

3 Religion and the Self

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People go to church for the same reasons they go to a tavern: to stupefy themselves, to forget their misery, to imagine themselves, for a few minutes anyway, free and happy.

Bakunin (1953 [1871])

We are both in agreement and in disagreement with the above claim. We agree that religion confers benefits to the self. However, we disagree with the suggestion that such benefits are ephemeral or shallow. Instead, we argue that the functions that religiosity serves for the self are long lasting and important.

We address, in this chapter, the interface between religion and the self. We ask how religiosity—defined as belief in deity and engagement in deity-worshiping practices—interjects with components of the self-system (i.e., the individual, relational, and collective self). We present briefly a theoretical framework, the *hierarchical self model*, that articulates these components. We then discuss how religiosity satisfies psychological needs that are linked to the said self-components. We conclude by arguing that the fulfillment of multiple self-needs is a key reason for the worldwide and enduring appeal of religion.

The Hierarchical Self Model

As mentioned above, the self-system entails three major components: the individual self, the relational self, and the collective self (Sedikides & Brewer, 2001a). The *individual self* represents a person's uniqueness. This type of self consists of attributes (e.g., characteristics, preferences, goals) that differentiate the person from others. This self is a distinct entity from (albeit interconnected with) dyadic relationships or group memberships. The *relational self* represents dyadic interpersonal bonds (e.g., romantic partners, close friends). This type of self consists of attributes that are shared by dyad members and may define roles within the relationship. These attributes differentiate one's relationships from the

relationships other persons have. The *collective self* represents group membership, that is, similarity and affiliation with valued groups. This type of self consists of attributes that are shared among group members and may define roles within the ingroup. These attributes differentiate one's ingroup(s) from relevant or antagonistic outgroups.

Each type of self is inherently social (Sedikides, Gaertner, & O'Mara, 2011). Also, each type of self is partly sustained through social comparison processes, namely assimilation and contrast. In particular, the individual self is compared with other persons, the relational self is compared with other relationships, and the collective self is compared with outgroups (Gaertner, Sedikides, Luke, & Iuzzini, 2008). In addition, each type of self is important to human functioning (Hawkey, Browne, & Cacioppo, 2005; Sedikides & Brewer, 2001b; Sedikides et al., 2011). For example, having a strong individual self (e.g., high self-concept clarity, personal self-esteem, or resilience), having a strong relational self (e.g., high relational self-esteem), and having a strong collective self (e.g., high collective self-esteem) is uniquely associated with psychological and physical well-being (Chen et al., 2006; Haslam, Jetten, Postmes, & Haslam, 2009; Ritchie, Sedikides, Wildschut, Arndt, & Gidron, 2011; Taylor, Lerner, Sherman, Sage, & McDowell, 2003a, b). Finally, each self is meaningful to human experience. Meaning in life can originate from personal goals (individual self), satisfying relationships (relational self), or group belongingness (collective self) (Hicks & Routledge, in press).

Nevertheless, not all selves are equally important and vital. The selves differ in their motivational potency. The individual self is more central to human experience, lies closer to the motivational core of the self-system, and reflects more pointedly the psychological "home base" of selfhood. The individual self is motivationally primary, followed in the pyramidal structure by the relational self and trailed by the collective self (Gaertner, Sedikides, & O'Mara, 2008; Sedikides et al., 2011). For example, people anticipate that their life will be more negatively impacted if they "lose" (say, through surgical removal) their individual self than either their relational or collective self (Gaertner et al., 2012, Study 1). They also feel their individual self as most true or "at home" compared to the other two types of self (Gaertner et al., 2012, Study 1). In addition, they allocate a larger monetary sum toward bettering their individual self than their relational or collective self, price the value of their individual self as higher than the value of the other two selves, and expect to receive more money for selling the individual than any of the other two selves; notably these result patterns are obtained both in Western and Eastern culture (Gaertner et al., 2012, Study 3). Finally, people attribute more goals to their individual than relational or collective self, and this is the case both in Eastern and Western culture (Gaertner et al., 2012, Study 4).

The Hierarchical Self and Psychological Needs

Many psychological needs rely, to a great degree, on the self for their satisfaction. Such needs include self-esteem (Rosenberg, 1959), control (Kelley, 1971), uncertainty reduction (Van den Bos, 2001), meaning (Park, 2010), attachment (Bowlby, 1982), and belongingness (Baumeister & Leary, 1995).

We propose that these needs are linked differentially to the three selves. The needs for self-esteem, control, uncertainty reduction, and meaning are linked predominantly to the *individual self*. The need for attachment is linked predominantly to the *relational self*. And the need for social belonging is linked predominantly to the *collective self*. The dependency of most of these needs (i.e., self-esteem, control, uncertainty reduction, meaning) for satiation by the individual self reflects the motivational primacy of this type of self. But how does each type of self meet these needs? We propose that it does so, in part, through religiosity.

Religiosity and Satisfaction of Self-Needs

We assume that religiosity stands partially in the service of need satisfaction (Sedikides, 2010a, b). We now discuss how religiosity fulfills the above mentioned self-needs.

Self-Needs and the Individual Religious Self

We posit that religiosity satisfies (in some measure) the individual-self needs for self-esteem, control, uncertainty reduction, and meaning. We now turn to illustrative empirical examples.

Self-Esteem

The idea that religiosity is partly in the service of self-esteem (or self-enhancement) was introduced by William James (1902), advocated by Gordon Allport (1950), and embellished by Batson and Stocks (2004), who stated: “Feeling good about oneself and seeing oneself as a person of worth and value play a major role in much contemporary religion” (p. 47). Two contemporary theoretical frameworks have capitalized on this idea: the religiosity as self-enhancement hypothesis and terror management theory.

