Religion in the Face of Uncertainty: An Uncertainty-Identity Theory Account of Religiousness

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Abstract

The authors characterize religions as social groups and religiosity as the extent to which a person identifies with a religion, subscribes to its ideology or worldview, and conforms to its normative practices. They argue that religions have attributes that make them well suited to reduce feelings of self-uncertainty. According to uncertainty-identity theory, people are motivated to reduce feelings of uncertainty about or reflecting on self; and identification with groups, particularly highly entitative groups, is a very effective way to reduce uncertainty. All groups provide belief systems and normative prescriptions related to everyday life. However, religions also address the nature of existence, invoking sacred entities and associated rituals and ceremonies. They are entitative groups that provide a moral compass and rules for living that pervade a person's life, making them particularly attractive in times of uncertainty. The authors document data supporting their analysis and discuss conditions that transform religiosity into religious zealotry and extremism.

Keywords

self, identity, social identity, group processes, intergroup relations

Religions are social groups that focus people's spiritual and existential curiosity and provide ideological and behavioral guidelines for this curiosity and for daily life. Like all groups, religions vary in how they are structured and organized; some are flexible, open, and loosely structured, others are tightly organized with well-established and distinctive authority structures, powerful normative prescriptions about beliefs, attitudes, and behaviors, and rigorously self-contained and far-reaching explanatory ideologies. In addition, members of the same religion can vary in how strongly they identify and how central the religion is to their sense of self—some people identify weakly and their religion is a small part of who they are, for others their religion saturates the self and they identify very strongly.

Religions endure, probably because curiosity about the nature of existence and the afterlife is a pervasive feature of the human condition. However, religions evince a paradox. Organized religions provide a practical moral code and set of principles for daily living that are widely shared across major religions and encourage people to live in harmony and to treat others with tolerance, understanding, kindness, and compassion. However, religions can also be intolerant and cruel, with some adherents who claim to be religious committing atrocities in the name of their religion (Dawkins, 2006; Juergensmeyer, 2000).

In this article, we explore the role of feelings of uncertainty about and related to self in people's identification with religious groups and in the form that religions, particularly organized religions, take. We address why religion is an enduringly powerful influence over humanity, why a person's religion can be an all-embracing master identity, and why religion can sometimes be associated with extremism. Our analysis is grounded in uncertainty-identity theory (Hogg, 2000, 2007, in press), which describes how social identity processes associated with group membership satisfy people's fundamental need to reduce uncertainty about who they are, what they should think, how they should behave, and how others will perceive and treat them. After briefly dealing with definitions and scope, we describe uncertainty-identity theory and how it explains religion. Along the way we review relevant direct and indirect evidence in support of our analysis.

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Spirituality, Religiousness, Religious Identification, and Religions

Religion has been the focus of scholarly debate for thousands of years across many disciplines—not surprisingly, there are many different perspectives, distinctions, and definitions. Within mainstream social psychology, research on religion per se has had a relatively low profile but nevertheless has been a focus of some key thinking, for example, in the work of Wundt (1912/1916), Allport (1950), and Batson (e.g., Batson, Schoenrade, & Ventis, 1993; Batson & Ventis, 1982; for an overview, see Wulff, 1997; for some recent research, see Flere & Lavrič, 2008).

For the purpose of the present article, we adopt a relatively common distinction between spirituality and religion (e.g., Hill et al., 2000). Spirituality is a personal pursuit of existential understanding and an approach to the divine and sacred that typically revolves around self-transcendence (e.g., Helminiak, 2006; Miller & Thoresen, 2003; Moberg, 2002). Religion is a group phenomenon involving group norms that specify beliefs, attitudes, values, and behaviors relating to both sacred and secular aspects of life, which are integrated and imbued with meaning by an ideological framework and worldview (e.g., Hunsberger & Jackson, 2005; Koenig, McCullough, & Larson, 2001; Pargament, Magyar-Russell, & Murray-Swank, 2005; Silberman, 2005).

A religion is a group, and religious people are those who identify with the group and adhere to its normative beliefs and practices. Religious groups differ from other groups in one fundamental way—they invoke the sacred and the divine to render existence meaningful and to provide prescriptive moral guidance for behavioral choices, sacred rituals and quests, and daily life (e.g., Kimball, 2002). Uncertainty-identity theory is a theory of how *group* identity addresses self-related uncertainty, and so it is relevant to an explanation of religion and religiosity, not spirituality. It speaks directly to why and how a spiritual person may identify with a religion, but only indirectly to why the person is spiritual in the first place.

