta-analysis of 4,657 participants across 35 studies by Choi & Hogg, 2020). There is also some evidence that having a "certain" sense of self can take precedence over having a favorable sense of self - people confronted by feelings of self-uncertainty will identify with a group that mediates undesirable status and lower self-esteem if such a group is their only social identity option (Reid & Hogg, 2005).

Distinctive Groups and Unambiguous Identities

For identification to effectively reduce self-uncertainty it matters what properties the group and its social identity have. Some groups have properties that better equip them to reduce self-uncertainty. One such property is *entitativity* (e.g., Hamilton & Sherman, 1996; Lickel, Hamilton, Wieczorkowska, Lewis, Sherman, & Uhles, 2000). An entitative group is a distinctive, coherent and clearly structured unit with sharp intergroup boundaries, within which members share attributes and goals, have a shared fate, and interact with one another in a climate of interdependence – such a group does an excellent job of reducing or fending off self-uncertainty. In contrast, a low entitativity group is unclearly structured with indistinct boundaries, ambiguous membership criteria, limited shared goals, and little agreement on group attributes – it is poorly equipped to reduce self-uncertainty.

One reason why identification reduces uncertainty is that self is governed by an identity that prescribes how one ought to think, feel and behave. It follows that ingroup identities that are simple, clear, unambiguous, prescriptive, focused and consensual are more effective than those that are vague, ambiguous, unfocused and dissensual. The former identities are more likely to be associated with highly entitative groups; and people are more likely to anchor such identities in invariant underlying group essences (e.g., Haslam, Bastian, Bain, & Kashima, 2006) that provide further predictability and stability and make the group and its identity even better at reducing and fending off uncertainty.

Uncertainty-identity theory predicts that people who are experiencing self-uncertainty (in the immediate situation or broader context) identify more strongly with high than low entitativity groups, and, if possible, dis-identify from low entitativity groups or work to make such groups appear more entitative. Numerous direct tests support this prediction (e.g., Hogg, Meehan, & Farquharson, 2010; Hogg, Sherman, Dierselhuis, Maitner, & Moffitt, 2007).

Uncertainty-identity theory, taken in conjunction with the theory of subjective group dynamics (e.g., Pinto, Marques, Levine, & Abrams, 2010) suggests that group members can pose a threat to group entitativity and identity clarity if they deviate from or fail to embody ingroup identity-defining norms, particularly if they deviate towards rather than away from an outgroup (e.g., see Anjewierden, Syfers, Pinto, Gaffney, & Hogg, in press). The existence of such identity deviants or defectors within a group (Mannetti, Levine, Pierro, & Kruglanski, 2010), as much as the entry of new members (Theodorou, Livi, Kruglanski, & Pierro, 2023; Pinto, et al., 2010), can blur intergroup boundaries and fray internal identity-related consensus and cohesion, which weakens entitativity and distinctiveness.

This can elevate identity uncertainty and self-uncertainty, which motivates people to restore and strengthen entitativity by rejection, marginalization, and/or attempts to (re)socialize those who violate the group's identity defining attributes (Pinto et al., 2010), or perhaps motivates people to disidentify from the group altogether and psychological exit to join a more entitative group. Rullo and Livi (2019) report two studies showing that the tendency to reject ingroup deviants (black sheep) is stronger when identification and group entitativity are high – presumably because under these circumstances the motivation to protect identity and entitativity to fend of uncertainty is strongest.

How People Experience Self-Uncertainty

Self-uncertainty can be experienced in different ways depending on (a) what aspect of self is implicated most, (b) how much overlap there is among different aspects of selves or different social identities, (c) the resources people feel they have to deal with the uncertainty, and (d) the exogenous causes of self-uncertainty. How people experience self-uncertainty may influence the dynamics and manifestation of uncertainty-reducing group identification.

Aspects of self

Brewer and Gardner (1996; also see Sedikides & Brewer, 2001) propose three different aspects of self (a) *individual self,* based on personal traits that differentiate "me" from all others;

(b) *relational self,* based on connections and role relationships with specific significant others, and (c) *collective self,* based on group membership that differentiates 'us' from 'them'. Self-uncertainty can be associated with any of these aspects. You can feel uncertain about your individual attributes, yourself in relation to specific other people, or yourself as a group member. Although these aspects are qualitatively different, uncertainty experienced in one domain can spread to other self-domains. For example, if you are primarily uncertain about your relational self, you may also become uncertain about your individual self. Research has shown that self-uncertainty overall strengthens group identification, particularly when people feel uncertain about their collective self (Hogg & Mahajan, 2018).