RELIGIOSITY AS SELF-ENHANCEMENT HYPOTHESIS

Sedikides and Gebauer (2010) based their theoretical proposal on two assumptions. First, persons across cultures deploy an inventive array of means for elevating their self-esteem or for self-enhancement (Alike &

Sedikides, 2011; Hepper, Gramzow, & Sedikides, 2010). These means include facets of the sociocultural context (e.g., institutions, norms, values, traditions; Hepper, Sedikides, & Cai, in press; Sedikides & Gregg, 2008). Religion is typically a pivotal facet of the sociocultural context. As such, persons will likely capitalize on religion to increase their self-esteem or to self-enhance. Second, self-esteem or self-enhancement is a disposition. Religiosity, however, is largely regarded as a cultural adaptation (Saroglou, 2010). As such, self-enhancement is a more basic psychological structure than religiosity: it has chronological priority over religiosity and is likely to drive it.

According to the religiosity as self-enhancement hypothesis, self-enhancement (operationalized conventionally in terms of socially desirable responding; Paulhus & Holden, 2010), is associated with higher religiosity. In particular, the hypothesis posits that the relation between self-enhancement and religiosity is stronger in cultures that ascribe a notably positive value on religiosity. In such cultures, being religious means “being a good, moral, decent person.” It follows that people with a higher self-enhancement need (i.e., those scoring higher on socially desirable responding) will satisfy this need through greater levels of religiosity.

The hypothesis was confirmed in a meta-analysis (Sedikides & Gebauer, 2010) examining both macro-level culture and micro-level culture. Macro-level culture involved countries varying in religiosity (from higher to lower: USA, Canada, UK). Micro-level culture involved US universities varying in religiosity (from higher to lower: religious universities, secular universities). The relation between self-enhancement and religiosity was stronger in cultural contexts that placed particularly high value on religiosity. That is, this relation was stronger in the US than in Canada than in the UK, and it was also stronger in religious than secular US universities. In all, this meta-analysis, alongside an earlier relevant meta-analytic synthesis (Trimble, 1997), presents evidence consistent with the idea that religiosity partially realizes self-enhancement or self-esteem concerns.

A survey of 11 European nations offered additional support to the religiosity as self-enhancement hypothesis (Gebauer, Sedikides, & Neberich, 2012). In particular, believers’ social self-esteem was higher than that of non-believers in countries that bestowed relatively high merit on religiosity. In contrast, believers’ and non-believers’ social self-esteem did not differ in countries that bestowed relatively low merit on religiosity.

Another demonstration of the relevance of cultural context for religiosity can be found in research linking culture to religiosity through personality (Gebauer, Paulhus, & Neberich, in press). This research focuses in part on agentic persons, that is, persons with a chronically high need for uniqueness (e.g., independence, ambition, competence; Abele, Cuddy, Judd, & Yzerbyt, 2008; Bakan, 1966). Agentic persons,

then, derive self-esteem from their uniqueness. This need for uniqueness would be best satisfied through religiosity in cultures that are non-religious: it is in those cultures that an agentic person would feel set apart from others. Agentic persons, then, would be most religious in non-religious countries. However, agentic persons would be least religious in religious countries: in those cultures, agentic persons would feel similar to others and, hence, their need for uniqueness would be stifled rather than nurtured. The results of a large-scale survey were consistent with these predictions (Gebauer et al., in press).

TERROR MANAGEMENT THEORY

Evidence for the idea that religiosity partially satisfies self-esteem concerns is also supplied by research on terror management theory (Greenberg, Pyszczynski, & Solomon, 1986; Vail et al., 2010). This theory proposes that a major function of religion is to assuage existential concerns that arise from humankind's awareness of their mortality. Religion soothes fear of death via literal and symbolic immortality. Literal immortality refers to promises for afterlife. Symbolic immortality refers to the cultural or religious worldview (e.g., norms, values, contributions or achievements) that transcend one's physical demise.

People strive to live up to the standards of value prescribed by the cultural or religious worldview. This sense of value is what terror management theory refers to as self-esteem. Self-esteem, then, allows people to manage existential or death anxiety and affords psychological equanimity. Religion serves to lift self-esteem.

Several lines of research are relevant to the propositions of terror management theory. One such line brings to the fore the problem of death by reminding participants in the experimental condition of their own mortality ("Briefly describe the emotions that the thought of your own death arouses in you" and "Jot down, as specifically as you can, what you think will happen to you physically as you die and once you are physically dead") while reminding participants in the control condition of an aversive experience (e.g., dental pain, exam failure). This is known as the *mortality salience manipulation*. Compared to their control condition counterparts, participants who receive the mortality salience manipulation:

- show an increase in beliefs in afterlife (Osarchuk & Tatz, 1973)
- report higher anxiety when using a respected religious symbol (i.e., a crucifix) in an irreverent manner (Greenberg, Simon, Porteus, Pyszczynski, & Solomon, 1995)
- manifest unaltered levels of self-esteem, provided that ostensible scientific evidence has proved the existence of afterlife (Dechesne et al., 2003).

In addition, challenges to religious belief (e.g., arguing in favor of evolution, highlighting inconsistencies in the Bible) increase death-related thoughts, but not other types of thought, among believers (Friedman & Rholes, 2007).

Another line of research demonstrates that mortality salience augments faith in deity, possibly also deity of other religions. Persons may view deities of other religions as different manifestations of the deity (or deities) of their own religion. As such, other deities are appealing, because they increase the plausibility of faith in one's own deity. Deities are gatekeepers to an afterlife. Indeed, mortality salience increases among participants of Christian background the endorsement and perceived gravitas of scientific articles that presumably furnish support for the effectiveness of prayer not only to the Christian God, but also to the Buddha and shamanic spirits of faith; this effect, however, is observed for believers only (Norenzayan & Hansen, 2006; see also Vail et al., 2012). More generally, deities and norms will impact on one's behavior only when they are incorporated in one's worldview. Rothschild, Abdollahi, and Pyszczynski (2009) illustrated elegantly this point. They found that, following mortality salience, persons high on religious fundamentalism (e.g., American Christian and Iranian Shiite Muslim) became more compassionate but only when compassionate values were embedded in a religious framework (i.e., respectively, Bible and Koran). Such persons, however, were unaffected on compassion by mortality salience, when compassionate values were portrayed in a non-religious context.