Uncertainty-Identity Theory

Uncertainty. Uncertainty-identity theory (Hogg, 2000, 2007, in press) conceptualizes the relationship among self-uncertainty, group identification, and group structure and behavior. The core premise (also see Van den Bos, in press) is that feeling uncertain about one's perceptions, attitudes, values, and ultimately oneself is uncomfortable and powerfully motivating (e.g., Greco & Roger, 2003; Marigold, McGregor, & Zanna, 2010; Van den Bos, 2001). We strive to reduce such uncertainties so that we feel less uncertain about ourselves and the world we live in and thus render the world more predictable and our own behavior within it more efficacious. The pragmatist philosopher John Dewey (1929/2005) captured the motivational prominence of uncertainty-reduction rather nicely: "In the absence of actual certainty in the midst of a precarious and hazardous world, men cultivate all sorts of things that would give them the *feeling* of certainty" (p. 33).

The experience of uncertainty varies: It can be an exhilarating challenge that delivers a sense of satisfaction and mastery in its resolution, or it can be stressful and anxiety provoking, making us feel powerless and unable to predict or control our world and what will happen to us. From the perspective of Blascovich's biopsychosocial model of challenge and threat (Blascovich, 2008; Blascovich & Tomaka, 1996), uncertainty can be considered a demand. If we believe our resources to deal with the demand are adequate, we feel a sense of challenge that sponsors promotive, approach behaviors; if we believe our resources are inadequate, we feel a sense of threat that sponsors protective, avoidant behaviors. In this way people can reduce or regulate their uncertainty in quite different ways, reflecting a more promotive or more preventative approach (cf. Higgins's, 1998, regulatory focus theory).

The process of resolving uncertainty can be cognitively demanding; so we expend cognitive energy resolving only those uncertainties that are important or matter to us. A key determinant of whether an uncertainty matters is the extent to which self is involved. We are particularly motivated to reduce uncertainty if we feel uncertain about things that reflect on or are relevant to self, or if we are uncertain about self itself. We need to know who we are and how to behave and what to think, who others are and how they might behave and what they might think, and how we fit into a predictable social, physical, and, particularly relevant to this article, existential universe. Van den Bos (in press) captured the motivational importance of self-uncertainty in a similar way in his description of what he called personal uncertainty.

There are two caveats about uncertainty reduction. The first is that you cannot feel completely certain, only less uncertain (Pollock, 2003). Living in an entirely certain world would probably be very boring (Wilson, Centerbar, Kermer, & Gilbert, 2005), and people who claim complete certainty are often viewed with suspicion as dangerously deluded narcissists, zealots, or ideologues. Typically, people work to reduce uncertainty until they feel "sufficiently" certain about something to desist from dedicating further cognitive effort to uncertainty reduction—this provides closure (Koffka, 1935) and allows cognitive effort to be directed elsewhere. Hence uncertainty-identity theory is about reducing uncertainty rather than achieving certainty.

The second caveat is that the pursuit of uncertainty reduction does not exclude the possibility that individuals or groups sometimes embark on courses of action that in the short term increase uncertainty. This is typically the case when life circumstances are unbearable or characterized by enduring contradictions or uncertainties, and people are confident that the experience of short-term uncertainty is necessary (e.g., individual immigration or collective revolution). Change is

risky and uncertain and not undertaken lightly (e.g., Jost, Banaji, & Nosek, 2004; Jost & Hunyady, 2002).

The idea that uncertainty plays a significant role in motivating human behavior is not new. There are many analyses of the causes and consequences of uncertainty and of the relationship between uncertainty and related constructs such as meaning (for a relevant review and discussion focused on self-uncertainty, see Arkin, Oleson, & Carroll, 2010; Hogg, in press; Van den Bos, in press). One perspective on uncertainty that has dominated the literature is the personality and individual differences perspective—across a variety of situations some people feel more uncertain than others and have a greater need to reduce or avoid uncertainty (e.g., Cacioppo & Petty, 1982; J. D. Campbell et al., 1996; Kruglanski, 2004; Kruglanski & Webster, 1996; Rokeach, 1960; Sorrentino & Roney, 1999; Webster & Kruglanski, 1994). Uncertainty-identity theory, however, focuses on context-dependent uncertainty, self-focused or self-related uncertainty that is primed by immediate situations or instantiated by more enduring contexts.

Group Identification, Self-Categorization, and Uncertainty Reduction. Feelings of uncertainty about or reflecting on self can be resolved in different ways—for example, by viewing the world as fair and just (Van den Bos & Lind, 2002). However, group identification is one of the most effective ways to reduce self-related uncertainty. According to social identity theory (Tajfel & Turner, 1979; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987; also see Hogg, 2006), people cognitively represent social groups as prototypes that describe and prescribe the attributes (perceptions, beliefs, attitudes, values, feelings, and behaviors) that characterize one group and its members and differentiate it from relevant other groups and their members.