Identity overlap

The degree to which self-uncertainty in one domain pervades other domains of self is influenced by self- and social identity-complexity – the extent that attributes that define one aspect of self (or one social identity) overlap with or are the same as those that define other aspects of self (or other social identities) (Brewer & Pierce, 2005; Roccas & Brewer, 2002). A person has a complex self-concept and social identity if they have many discrete and dissimilar identities that do not overlap; a person has a simple social identity if they have few identities that are largely the same. A complex self-structure can quarantine identity-specific self-uncertainty, and allow people to compensate by identifying more strongly with other identities (or aspects of self) that they believe are central to their overall sense of self (Grant & Hogg, 2012).

Resources to reduce uncertainty

Self-uncertainty can be experienced differently depending on whether you believe you have adequate cognitive, emotional, social and material resources to reduce the uncertainty (cf., Blascovich, Mendes, Tomaka, Salomon, & Seery, 2003; Blascovich & Tomaka, 1996). With adequate resources, uncertainty is an exhilarating challenge to embrace, even seek out, and resolve; without such resources, it is an anxiety-provoking and stressful threat to avoid and protect yourself against.

Whether uncertainty is experienced as a challenge or a threat may influence the behaviors people adopt to reduce the uncertainty - behaviors that can reflect a more promotive (e.g., self- and identity-promoting) or more preventative (e.g., self- and identity-protective) behavioral orientation (cf. Higgins's, 1998, regulatory focus theory). Uncertainty experienced as a challenge might encourage promotive behaviors (e.g., confident and proud assertion of one's identity). Uncertainty experienced as a threat might encourage more protective behaviors (e.g., retreat into polarized identity echo chambers) – behaviors that might rest on an identity that also legitimizes and supports "extremism".

There is as yet no research that directly explores how self-uncertainty and resource sufficiency (i.e., self-uncertainty experienced as a challenge or a threat) interact to affect regulatory focus (promotion versus prevention) and associated behavior (see Hogg, 2023; Hogg & Gaffney, 2023). Existing literature is only obliquely relevant – for example, studies of challenge and threat appraisals and intergroup relations (e.g., Scheepers, 2009; Scholl, Sassenrath, & Sassenberg, 2015), and studies of the interactive effect of regulatory focus (promotion/prevention) and challenge/threat on behavior (Sassenberg & Scholl, 2019).

Causes of self-uncertainty

Finally, there are many possible causes of self-uncertainty: new social contexts, life crises, relationship changes, globalization, immigration and mass migration, climate change, automation, the reconfiguration of "work", socio-political instability, and the realignment of super-national entities and alliances. All of these can create uncertainty about one's collective self and social identity.

However, collective self-uncertainty can be particularly provoked by uncertainty about the defining attributes of a group that one identifies with (social identity clarity and distinctiveness are absent – Wagoner, Belavadi, & Jung, 2017), about how well one fits into and is accepted by a group that is central to one sense of self (Goldman & Hogg, 2016; Hohman, Gaffney, & Hogg, 2017), and about how well one's group fits into a larger collective (for example a nation within the European Union – Wagoner, Antonini, Hogg, Barbieri, & Talamo, 2018; Wagoner & Hogg, 2016). But most importantly, people are motivated to reduce self-uncertainty only when exogenous conditions create a sense of self-uncertainty.

Consequences of Group Identification to Reduce Self-Uncertainty

Identification to reduce self-uncertainty has a number of consequences, some positive some negative, which may largely be governed by the extent to which uncertainty is mainly experienced as an exciting challenge or an aversive threat.

Most research on uncertainty has highlighted the negative - emphasizing the tendency for people to avoid uncertainty and unpredictability, seek cognitive closure, crave security, and compensate for the aversive state associated with uncertainty (e.g., Brizi, Mannetti, & Kruglanski, 2016; Chirumbolo, Livi, Mannetti, Pierro, & Kruglanski, 2004; De Grada, Kruglanski, Mannetti, & Pierro, 1999; Frenkel-Brunswick, 1948; Kosic, Kruglanski, Pierro, & Mannetti, 2004; Kruglanski, 2004; Kruglanski et al., 2006; Mannetti, Pierro, Kruglanski, Taris, & Bezinovic, 2002). However other research highlights the positive – emphasizing approach rather than avoidance of the uncertain and highlighting people's positive feelings about novel and uncertain situations (e.g., research on creativity (Sternberg & Kaufman, 2010),) and on curiosity and exploration (Szumowska & Kruglanski, 2020), for review see Kruglanski, Ellenberg, Molinario, Speckhard, et al., 2023).