Still a third line of research (Jonas & Fischer, 2006) shows that religiosity conduces to religious persons' management of their fear of death. Following mortality salience, persons low on religiosity engage in worldview defense, whereas persons high on religiosity refrain from worldview defense especially when they had the opportunity to affirm their religiosity. In addition, religiosity affirmation, following mortality salience, reduced death-thought accessibility but only for persons high on religiosity. Religiosity affirmation, then, decreased the implementation of terror management defenses and death-thought accessibility among the faithful. In all, research inspired by terror management theory establishes that religiosity helps people cope with the problem of death, and it does so in part by bolstering their self-esteem.

Control

We begin by distinguishing between personal and compensatory control. The need for personal control refers to the belief that one can predict, influence, and direct present and future events in a desired manner. Personal control protects from the anxiety resulting from randomness and disorder. Compensatory control, by the same token, functions to

maintain nonrandomness and order even in the absence of personal control—the former substitutes for the latter.

Personal control underlies religiosity. Specifically, low personal control stirs an upsurge in religiosity. This effect has been illustrated in the laboratory. Participants in the experimental condition are instructed to “think of something positive that happened to you in the past few months that you had absolutely no control over” and to “describe this event in more than 100 words.” Participants in the comparison condition are instructed to think of a positive event over which they had control and describe it accordingly. This manipulation decreases personal control without influencing mood or self-esteem. Subsequently, participants state their level of religiosity—specifically, their beliefs in a controlling deity (e.g., “to what extent do you think that the events that occur in this world unfold according to God’s plan?”). Participants in the experimental condition report stronger beliefs in God’s existence (Kay, Gaucher, Napier, Callan, & Laurin, 2008). In a similar vein, participants primed with words that denote uncontrollability (e.g., “random,” “uncontrollable”) report stronger beliefs in God compared to participants primed with words that denote negativity (e.g., “terrible,” “slimy”) (Kay, Moscovitch, & Laurin, 2010).

The upsurge in religiosity is indeed due to decrease in personal control. For example, the abovementioned personal control manipulation (Kay et al., 2008) yields stronger beliefs in God when God is thought to exert a mighty controlling influence on the universe. Also, personal control undermines perceptions of order, and this undermining in turn raises belief in God (Kay et al., 2008). Finally, both direct anxiety inductions—through loss of personal control in a highly stressful situation (Laurin, Kay, & Moscovitch, 2008) or through swallowing a pill purported to create anxiety (Kay et al., 2010)—lead to firm beliefs in the existence of a controlling deity.

Compensatory control also underlies religiosity (Shepherd, Kay, Landau, & Keefer, 2012). This type of need for control is satisfied by having faith in institutions that represent consistency and structure (Antonovsky, 1979; Rothbaum, Weisz, & Snyder, 1982). If one type of institution (e.g., government) fails to restore order and structure, another type of institution (e.g., religion) will come to the rescue. In that case, faith will rest on deities who are in charge of earthly endeavors and can intervene appropriately.

This idea has received empirical support. Participants who learn that their government is about to fall requiring urgent elections (vs. their government is stable with no elections required) declare firmer beliefs in the existence of a controlling God. The same pattern is obtained when participants learn that their government is failing to procure control and order to its citizens. Finally, beliefs in a controlling deity become stronger before a national election (when the government is unstable) than

after a national election (when the government is stable) (Kay, Shepherd, Blatz, Chua, & Galinsky, 2010). In all, religiosity fulfills the needs for both personal and compensatory control.

We would like to refer to another type of control, impulse control (i.e., delayed gratification). Research has started to show that religious individuals are characterized by good impulse control (McCullough & Willoughby, 2009; see also Burris & Petrican, Chapter 5, this volume). For example, religiosity is positively related to the relinquishment of smaller rewards in the present in favor of larger awards in the future (Carter, McCullough, Kim, Corrales, & Blake, 2012). Also, experimental inductions of religiosity in men decrease both impulsivity and their motivation to display their physical prowess. In this research, male participants who were primed with religious concepts (e.g., implicit exposure to religious words, reading argument for the existence of afterlife, writing religion-relevant essays) became less impulsive with money and physical endurance on a manual (i.e., hand gripping) task (McCullough, Carter, & DeWall, & Corrales, 2012). The impulse control benefits of religiosity are partly due to the higher state of self-monitoring that it induces. That is, religious people monitor closely their goals, as they believe that they are monitored not only by others but also by God. Self-monitoring, in turn, is positively linked to impulse control (Carter, McCullough, & Carver, in press).

Uncertainty Reduction

Uncertainty about the self and the world can breed religiosity. A case in point is religious participants who are either dispositionally uncertain or transiently (i.e., through priming) uncertain. These participants, compared to their relatively certain counterparts, express strong support for a religious leader who endorses an orthodox (rather than moderate) view of their faith (Blagg & Hogg, 2012). However, uncertainty per se may not be sufficient to bolster religiosity. Dispositionally and transiently uncertain participants react angrily toward highly critical statements about their religion only when these participants consider uncertainty as a personally threatening emotional experience (Van den Bos, Van Ameijde, & Van Gorp, 2006).