When we categorize people as group members, we perceptually depersonalize them in terms of their group's prototype, viewing them stereotypically and creating stereotype-consistent expectations about their attitudes and behavior. When we categorize ourselves, precisely the same process occurs; we depersonalize ourselves in terms of our in-group prototype. The relatively idiosyncratic and individuated self is transformed into a collective self that shares prescriptive group attributes with fellow group members—we conform to and internalize group norms, define ourselves in group terms, and feel a sense of belonging and identification with our group.

In this way group identification successfully reduces self-related uncertainty. It furnishes a sense of who we are that prescribes what we should think, feel, and do. Because self-categorization is inextricably linked to categorization of others, it also reduces uncertainty about how *they* will behave and what course social interaction will take. This process also provides consensual validation of our worldview and sense of self, which further reduces uncertainty. Because people in our group tend to share our prototype of "us" and of "them," our expectations about the prototype-based behavior of others often tend to be confirmed, and our fellow group members agree with our perceptions, beliefs, attitudes, and values and approve of how we behave.

Overall, group identification is a very effective mechanism for reducing and managing self-uncertainty. When people feel uncertain about themselves or things reflecting on self, they "join" new groups (e.g., join a church) or identify with or identify more strongly with groups they already "belong" to (e.g., one's religion).

Entitativity and Belonging. A number of laboratory studies provide evidence that people categorized as group members identify more strongly with their group when uncertainty is elevated (e.g., Grieve & Hogg, 1999; Hogg & Grieve, 1999; Mullin & Hogg, 1998, 1999; Reid & Hogg, 2005; also see Hogg, 2000, 2007) and that identification reduces uncertainty (e.g., Hogg & Grieve, 1999; Mullin & Hogg, 1998; also see McGregor, Nail, Marigold, & Kang, 2005; McGregor, Zanna, Holmes, & Spencer, 2001).

Identification reduces uncertainty because it furnishes a sense of who we are, how we should behave, and how others will treat us. However, groups differ in how clear and unambiguous an identity they provide—and thus in how effectively they reduce uncertainty. High entitativity groups have attributes better suited to self-uncertainty reduction (Hogg, 2004, 2005b), where entitativity is that property of a group, resting on clear boundaries, internal homogeneity, social interaction, clear internal structure, common goals, and common fate, that makes a group "groupy" (D. T. Campbell, 1958; Hamilton & Sherman, 1996; Lickel et al., 2000).

An unclearly structured low entitativity group with indistinct boundaries, ambiguous membership criteria, limited shared goals, and little agreement on group attributes does a poor job of reducing or fending off self-uncertainty. In contrast, a clearly structured high entitativity group with sharp boundaries, unambiguous membership criteria, tightly shared goals, and consensus on group attributes does an excellent job fending off self-uncertainty. Identification reduces uncertainty because self is governed by a prototype that prescribes cognition, affect, and behavior. Prototypes that are simple, clear, unambiguous, prescriptive, focused, and consensual are more effective than those that are vague, ambiguous, unfocused, and dissensual. Clear prototypes are more likely to be grounded in high than low entitativity groups.

High entitativity groups may also encourage essentialism (Rothbart & Taylor, 1992)—the attribution of properties of individuals or groups to invariant underlying qualities or essences (e.g., Haslam, Bastian, Bain, & Kashima, 2006; Haslam, Rothschild, & Ernst, 1998). Thus, the more "groupy" a group is perceived to be, the more people view its attributes as immutable and fixed, possibly reflecting biology and genetics. Because essentialism imparts the illusion of immutability to groups, it further renders entitative groups highly effective in reducing and fending off uncertainty.

Uncertainty-identity theory predicts that under uncertainty people identify more strongly with high than low entitativity groups; they seek out highly entitative groups with which to identify or work to elevate, subjectively or actually, the entitativity of groups to which they already belong. A number of studies have indirectly confirmed this prediction (e.g., Castano, Yzerbyt, & Bourguignon, 2003; Jetten, Hogg, & Mullin, 2000; Yzerbyt, Castano, Leyens, & Paladino, 2000). Direct and decisive evidence comes from two studies by Hogg, Sherman, Dierselhuis, Maitner, and Moffitt (2007), in which participants identified most strongly with their political party (Study 1) or their task group (Study 2) when self-uncertainty had been primed and they considered the group to be highly entitative, and from two studies by Sherman, Hogg, and Maitner (2009) in which self-uncertain political party supporters and grocery workers on strike perceptually polarized their in-group to accentuate its perceived entitativity.

There is a twist to the uncertainty–entitativity argument. If you feel you do not fit into and find it difficult to be accepted by a highly entitative group, then self-uncertainty may actually weaken identification with that group as the group is unlikely to reduce uncertainty. There is some evidence for this from the Hogg et al. (2007) studies above and more robust evidence from three studies by Hogg, Meehan, Parsons, Farquharson, and Svensson (2009).