Uncertainty-identity theory emphasizes both positive and negative consequences of the uncertainty-identification relationship (Hogg, 2007, 2021a, 2023), though in keeping with other literatures it has tended to focus more on the negative (Hogg, 2014, 2021b).

The bright side: Positive consequences of the uncertainty-identification relationship

Under normal circumstances the uncertainty-identity relationship strengthens group identification (Choi & Hogg, 2020). It makes distinctive and cohesive groups and unambiguous identities attractive, and thus delivers all the positive and desirable outcomes of group identification for individuals, groups and society. These outcomes are numerous (see Hogg, 1993; Van Knippenberg & Hogg, 2018).

Identification motivates group members to express solidarity and work hard for the group to achieve its goals. People have a sense of attachment, commitment, belonging and "fitting in", and feel they have efficacy and authorship of their own destiny in a predictable and navigable world. There is an atmosphere of interdependence, shared fate, and mutual loyalty within groups, and members place the group's interest ahead of self-interest, favor ingroup over outgroups, and show willingness to engage in extra-role behavior and to "go the extra mile" for the group. There is social identity centered communication to establish, refine and build consensus around the group's norms and identity that members conform to. Finally, there is trust in leadership and willingness to be led, particularly by group prototypical leaders (who are viewed as "one of us"), and members extend innovation credit to their leaders and, within limits, buy into leader-sponsored and group promotive identity reconfigurations.

The dark side: Self-uncertainty, group identification and extremism

There is, however, a dark side to the uncertainty-identification relationship, which has become a significant focus of uncertainty-identity theory (e.g., Hogg, 2014, 2021b, 2023; Hogg & Gaffney, 2023). The key premise is that under some conditions the uncertainty-identification relationship can become distorted, such that uncertainty-motivated identification can have toxic and destructive consequences for individuals, groups and society. These consequences emerge when self-uncertainty is extreme and chronic, and experienced as a threat that people feel they do not have the resources to resolve; and when people have a simple identity structure with few discrete (and positive) identities (e.g., Roccas & Brewer, 2002), and their sense of self is grounded in a single social identity that saturates the self-concept (e.g., Swann, Jetten, Gomez, Whitehouse, & Bastian, 2012).

Under these circumstances people are desperate to identify and belong, and yearn for decisive leadership to help resolve their uncertainty and make them feel included and validated. Distinctive groups with unambiguously defined identities and directive leadership are particularly attractive - more attractive than fuzzy groups with ambiguous non-consensual identities and laissez faire leadership. The former provides members with a clear, unequivocal and concrete sense of what the group is and therefore who they are, which is precisely what is sought under uncertainty.

Other group attributes are similarly attractive, because they convey uncertainty-reducing identity information. For example, people develop a social identity and group-membership preference for partisan, xenophobic groups that are polarized, intolerant of internal dissent and have demagogic leaders (e.g., Hogg, Meehan, & Farquharson, 2010). Group-centrism becomes entrenched (e.g., Kruglanski, Pierro, Mannetti, & De Grada, 2006). People expose themselves primarily to the opinions of ingroup members; endorse central authority that dictates social identity; suppress dissent, shun diversity, and promote ingroup favoritism; and venerate and fiercely adhere to their group's norms and traditions. They embrace ethnocentrism (Brewer & Campbell, 1976), mistrust and fear outsiders (Stephan, 2014), view group attributes as fixed essences (Haslam, Bastian, Bain, & Kashima, 2006), and harbor the potential to dehumanize outgroups (Haslam, 2006; Haslam, Loughnan, & Kashima, 2008). A sense of identity threat and societal disrespect can cause hatred, aggression and violence to become a part of the group's identity (e.g., Belavadi, Rinella, & Hogg, 2020; Rios, Sosa, & Osborn, 2018).

Populism prevails because populist ideologies and leaders strengthen the perceived ability of the group and its identity to resolve uncertainty (Hogg & Gøtzsche-Astrup, 2021). Conspiracy theories thrive (e.g., Douglas & Sutton, 2018) as do a sense of collective narcissism and under-appreciated superiority, and a narrative of collective victimhood that unites the group, recruits third party sympathy and support (e.g., Belavadi & Hogg, 2018), and raises the specter of an existential threat to the ingroup that invites and justifies violence against the outgroup (e.g., Belavadi, Rinella, & Hogg, 2020).