Moreover, uncertainty can spawn religious extremism. Anecdotal observations or interviews point to periods of cultural uncertainty as giving rise to radical forms of religiosity (Armstrong, 2000; Stern, 2003). Experimental research buttresses this point. Regardless of how participants are made transiently uncertain (i.e., through either an academic uncertainty or a relational uncertainty manipulation), they report heightened religious conviction, more acute derogation of a religion perceived as rival to their own, and more fervent support for religious warfare (McGregor, Haji, Nash, & Teper, 2008). Furthermore, participants

with stronger religious identities are more supportive of violent action (Hogg & Adelman, in press).

Reactive approach motivation is a mechanism that steers uncertainty to religious extremism (McGregor, Nash, Mann, & Phills, 2010). Threat (accompanied by anxiety) stemming from uncertainty engenders heightened vigilance about the threat domain, thus giving way to a preparatory fight (e.g., dispute, argue) or flight (e.g., rationalize, withdraw) reaction as well as to alternative means for protection. Identification and selection of such a means instigates approach motivation, a surge toward that means, and, in the end, a restoration of certainty. As such, uncertainty-caused reactive approach motivation may express itself as extremism or, as the case may be, religious extremism.

Not only uncertainty, but also certainty (about the world), is related to religiosity. This is the other side of the equation. To explicate, religious certainty is positively linked to religious satisfaction (Puffer et al., 2008). Also, religious conviction soothes brain centers linked to anxiety underlying uncertainty. For example, religious devotees manifest decreased reactivity in the anterior cingulate cortex, a cortical structure implicated in the experience of anxiety and in self-regulation (Inzlicht, McGregor, Hirsh, & Nash, 2009). In all, religious conviction insulates the faithful from a drop in their feelings of uncertainty (McGregor, 2006).

Meaning

Religiosity is thought to satisfy the human quest for meaning (Baumeister, 1991; Park, 2005). It is considered an aid to the comprehension of the deepest existential problems (Geertz, 1966), of the core issues surrounding the self, the world, and their interplay (McIntosh, 1995), and of both mundane and extraordinary circumstances (Spilka, Hood, Hunsberger, & Gorsuch, 2003). Religiosity is also regarded as a gateway to understanding loss and suffering (Kotarba, 1983).

Religiosity helps to cope with traumatic life events and regain meaning in life (Wortmann & Park, 2011). To begin with, religion is implicated in appraising the meaning of various stressors. For example, a portion of spinal cord injury victims (Bulman & Wortmann, 1977) as well as bereaved college students (Park & Cohen, 1993) attribute their predicament to a caring and loving God. Religiosity also influences coping with stressors through religious reappraisal, such as prayer, religious support, and religious forgiveness (Pargament, Koenig, & Perez, 2000). In addition, religiosity partakes in reappraising the meaning of stressors by refocusing the individual on seeking positive implications and by purveying the forum for benign attributions (Park, Edmondson, & Blank, 2009), which can be psychologically beneficial (Emmons, Colby, & Kaiser, 1998).

Yet, sometimes overwhelmingly stressful life events occur that render people incapable of coping and shatter their sense of meaning. In those occasions, people will resort to any of a variety of behaviors or strategies in their attempt to re-establish meaning. They may come to see God as less powerful, see the devil as more powerful, or see themselves as sinners (Pargament, 1977). They may feel victimized, perceive God as cruel, experience and direct anger toward God, and hold God responsible for their plight (Exline, Park, Smyth, & Carey, 2011). They may switch to another congregation or denomination (Paloutzian, Richardson, & Rambo, 1999). They may become agnostics or atheists (Pargament, 1997). Or, on the other end of the continuum, they may rededicate themselves to their faith and pledge even higher devotion to it (Emmons et al., 1998). This is a rather bewildering set of behaviors and strategies, and a task of future research would be to sort out which strategies are likely to be undertaken by whom and when. We will speculate on this issue in the following section.

In all, there is some evidence that religiosity serves a meaning function. However, more rigorous research is necessary to establish this otherwise plausible and intuitive function of religiosity. For example, experimental studies would need to induce meaninglessness and assess ensuing levels of religiosity among the faithful. Furthermore, meaninglessness would need to be distinguished empirically from other “competing” mechanisms, such as low self-esteem, weak personal control, and uncertainty.

Self-Needs and the Relational Religious Self

The innate attachment behavioral system motivates humans to seek proximity to significant others especially in times of distress (Bowlby, 1982). These significant others are called attachment figures. God qualifies as a crucial such figure (Freud, 1961 [1927]; Kirkpatrick, 2005).

In surveys, believers state that having a relationship with God best describes their view of faith (Gallup & Jones, 1989). The notion that one can have a personal relationship with God is well-established in theistic religions (Granqvist & Kirkpatrick, 2008), and belief in such a relationship predicts lower loneliness (Kirkpatrick, Shillito, & Kellas, 1999). Also, this relationship resembles a classic attachment bond. God is seen as benevolent (e.g., warm hearted, comforting, and caring about one’s safety), omnipotent (e.g., always available for one’s comfort and protection), and omniscient (e.g., all knowing) (Gorsuch, 1986; Tamayo & Desjardins, 1976). In addition, God is also seen as emotionally similar, that is as sharing higher level and otherwise uniquely human emotions (Demoulin, Saroglou, & Van Pachterbeke, 2008). Moreover, believers strive to maintain proximity to God, as they would to an attachment figure. They maintain proximity to God through singing, visiting the

place of worship (God's home), praying, talking to, or being emotionally involved with God.

When surveyed, theists who hold an accepting image of God report that their belief is motivated by the need for attachment (Gebauer & Maio, 2012, Study 4). Experimental studies corroborate this point further (Gebauer & Maio, 2012, Studies 1–3). Participants who read bogus proof for God's existence (compared to those who do not do so) indicate stronger belief in deity, especially when they imagine God as accepting. However, this pattern is cancelled out when these participants' attachment need is met a priori through exposure to primes of a close other. Finally, theists who chronically imagine God as rejecting manifest reduced desire for closeness with God, which in turn leads to lower stated likelihood of religious practices.