True Believers and the Mantle of Ideology. Where self-uncertainty is acute or enduring and relates to core aspects of self-conception, people may go further, identifying strongly as "true believers" (Hoffer, 1951), zealots, or fanatics with groups that are not just entitative but "extreme" (Hogg, 2004, 2005b, 2007; also see Hogg & Blaylock, in press). Such groups would have very clearly defined attitudinal and behavioral attributes, probably integrated by an inflexible ideology. They would have impermeable and carefully policed boundaries and markedly ethnocentric intergroup attitudes. Internal dissent and criticism would be discouraged and punished; consensus and uniformity would be enforced by powerfully legitimated authorities within the group. Such groups would be what Kruglanski, Pierro, Mannetti, and De Grada (2006) called "group-centric" and might engage in dehumanization of out-groups and in-group dissenters (Haslam, 2006; Haslam, Loughnan, & Kashima, 2008) and behave in ways that resemble collective narcissism (Golec de Zavala, Cichocka, Eidelson, & Jayawickreme, in press). They would, according to the social identity theory of leadership, defer to their leaders as the ultimate arbiters of group prototypicality and embodiments of the group's ideology and normative practices and follow their leaders virtually anywhere (Hogg, 2001, 2005a, 2008; Hogg & van Knippenberg, 2003).

In the context of extreme self-uncertainty, associated with widespread societal uncertainty (e.g., economic crisis, terrorism, natural disaster) or more personal uncertainty (e.g., adolescence, unemployment, divorce), these generic attributes of "extreme" groups can be highly appealing. Extreme groups furnish members with an all-embracing, rigidly defined, exclusive, and highly prescriptive social identity and sense of self, a comforting sense of certainty in an uncertain world.

There is a substantial literature associating societal uncertainty with various forms of extremism, including genocide (Staub, 1989), nationalism and blind patriotism (Billig, 1982; Staub, 1997), authoritarianism (Doty, Peterson, & Winter, 1991), ideological thinking (Lambert, Burroughs, & Nguyen, 1999), and terrorism (Moghaddam & Marsella, 2004). Of most relevance here is research associating uncertainty with religious fundamentalism (e.g., Altemeyer, 2003; Batson et al., 1993; Herriot, 2007; Kimball, 2002; Lewis, 2004; McGregor, Haji, Nash, & Teper, 2008; Rowatt & Franklin, 2004; Savage & Liht, 2008). Uncertainty-identity theory specifies the psychological mechanism that may be responsible for translating uncertainty into "extremism."

A particularly relevant feature of "extreme" groups that serves a powerful uncertainty reduction function is that they have ideological belief and value systems, or worldviews. These provide a circumscribed explanatory universe (Billig, 1982; Larrain, 1979; Thompson, 1990) that anchors group identity in a firm and unassailable foundation of certitude that also renders behavioral practices meaningful. Ideological orthodoxy prevails (Deconchy, 1984) and is protected by suppression of criticism (Hornsey, 2005) and marginalization of deviance (Hogg, Fielding, & Darley, 2005; Marques, Abrams, & Serodio, 2001). Ideological orthodoxy is particularly appealing in a postmodern world of moral relativity and "limitless" choice (Dunn, 1988; also see Barber, 1995; Baumeister, 1987; Gergen, 1991)—ideology reduces uncertainty (cf. Van den Bos, in press).

Uncertainty, Social Identity, and Religion

Uncertainty-identity theory is a general account of how group identification satisfies a basic human motivation to reduce feelings of self-related uncertainty, how some group properties are better suited to uncertainty reduction than others, and why group extremism can sometimes be psychologically adaptive. It has direct relevance as an explanation of religion. As discussed earlier, we define a religion as a social group defined by a shared ideology and worldview that invokes the sacred in addressing not only the nature of existence but also daily moral practices and wider behaviors, customs, and rituals (cf. Kimball, 2002). Religious people are those who identify with a religion and thus define themselves in religious terms, adhere to its ideology and worldview, and conform to its behavioral prescriptions.

From time to time, people ponder the meaning of existence and the universe and tussle with absolute criteria for what is right and wrong and how to be, and live life as, a

"moral" being. For some people, and at some junctures in our lives, this quest to know who one is and how one should behave in the context of existence, and absolute morality can be extremely important and self-relevant. Herein lies a problem; the quest is intrinsically uncertain—there are no objectively correct or scientifically verifiable answers to such questions (Dawkins, 2006). Although people can and do find their own spiritual path, overwhelmingly the answers and the path are provided by the world's diverse religions—they provide an explanatory ideology and worldview that relates to both the sacred and the secular and shared rituals, behavioral conventions, and normative values and beliefs. Identification with such a group reduces uncertainty in precisely the way described by uncertainty-identity theory.