Leadership and associated identity messaging play a significant role – they can fuel polarization, build barriers between groups, and sustain zero-sum intergroup conflict and hostility (e.g., Rast & Hogg, 2017). Under uncertainty people need leadership (Rast, Gaffney, Hogg, & Crisp, 2012), particularly leadership that constructs, embodies and communicates a simple and unambiguous ingroup identity (Gaffney, Hackett, Rast, Hohman, & Jaurique, 2018). They also prefer leaders who are dominant and autocratic (Rast, Hogg, & Giessner, 2013) and who exemplify and promote a populist ideology (e.g., Hogg & Gøtzsche-Astrup, 2021). Uncertainty also creates an environment in which leaders who exhibit the Dark Triad attributes of Machiavellianism, narcissism and psychopathy (a personality mix associated with autocratic, toxic and dysfunctional leadership) secure and thrive in leadership positions (e.g., Guillén, Jacquart, & Hogg, 2023).

In the modern social media environment, "leadership" and identity-messaging dynamics often play out via influential online identity silos and echo-chambers (e.g., Cinelli, De Francisci Morales, Galeazzi, Quattrociocchi, & Starnini, 2021). These platforms can take advantage of identity fault lines to satisfy people's need for identity confirmation, promote intergroup threat and hostility, and fan the flames of schism and social fragmentation (e.g. Wagoner et al., 2018).

Concluding Summary

Uncertainty pervades everyday life and the wider world we live in. So, it is not surprising that the study of uncertainty and its effects on people's behavior has been a major focus across the social, behavioral and organizational sciences. How do people experience and respond to uncertainty, and how might uncertainty shape and drive what we do, what we think,

and how we feel, and ultimately affect the world we live in? In this article I tackle these questions from the perspective of uncertainty-identity theory (e.g., Hogg, 2021a, 2021b, 2023).

Uncertainty is a state of mind that seeks resolution – people are motivated to reduce uncertainty because uncertainty makes it difficult to predict what to expect and what to do. Being able to successfully reduce uncertainty is satisfying because it delivers a sense of mastery and agency in a more predictable world. However, uncertainty reduction is cognitively effortful so people only invest their limited cognitive resources in reducing those uncertainties that really matter; and then only do as much as it takes to feel adequately certain – it is more accurate to talk about reducing uncertainty than attaining complete certainty. One significant determinant of how much an uncertainty matters is the extent that the uncertainty reflects on or is directly about one's sense of self and identity – about who one is.

Self-uncertainty can be very effectively reduced by group identification. Particularly with highly entitative groups that have distinctive, consensual and clearly defined identities – such groups reduce self-uncertainty precisely because they provide an unambiguous and clearly defined sense of who one is. As such, self-uncertainty motivates group identification and social identity processes and phenomena. Because self-uncertainty motivates group identification, it can also deliver all the beneficial outcomes of group identification for individuals, groups and society – attachment, commitment, cohesion, common purpose, shared vision, trust in leadership and so forth.

However, the subjective experience and context of uncertainty can vary along a continuum defined by the extent to which a person feels they have the cognitive, emotional, social and material resources to resolve the uncertainty. When people feel they have adequate resources (along with a rich repertoire of distinctive positive identities) uncertainty is experienced as an exciting challenge to be sought out and resolved. There is a promotive (e.g., self- and identity-promoting) behavioral orientation that facilitates the positive outcomes described above. When feel people they do not have adequate resources (and effectively have just a single identity, or identities that are largely identical in terms of their attributes) uncertainty is experienced as a threat to be avoided. There is a preventative (e.g., self- and identity-protective) behavioral orientation that may generate undesirable outcomes associated with extremism, populism, autocratic leadership, echo chambers, suppression of diversity, and so forth.

In a world of overwhelming change and uncertainty that impacts people's sense of who they are (for example globalization that transforms society and marginalizes many - e.g., Ozer, Obaidi, & Anjum, 2023) self-uncertainty is all too often experienced as a crushing threat, not an exciting challenge. People can all too easily resolve this threatening uncertainty by living in identity echo chambers, walling-out people who are "different", seeking homogeneity and the safety of like-minded others, turning to toxic and populist leaders, and feeling liberated by the internet to express hatred and vilify others. One could, optimistically, speculate that societal infrastructure-focused interventions that provide resources (e.g., time, money, education, social networks, life-style, etc.) could help transform "uncertainty as a threat" into "uncertainty as a challenge", and thereby tip the balance away from the negative and towards the positive outcomes of the uncertainty-identity relationship (e.g., Hogg, in press).

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