Importantly, as an attachment figure, God offers a safe haven in times of distress or threat. In those times (e.g., physical illness or injuries, death of a loved one, separation from close others), people may turn to God through prayer (Argyle & Beit-Hallahmi, 1975) or by reinforcing their religiosity (Brown, Nesse, House, & Utz, 2004). Personal crises also may sometimes precipitate religious conversion (Kirkpatrick, 2005). In addition, subliminal exposure to threatening words (e.g., "death," "failure") activates the concept of God (Granqvist, Mikulincer, Gewirtz, & Shaver, 2012), and subliminal exposure to separation threat (e.g., "mother is gone") strengthens the desire to be close to God (Birgegard & Granqvist, 2004).

In the preceding *meaning* section, we stated that, under overwhelming crises, the faithful manifest an impressive repertoire of reactions ranging from deepening their belief in God (Emmons et al., 1998) through being angry at God (Exline et al., 2011) to abandoning God (Pargament, 1997). We speculate that which reaction the faithful will manifest may depend on the specific attachment style they hold regarding God (Rowatt & Kirkpatrick, 2002). Secure attachment to God may be related to a deepening of one's religiosity, an anxious attachment style may be linked to anger toward God, and an avoidant attachment style may be associated with distancing from God.

Regardless, the proposition that God is an attachment figure is also supported by responses to perceived separation from God. Typical responses following separation from close others involve protest about the breakup of the relationship, despair about one's present state or future prospects, and reorganization of one's emotional life (Shaver & Fraley, 2008). Perceived separation from God involves protestation (reminiscent of Jesus's proclaim from the cross "My God, My God, why hast Thou forsaken me?"), felt as torturous (referred to as "wilderness experience" or "a dark night of the soul;" St. John of the Cross, 1990), and may herald adherence to alternative worldviews such as other denominations, agnosticism, or atheism (Pargament, 1997). In all, the self-need

for attachment to a caring, powerful, and omnipresent other can be met through religiosity and, in particular, through God as attachment figure. (For a discussion of developmental trajectories in the relational religious self, see Granqvist, Chapter 13, this volume.)

Self-Needs and the Collective Religious Self

Durkheim (1965 [1915]) observed that shared social practices, or the worshipping of the group, is the aim of religiosity. He famously stated that “to its members [society] is what a god is to his worshippers” (p. 237). Indeed, people agree strongly with “enjoy the religious services and style of worship” as a reason for joining a faith (Pew Research Group, 2011).

We argue that religiosity satisfies the human need for social belonging through several channels. To begin with, social exclusion activates the need to belong, which, in turn, sparks religiosity. Immigrants who experience social exclusion report higher levels of religiosity than their compatriots in the home country, controlling for socioeconomic status (Aydin, Fischer, & Frey, 2010, Study 1). The results of several experimental studies converge with this empirical pattern. Feelings of social exclusion are induced by asking participants to write about an incident in which they were socially excluded; in the control conditions, participants write about an incident in which they are accepted or just record their daily activities. Social exclusion generates stronger religiosity—in terms of both belief and intended practices (Aydin et al., Studies 2–4). Similarly, chronically or transiently lonely persons (who presumably feel socially excluded) report higher religiosity, an effect that cannot be accounted for by negative affect (Epley, Akalis, Waytz, & Cacioppo, 2008).

Moreover, religiosity strengthens one’s social identity (Ysseldyk, Matheson, & Anisman, 2010). Religious identification is special, as it offers eternal membership to a sacred mission and accompanying psychosocial value. Religious identification is maintained and reinforced through collective rituals such as singing and dancing—rituals that may foster liking, trust, cooperation, and self-sacrifice (Wiltermuth & Heath, 2009). These rituals and communal participation may be linked to group morality, and in particular to such values as ingroup/loyalty, authority/respect, and purity/sanctity (Graham & Haidt, 2010).

Culture can also shape the way in which religiosity satisfies the need for social belonging. An example is research that links culture to religiosity through personality (Gebauer et al., in press). Communal persons have a high need for social belonging (e.g., interdependence, warmth, social propriety; Abele et al., 2008; Bakan, 1966). This need would be best fulfilled through religiosity in cultures that are religious: it is in those cultures that communal person would feel similar to others. It follows that communal persons would be most religious in religious

countries. However, such persons would be least religious in non-religious countries: in those cultures, they would feel least similar to others and, hence, their need for social belonging would be thwarted. These predictions were empirically backed (Gebauer et al., in press).

Increased social belongingness as a function of religiosity is associated with higher psychological health (Ysseldyk et al., 2010; see also Hayward & Krause, Chapter 12, this volume) and a more magnanimous response to subsequent provocations having to do with social rejection (Aydin et al., 2010, Study 5). However, the social belongingness function of religiosity is also associated with negative social consequences such as racial intolerance, prejudice, and discrimination against members of other religions (Bulbulia & Mahoney, 2008; Hall, Matz, & Wood, 2010; Widman, Corcoran, & Nagy, 2009; Ysseldyk et al., 2010) and against atheists (Gervais, Shariff, & Norenzayan, 2011; Harper, 2007; Jackson & Hunsberger, 1999; Johnson, Rowatt, & LaBouff, in press).

Broader Considerations

In this final section of the chapter, we provide a synopsis, discuss unresolved issues surrounding our approach, and discuss how the cultural level of analysis can inform our approach.

Synopsis

We acknowledged that religion is a multiply determined and, for some, an intractable phenomenon. Religion, as this volume illustrates, can be approached from an assortment of perspectives and levels of analyses, such as the neuronal, psychological, group, societal or cultural, interethnic, and evolutionary. We focused in this chapter on the psychological level of analysis and adopted a self-needs perspective.