Furthermore, most religions are well equipped to provide consensual validation of one's religious identity and associated worldview. For example, distinctive dress, religious ritual, church-related activities, and collective prayer routines all provide structure that pervades life and validates social identity. Religions can be highly entitative.

Religious Ideologies and Normative Practices. Religious ideologies are in many ways archetypal ideologies (see Larrain, 1979; Silberman, 2005; Thompson, 1990) that are remarkably effective at reducing uncertainty and anchoring self in religious identity. Although religious worldviews may feel personal, in reality they are shared belief systems grounded in consensus circumscribed by group membership—it is this group consensus that lends an ideology its comforting sense of infallibility and absolute correctness. Lack of consensus within a group undermines entitativity, raises uncertainty, and motivates influence and self-categorization processes to reestablish consensus, reduce uncertainty, and reanchor identity (e.g., McGarty, Turner, Oakes, & Haslam, 1993; also see Hogg & Smith, 2007).

Religious ideologies have a greater explanatory reach than most other ideologies because they address questions of existence, ultimate causality, and absolute morality (Myers, 2000; Spilka, Hood, Hunsberger, & Gorsuch, 2003; Spilka, Shaver, & Kirkpatrick, 1985). Because there are no objectively correct or scientifically verifiable answers to such questions, religious ideologies invoke a rich symbolic and supernatural universe relating to sacred and sanctified people, places, and objects, with the sacred nature of God and the divine imparting purpose and legitimacy to beliefs, expectations, and goals and prescribing appropriate emotions and behaviors (e.g., Pargament et al., 2005; Silberman, 2003, 2004).

Religions not only provide sophisticated and well-developed ideologies and worldviews (Batson et al., 1993; Baumeister, 1991; Emmons, 2005; McIntosh, 1995; Pargament, 1997, 2002; Park, 2005; Silberman, 2003, 2004) but also specify normative practices relating to daily life; although the framing, to varying degree, is in terms of the sacred or divine, the focus is on everyday life choices and behavioral routines. For example, most religions subscribe to the just world hypothesis, that good things happen to good people (the just should be rewarded) and bad things to bad people ("sinners" should be punished; Furnham, 2003), and prescribe virtuous human behaviors such as altruism and generosity (Batson et al., 1993; Schwartz & Huismars, 1995).

Uncertainty and Religiousness. Overall, religions function as powerful, all-encompassing ideological systems that impart meaning and purpose to existence and daily life (Higgins, 2000) and prescribe identity-defining normative practices relating to moral choices, sacred observances, and daily living. They are meaning-making frameworks and moral compasses that serve basic psychological needs ranging from existential meaning to social identification and connection and a sense of certainty and stability (Pargament, 1997; Spilka et al., 1985). This is precisely what can make a religion an entitative group with enormous power to reduce self-uncertainty. Not surprisingly, research shows that religious identification and adherence to a religious ideology help "believers" deal with stress, anxiety, and trauma (Oman & Thoresen, 2005; Park, 2005).

There is substantial evidence that people turn to religion when times are uncertain or when they feel uncertain about themselves and their worldviews. For example, Laurin, Kay, and Moscovitch (2008) found that people whose beliefs in personal control (i.e., a nonrandom world) were threatened reported stronger beliefs in the existence of a controlling God. Another example is a pair of studies by Van den Bos, Van Ameijde, and Van Gorp (2006). Elevated personal or self uncertainty led participants to be more protective of their religious beliefs and identity, and the effect was most pronounced among more religious individuals for whom religious identity was most central and relevant to self-definition.

There is also neural evidence for an association between religiousness and reduced uncertainty (Inzlicht, McGregor, Hirsh, & Nash, 2009). Inzlicht and associates (2009) found evidence for reduced reactivity in the anterior cingulate cortex (a cortical system involved in the experience of anxiety and important for self-regulation) among participants with greater religious zeal and a stronger belief in God. The authors concluded that religious conviction provides a framework for understanding and acting within one's environment, thereby acting as a buffer against anxiety and minimizing the experience of uncertainty. This corresponds to survey data reported by Puffer et al. (2008); among 604 religious adolescents, religious certainty was positively associated with religious satisfaction.

These findings of religious identification and related phenomena in response to uncertainty are consistent with numerous uncertainty-identity theory studies mentioned above, not specifically focused on religion, that show people identify more strongly with groups when they are uncertain, particularly about or related to self (which makes the uncertainty more important and motivating), and when the group

is structured in such a way as to optimize uncertainty reduction (i.e., it has high entitativity; for an overview, see Hogg, 2000, 2007; cf. Van den Bos, in press). A more directly relevant set of studies, described in greater detail below, found that national identification was significantly stronger among people primed to be existentially uncertain (uncertain about the afterlife) than those primed to be certain there either was or was not an afterlife (Hohman & Hogg, 2009).

From Religiousness to Fundamentalism. Religions, like other groups, vary in how extremist their structure, ideology, and normative beliefs and practices can be considered. Although most religions and most religious people are not extremists, religious extremism has always been with us and has caused great human suffering (e.g., Dawkins, 2006; Juergensmeyer, 2000).

Scholars have noted that when religious ideologies and moral principles are grounded in highly structured and distinctive religious groups, they can gain extraordinary power and significance and can assume the status of unassailable and undeniable truths that are rigidly prescriptive and unchanging (Bar-Tal, 2000; Durkheim, 1912/1954; Eidelson & Eidelson, 2003; Moscovici, 2000). Religion can facilitate, even encourage, a stark dichotomy between right and wrong that "believers" use as a framework for understanding themselves, others, and the world they live in and as a basis for rewarding the "righteous" and punishing the "immoral" (e.g., Silberman, 2005).

Strong religious identification and the belief that the in-group's worldview and associated practices are entirely superior and more absolutely moral than those of out-groups generate profound ethnocentrism associated with in-group protective and promotive intergroup behaviors (cf. Hunsberger & Jackson, 2005). These behaviors can become extreme (e.g., intolerance, domination, violence) and can conflict with other, more tolerant ideology tenets—however, such contradictions can be subtly nuanced and easily papered over, justified, and legitimized with reference to the sacred (Silberman, Higgins, & Dweck, 2005). Dissenters and outsiders are cast as evil heretics and nonbelievers who are morally bankrupt and therefore ultimately less than human (Haslam, 2006; Haslam et al., 2008).

Moral flexibility and contradiction in the context of religion (Appleby, 2000) have been demonstrated in the laboratory by Bushman, Ridge, Das, Key, & Busath, 2007). American and Dutch students read a vignette, attributed to the Bible or to ancient scrolls, describing violent retribution visited on not only the perpetrators of a rape but also a wide range of uninvolved others, including innocent men, women, children, and animals. Among participants told that God commanded this retribution, those who believed in God themselves were more likely than nonbelievers to be aggressive toward an ostensible laboratory partner. Unquestioning subservience to the moral authority of a powerful leadership figure or symbol, in this case God, reminds us of Milgram's (1963; see Blass, 2004) studies of obedience and illustrates how religious identification can produce moral contradictions that lead to extremist behavior. It is also consistent with the social identity theory of leadership's analysis, mentioned above (e.g., Hogg, 2005a).

From uncertainty-identity theory we would predict that the transformation of religiousness into zealotry and religions into radical extremist groups can be triggered by self-uncertainty. Indeed, as noted above, there is a substantial literature that associates societal uncertainty with religious extremism (e.g., Altemeyer, 2003; Batson et al., 1993; Herriot, 2007; Kimball, 2002; Lewis, 2004; McGregor et al., 2008; Rowatt & Franklin, 2004; Savage & Liht, 2008). For example, in his analysis of contemporary Islamic fundamentalism, Lewis (2004) argued that "in a time of intensifying strains, of faltering ideologies, jaded loyalties, and crumbling institutions, an ideology expressed in Islamic terms" (p. 19) is particularly appealing. Similarly, Kimball (2002) wrote, "The need for fixed stars, for certainty in the midst of our tenuous lives on a dangerously unpredictable planet, is real and understandable. Religious leaders who can package and deliver absolute truths find receptive audiences" (p. 67).

Herriot (2007) defined fundamentalism as an attempt, through reactivity, dualism, authority, interpreting select key passages of religious texts, and millennialism, to prevent religious identity from falling victim to modernity and secularism. He believed that modernity creates uncertainty, which is a necessary condition for religious fundamentalism, and wrote, "People feel they have little control over what happens to them, and cannot foresee what the future may hold. In such conditions, any social movement which offers membership, self-esteem, meaning and purpose can flourish" (p. 13). Fundamentalist groups do not target uncertainty as their enemy, rather "those aspects of secularism which more directly challenge their beliefs, values, and norms of behavior" (p. 13). Herriot's analysis invokes concepts from social identity theory, which he saw as a promising alternative explanation for research on fundamentalism.

This theme that uncertainty created by modernity plays a key role in uncertainty-induced religious fundamentalism is a recurring one. Dunn (1998) argued that rigid ideological systems are particularly attractive in a postmodern world of moral and behavioral relativities and "limitless" choice—they resolve what Dunn called the postmodern paradox. Developing on the premise that religions typically have ancient, nonmalleable worldviews and practices that conflict with modern society, Kimball (2002) believed that it is in reaction to modernity that modern religions or their members can go to extremes (orthodoxy, intolerance, violence) to protect and promote their religious identity and associated values and practices.