Our point of departure was the hierarchical self model (Sedikides et al., 2011). The model distinguishes between three fundamental self-components: the individual self, the relational self, and the collective self. The model further states, and is propped by evidence, that the individual self sits at the top of the hierarchy, followed by the relational self, and trailed at the bottom by the collective self (Gaertner et al., 2012). We posited that each self is associated with different psychological needs. The individual self is associated with the needs for self-esteem, control, uncertainty reduction, and meaning. The relational self is associated with the need for attachment. Finally, the collective self is associated with the need for social belonging. More importantly, we suggested that each type of self meets these needs through religiosity. We proceeded to argue and show that religiosity satisfies (a) the individual self-needs for self-esteem, control, uncertainty reduction, and meaning, (b) the relational self-need for attachment, and (c) the collectiveself-need for social belonging.

Unresolved Issues Surrounding Our Approach

Several conceptual and empirical issues remain unresolved. They all center around the nature of the discussed self-needs. For example, are these needs independent of one another? Concurrently assessing the self-needs in a large sample of devout participants and subjecting the results to factor analyses would begin to address this question. Relatedly, how do the self-needs interact with one another? Here, theoretical development is needed before delving into the empirical arena. For example, it may be that religiosity reduces uncertainty and increases control, a process that elevates a sense of meaning and self-esteem, with an ensuing strengthening of attachment to God and belongingness to a community. Other causal sequences are, of course, plausible. Also, are the self-needs differentially related to psychological health? Moreover, do the needs seem to contribute differently to psychological health and well-being? And what are the pathways through which the intrapsychic needs (self-esteem, control, uncertainty reduction, meaning) impact on belongingness?

Our self-needs perspective capitalizes on the self-regulatory function of religiosity (Fischer, Greitemeyer, Kastenmüller, Jonas, & Frey, 2006). But can religiosity satisfy all self-needs at once? It is possible that religiosity facilitated implicit self-regulation, defined as “a process in which a central executive (i.e., the implicit self) coordinates the person’s functioning by integrating as many subsystems and processes as possible for supporting a chosen course of action” (Koole, McCullough, Kuhl, & Roelofsma, 2010, p. 96). This flexible and efficient, yet unconscious, self-regulatory mode may allow persons to strive living up to their religious standards while sustaining relatively high emotional well-being through the simultaneous satisfaction of the self-needs.

There are other notable ways in which religiosity operates at the psychological level. Religiosity influences family dynamics and childhood experiences (Mahoney, 1995; see also Li & Cohen, Chapter 10, this volume), goals (Emmons, 2005), and values (Roccas, 2005; see also Roccas & Elster, Chapter 9, this volume). Also, personality shapes religiosity (Saroglou, 2010; see also Ashton & Lee, Chapter 2, this volume). Future research would do well to examine the interplay between these factors and the self-needs.

Finally, our account focused mainly on Christianity, reflecting the fact that most research on the topic has used Christian samples. Religions, however, differ in the way they conceptualize deity or the way in which they justify God’s goodness in the face of evil (Donahue, 1989), with accompanying implications for self-needs. For example, Christians usually consider suffering (e.g., disease, sin, death) illusions of a mortal mind and hence not a cause for grief (Allen, 1994), whereas Buddhists typically consider suffering to be caused by craving for wrong things or craving for right things but in the wrong way (Drumont, 1994). Need

satisfaction, then, may take a different route, depending on one's faith. The need for meaning is an example. A Christian may justify suffering in terms of God's will, whereas a Buddhist may justify suffering as grasping for the wrong things. Furthermore, the search and acquisition of meaning (and, probably the satisfaction of other needs) may differ depending on Christian denominations such as Protestant and Catholic (Tix & Frazier, 1998).

Religion and Culture

As we have argued previously (Gebauer et al., 2012; Sedikides & Gebauer, 2010), more general levels of analyses, such as the cultural level, can inform our need-based approach. An additional recent example involves Gallup Polls both in the US (Diener, Tay, & Myers, 2011, Study 1) and in 154 nations (Diener et al., 2011, Study 2). These surveys have shown that religiosity is associated with feeling respected (arguably a proxy of self-esteem), perceiving life as meaningful, and having a sense of social support (a proxy of social belonging). These benefits are in turn linked to increased subjective well-being. However, the relation between religiosity and well-being depends on whether societal circumstances are difficult or easy. Societal circumstances refer to the accommodation of basic needs (i.e., food and shelter), to safety (i.e., feeling safe to walk alone at night), to income, to education, and to life expectancy at birth. Difficult circumstances are defined as having relatively low basic need fulfillment, safety, income, education, and life expectancy. People in US states and nations that encounter difficult circumstances are more likely to be religious, and religiosity is associated with higher self-esteem, meaning, and belongingness. However, people in US states and nations who encounter easy circumstances are less religious, and religiosity does not confer benefits in terms of fulfillment of self-needs (i.e., self-esteem, meaning, belongingness).

Another example of how the cultural level of analysis can inform a needs-based approach is research on the role of religiosity in the relation between income and psychological adjustment. In general, higher income is associated with better psychological adjustment. Gebauer, Nehrlich, Sedikides, and Neberich (in press) proposed that religiosity attenuates this association. They hypothesized that religious teachings convey anti-wealth norms, which decrease the psychological benefits of income. They used survey data from approximately 190,000 individuals originating in 11 religiously diverse European cultures. Consistent with their hypothesis, income and psychological adjustment were virtually unassociated in religious cultures (if not negatively associated), whereas they were positively associated in non-religious cultures. The need for self-esteem, and in particular performance self-esteem, mediated this relation.