Finally, Armstrong (1997) noted how the sense of swirling uncertainty felt in times of national crisis and upheaval can ignite the fires of nationalistic, ethnic, and religious

fervor and how under these circumstances the secular and religious can seem fused or can be strategically fused to further the interests of specific religious or secular groups. In this way, religious fundamentalism can appear widespread. What appears to be religious extremism may actually be secular extremism, inviting the question of whether it is religion masquerading as, for example, nationalism or nationalism masquerading as religion (cf. Barnes, 2005; Juergensmeyer, 2000).

It is difficult to conduct experiments on extremism, let alone religious extremism. However, the link between uncertainty and support for radical ideologies and practices does have support from three experiments ($N = 334$) by Hogg and associates (2009). Australian students were presented with descriptions of moderate or radical campus political action groups and had their self-uncertainty measured or manipulated. Across all three studies, participants showed greater support for and identification with the radical group under elevated uncertainty and endorsed more extreme group behaviors. Other experiments by McGregor et al. (2001) found that inducing people to feel uncertain caused them to become more rigid and close minded about their attitudes, values, and group identifications and to plan to engage in more self-consistent activities.

Directly focusing on uncertainty and religious extremism, Adelman, Hogg, and Levin (2009) conducted four field studies ($N = 720$) in the religiously and politically charged context of Israel. Religious and national identity centrality were measured among Palestinian Muslims and Israeli Jews, self-uncertainty was primed or measured, and endorsement of violent social action was measured. Overall, the results showed that under high uncertainty it was those with stronger, more important, and more central national *and* religious identities who were more supportive of violent action. In this Israeli–Palestinian context, it is not surprising to find that nationalism and religiosity are closely associated—religion tends to be politicized and politics tend to be infused with religion (cf. Barnes's, 2005, analysis of the Northern Ireland situation).

Another study, by Blagg and Hogg (2009), comprised two Web-based experiments ($N = 360$) in which uncertainty was primed or measured and self-identified religious participants learned that an ostensive leader of their religion espoused a moderate or an orthodox interpretation of their religion. Religious identification and leadership evaluations and endorsement were then measured. One finding was that under uncertainty religiousness predicted support for religious leadership and the orthodoxy of the leader's message—showing, as predicted, that orthodox religious views are more likely to take hold if religiousness and uncertainty are both high.

McGregor et al. (2008) conducted two studies in which uncertainty was manipulated to investigate effects on religious conviction and zeal and on attitudes toward other religions. In Study 1 an academic uncertainty manipulation strengthened conviction for religious beliefs and support for religious warfare. In Study 2 a relationship uncertainty manipulation caused non-Muslims to derogate Islam. Further experimental support for the idea that uncertainty has the potential to sponsor religious extremism can be seen in the studies described above by Laurin et al. (2008), Van den Bos et al. (2006), and Inzlicht et al. (2009; also see the discussion and overview by McGregor, 2003; Van den Bos, in press).

Existential Uncertainty or Existential Terror? Religions differ from other groups in that their principal purpose is to address the nature of existence and the afterlife. Social psychologists have theorized the role of existential issues in human behavior primarily through terror management theory, which argues that people are terrified of dying and that, when their own death is subjectively salient, they develop or cling to monolithic ideological systems called cultural worldviews (e.g., Greenberg, Solomon, & Pyszczynski, 1997; Pyszczynski, Greenberg, & Solomon, 1999; Solomon, Greenberg, & Pyszczynski, 1991). Existential terror produces ideological orthodoxy, ethnocentrism, and other forms of extremism.

Although the motivational force of terror invoked by thoughts of one's own death is real, there is also accompanying uncertainty about what happens after one's death (i.e., existential uncertainty). In terror management studies, mortality is generally primed in such a way that existential uncertainty is also primed. The observation that perhaps cultural worldview defense and ideological thinking are sponsored more by existential *uncertainty* than existential *terror* has been made by a number of scholars (e.g., Hogg, Hohman, & Rivera, 2008; Hohman & Hogg, 2009; McGregor, 2006; McGregor et al., 2001; Van den Bos, in press; Van den Bos, Poortvliet, Maas, Miedema, & Van den Ham, 2005) and is consistent with uncertainty-identity theory. Uncertainty drives people to identify with entitative groups that are structurally, ideologically, and normatively equipped to best resolve uncertainty. Religions fit the bill. Given that large-scale uncertainties (economic crisis, unemployment, cultural change) often spill over to also focus attention on life, death, and existence, existential uncertainty frequently raises its head, and strong religious identification is omnipresent as a resolution.

Because death anxiety and existential uncertainty are concatenated in terror management studies (e.g., Solomon, Greenberg, Pyszczynski, & Pryzbylinski, 1995), terror management findings can be recruited as support for uncertainty-identity theory's analysis of religious identification and various forms of extremism, including religious extremism. A number of studies have teased apart existential terror and mortality salience on one hand and existential uncertainty and uncertainty salience on the other, to find that uncertainty has a stronger effect on worldview defense (e.g., Hohman & Hogg, 2009; Martin, 1999; McGregor et al., 2001; Van den Bos et al., 2005). For example, Hohman and Hogg (2009) reported three experiments ($N = 234$) examining the relative contribution of existential uncertainty and existential

terror in group identification, finding that existential terror (mortality salience primed) elevated national identification as American (adherence to an ideological system or cultural worldview) only when participants were also existentially uncertain. Moreover, identification with America was significantly stronger among those primed to be existentially uncertain (uncertain about the afterlife) than those primed to be certain there either was or was not an afterlife.

For an extensive and balanced discussion of the relationship between on one hand existential terror and mortality salience and on the other existential uncertainty and uncertainty salience, see Van den Bos (in press).

Summary and Concluding Comments

In this article, we defined a religion as a group like any other group, but one that is distinctive in certain important ways. Specifically, it has an ideology and worldview that not only deals with daily life but also addresses the nature of existence and the ultimate foundations of morality. In so doing it invokes the sacred and the divine and one or many supernatural or divine beings. Religion differs from spirituality in that the latter is an individual existential pursuit whereas the former is a group activity that also prescribes commonplace normative behaviors, customs, and rituals. For us, religiousness is the strength with which someone identifies with a religion and thus subscribes to its ideology and conforms to its behavioral prescriptions. Because religions champion values and practices that are universally considered honorable and decent (kindness, tolerance, compassion), it is paradoxical that intolerance, cruelty, and violence are sometimes committed in the name of religion by people who consider themselves devout and religious.

We described uncertainty-identity theory and showed both how this can explain the powerful draw of religion for humanity and why, perhaps because of this, religion can be prone to extremism and moral contradiction. The core argument is that people seek to resolve or protect themselves from feelings of uncertainty about themselves and their place in the world; the greater and more self-saturating the uncertainty, the stronger the motivation. For many people and in many circumstances, existential uncertainty and moral uncertainty are powerful forms of self-relevant uncertainty in their own right, which can also be aroused by uncertainty in other domains of life.

Group identification is a very effective resolution of self-uncertainty; the process of self-categorization provides people with a shared identity that prescribes what they should believe and value, how they should behave, and how others will treat them. It also provides consensual worldview validation from fellow group members. Cohesive high entitativity groups with self-contained ideological systems and clearly specified behavioral norms are particularly effective at self-uncertainty reduction. Many religions have these properties. They can be highly entitative, clearly structured groups with legitimate authority structures, sophisticated and well-established ideologies that speak to existential, sacred, and secular concerns, and well-defined behavioral norms and rituals. Their moral absolutes lend force to prescription of almost all aspects of people's everyday behavior.

All groups are prone to extremism under conditions of uncertainty, but religions may sometimes be more prone precisely because they have a structure and a normative and ideological reach that is extraordinarily effective in managing uncertainty. "Believers" are prepared to go to great lengths to protect and promote such a subjectively vital identity. The authority structure of many religions, including the postulation of divine entities and orthodox scriptures, can encourage relatively unquestioning obedience and failure to recognize moral contradictions.

Throughout the article we cited and discussed empirical evidence from our own and other labs for the basic processes specified by uncertainty-identity theory—evidence for the motivational function of uncertainty; for the relationship between self-uncertainty and group identification; for key moderators, in particular entitativity, of this relationship; and for the attractiveness of more radical and ideologically extreme groups. We related this to the specific instance of religious groups, citing and describing empirical and narrative research on the relationship among uncertainty, religious identification, and religious fundamentalism.

Further direct causal tests detailing the role of uncertainty in religiousness, and in particular religious extremism, as specified by uncertainty-identity theory are currently being conducted. However, the theory does provide a plausible social psychological explanation that is consistent with existing evidence and analyses. Uncertainty-identity theory generates an integrated psychological explanation for a range of phenomena, including the everyday experience and influence of religion in people's lives; the potential power of religious leaders, religious ideologies, and religious norms; the extremism of religiously based intergroup conflicts; the paradox wherein religions and religious people sometimes have to justify moral hypocrisy and harm doing; and the way that religion, and religious fervor, can be a powerful solace in times of personal and collective uncertainty.

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