The cultural level of analysis is also relevant to control. Sasaki and Kim (2011) were interested in the concept of secondary control, defined as acceptance of, and adjustment to, difficult situations. They tested the role of culture and religion on secondary control. Specifically, they focused on Westerners (i.e., European-Americans), thought to be relatively agentic, and East Asians (i.e., Koreans), thought to be relatively communal. US church websites featured more themes of secondary control in their mission statements than Korean websites, whereas Korean church websites featured more themes of social affiliation than US church websites. Further, experimental priming of religion resulted in acts of secondary control for European-Americans but not for Koreans. Finally, religious coping predicted higher levels of secondary control for European-Americans but not for Koreans, whereas religious coping predicted higher levels of social affiliation for Koreans and European-Americans. In all, the effects of religion were moderated by cultural context.

We have maintained that threat to one's social belonging (e.g., social exclusion or loneliness; Aydin et al., 2010; Epley et al., 2008) heightens one's religiosity. This principle is observed at the cultural level as well. Stress resulting from parasite threat raises ingroup or family ties as well as religiosity. In contrast, low levels of parasite stress lower social ties and religiosity (Fincher & Thornhill, 2012). On the face of it, this would be an alternative explanation for the Diener et al. (2011) findings: cultures characterized by easy circumstances also boast low parasite threat, and hence this effect would account partially for low religiosity in such countries. However, the relation between parasite threat, on the one hand, and social belonging and religiosity, on the other, holds even when controlling for economic development and human freedom (arguably, a proxy of safety).

The relevance of culture for religiosity opens up another issue. Can religiosity be replaced with other worldviews, such as atheism, especially in countries where religiosity has relatively low currency? A preliminary investigation in the non-religious United Kingdom answers this question in the affirmative (Wilkinson & Coleman, 2010). The investigation involved interviewing persons over the age of 60 who were facing stresses and losses associated with aging. Theists and atheists alike reported coping well, suggesting that an atheistic belief system can provide the same psychological benefits to its holders than a theistic belief system can provide to its holders (Dawkins, 2006, p. 347). Similarly, atheism too can satiate attachment and social belongingness needs, for example via connection with likeminded others over the internet (Sproull & Faraj, 1995). Nevertheless, more systematic investigation will need to follow these preliminary findings.

Concluding Notes

Religiosity can be costly. It involves labor in familiarizing oneself with religious doctrines and practices, effort in continuing to display belief in the power of supernatural phenomena that often contradict sensory experiences, extended fasting, missed opportunities to expand one's social circle with persons outside one's religious group, and disadvantages resulting from refusal of modern medical care (Irons 2008; Sosis et al., 2007). How do religious people compensate for these seemingly large costs?

We argued that religiosity entails remarkable compensatory potential. It allows the faithful to fulfill fundamental self-needs: self-esteem, control, uncertainty reduction, and meaning (connected with the individual self), attachment (connected with the collective self), and social belonging (connected with the collective self). Need fulfillment is associated with improved psychological adjustment in cultures that particularly value religion (Diener et al., 2011; Gebauer et al., 2012; Sedikides & Gebauer, 2010).

Our need-based approach, albeit limited, grants the advantage of linking religiosity to broader psychological and social-behavioral phenomena (Baumeister, 2002; Sedikides, 2010b). Our approach also offers an account for the enduring appeal of religiosity. This appeal, culturally circumscribed as it may be, is due, in part, to the concurrent satisfaction of many psychological needs that span the entirety of the self-system. Voltaire (1694–1778) may have had a point when he professed: “If God did not exist, it would be necessary to invent him.”

References

- Abele, A. E., Cuddy, A. J. C., Judd, C. M., & Yzerbyt, V. Y. (2008). Fundamental dimensions of social judgment. *European Journal of Social Psychology*, 38, 1063–1065.
- Allen, J. (1994). The spiritual search. In R. P. Beaver (Ed.), *Gerdman's handbook to the world's religions* (pp. 399–405). Grand Rapids, WY: W. B. Gerdman's Publishing Co.
- Allport, G. W. (1950). *The individual and his religion*. New York: Macmillan.
- Antonovsky, A. (1979). *Health, stress and coping*. San Francisco, CA: Jossey-Bass.
- Argyle, M., & Beit-Hallahmi, B. (1975). *The social psychology of religion*. London: Routledge.
- Armstrong, K. (2009). *The case for God*. New York: Alfred A. Knopf.
- Aydin, N., Fischer, P., & Frey, D. (2010). Turning to God in the face of ostracism: Effects of social exclusion on religiousness. *Personality and Social Psychology Bulletin*, 36, 742–753.
- Bakan, D. (1966). *The duality of human existence: Isolation and communion in Western man*. Boston, MA: Beacon Press.

- Bakunin, M. (1953). A circular letter to my friends in Italy. In G. P. Maximoff (Ed.), *The political philosophy of Bakunin*. London: Free Press. (Original work published 1871)
- Batson, C. D., & Stocks, E. L. (2004). Religion: Its core psychological functions. In T. Pyszczynski, S. L. Koole, & J. Greenberg (Eds.), *Handbook of experimental psychology: An emerging synthesis* (pp. 141–155). New York: Guilford.
- Baumeister, R. F. (1991). *Meanings of life*. New York: Guilford.
- Baumeister, R. F. (2002). Religion and psychology: Introduction to the special issue. *Psychological Inquiry*, 13, 165–167.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117, 497–529.
- Birgegard, A., & Granqvist, A. (2004). The correspondence between attachment to parents and God: Three experiments using subliminal separation cues. *Personality and Social Psychology Bulletin*, 30, 1122–1135.
- Blagg, R. D., & Hogg, M. A. (2012). *Religious leadership and follower uncertainty: Implications for religiousness and identity*. Unpublished manuscript, Claremont Graduate University.
- Bowlby, J. (1982). *Attachment and loss: Vol 1. Attachment* (2nd ed.). New York: Basic Books.
- Brown, S. L., Nesse, R. M., House, J. S., & Utz, R. L. (2004). Religious and emotional compensation: Results from a prospective study of widowhood. *Personality and Social Psychology Bulletin*, 30, 1165–1174.
- Bulbulia, J., & Mahoney, A. (2008). Religious solidarity: The hand grenade experiment. *Journal of Cognition and Culture*, 8, 295–320.
- Bulman, R. J., & Wortman, C. B. (1977). Attributions of blame and coping in the “real world”: Severe accident victims react to their lot. *Journal of Personality and Social Psychology*, 35, 351–363.
- Carter, E. C., McCullough, M. E., & Carver, C. S. (in press). The mediating role of monitoring in the association of religion with self-control. *Social Psychological and Personality Science*.
- Carter, E. C., McCullough, M. E., Kim, J., Corrales, C., & Blake, A. (2012). Religious people discount the future less. *Evolution and Human Behavior*, 33, 224–231.
- Chen, S., Boucher, H. C., Tapias, M. P., Chen, S., Boucher, H. C., & Tapias, M. P. (2006). *The relational self revealed: Integrative conceptualization and implications for interpersonal life*. *Psychological Bulletin*, 132, 151–179.
- Dawkins, R. (2006). *The God delusion*. London: Bantam.
- Dechesne, M., Pyszczynski, T., Arndt, J., Ransom, S., Sheldon, K., van Klippenberg, A. et al. (2003). Literal and symbolic immortality: The effect of evidence of literal immortality on self-esteem striving in response to mortality salience. *Journal of Personality and Social Psychology*, 84, 722–737.
- Demoulin, S., Saroglou, V., & Van Pachterbeke, M. (2008). Infra-humanizing others, supra-humanizing Gods: The emotional hierarchy. *Social Cognition*, 26, 235–247.
- Diener, E., Tay, L., & Myers, D. G. (2011). The religion paradox: If religion makes people happy, why are so many dropping out? *Journal of Personality and Social Psychology*, 101, 1278–1290.

- Donahue, M. J. (1989). Disregarding theology in the psychology of religion: Some examples. *Journal of Psychology and Theology*, *17*, 329–335.
- Drumont, R. (1994). The Buddha's teaching. In R. P. Beaver (Ed.), *Gerdman's handbook to the world's religions* (p. 231). Grand Rapids, WY: W. B. Gerdman's Publishing Co.
- Durkheim, E. (1965). *The elementary forms of religious life* (J. W. Swain, Trans.). New York: Free Press. (Original work published 1915)
- Emmons, R. A. (2005). Striving for the sacred: Personal goals, life meaning, and religion. *Journal of Social Issues*, *61*, 731–746.
- Emmons, R. A., Colby, P. M., & Kaiser, H. A. (1998). When losses lead to gains: Personal goals and the recovery of meaning. In P. T. P. Wong & P. S. Fry (Eds.), *The human quest for meaning* (pp. 163–178). Mahwah, NJ: Erlbaum.
- Epley, N., Akalis, S., Waytz, A., & Cacioppo, J. T. (2008). Creating social connection through inferential reproduction: Loneliness and perceived agency in gadgets, Gods, and greyhounds. *Psychological Science*, *19*, 114–120.
- Exline, J. J., Park, C. L., Smyth, J. M., & Carey, M. P. (2011). Anger toward God: Social-cognitive predictors, prevalence, and links with adjustment to bereavement and cancer. *Journal of Personality and Social Psychology*, *100*, 129–148.
- Fincher, C. L., & Thornhill, R. (2012). Parasite-stress promotes in-group assortative sociality: The cases of strong family ties and heightened religiosity. *Behavioral and Brain Sciences*, *31*, 1–19.
- Fischer, P., Greitemeyer, T., Kastenmüller, A., Jonas, E., & Frey, D. (2006). Coping with terrorism: The impact of increased salience of terrorism on mood and self-efficacy of intrinsically religious and nonreligious people. *Personality and Social Psychology Bulletin*, *32*, 365–377.
- Freud, S. (1961). *The future of an illusion* (J. Strachey, Trans.). New York: Norton. (Original work published 1927)
- Friedman, M., & Rholes, W. S. (2007). Successfully challenging fundamentalists' beliefs results in increased death awareness. *Journal of Experimental Social Psychology*, *43*, 794–801.
- Gaertner, L., Sedikides, C., Luke, M. A., & Iuzzini, J. (2008). Hierarchy among selves: An implication for relations with persons versus groups. In H. A. Wayment & J. J. Bauer (Eds.), *Transcending self-interest: Psychological explorations of the quiet ego* (pp. 127–135). Washington, DC: American Psychological Association.
- Gaertner, G., Sedikides, C., Luke, M., O'Mara, E. M., Iuzzini, J., Jackson, L. E et al. (2012). A motivational hierarchy within: Primacy of the individual self, relational self, or collective self? *Journal of Experimental Social Psychology*, *48*, 997–1013.
- Gaertner, L., Sedikides, C., & O'Mara, E. (2008). On the motivational primacy of the individual self: "I" is stronger than "We." *Social and Personality Psychology Compass*, *2*, 1913–1929.
- Gallup, G., Jr., & Jones, S. (1989). *One hundred questions and answers: Religion in America*. Princeton, NJ: Princeton Religious Research Center.
- Gebauer, J. E., & Maio, G. R. (2012). The need to belong can motivate belief in God. *Journal of Personality*, *80*, 465–501.

- Gebauer, J. E., Nehrlich, A. D., Sedikides, C., & Neberich, W. (in press). The psychological benefits of income are contingent on individual-level and culture-level religiosity. *Social Psychological and Personality Science*.
- Gebauer, J. E., Paulhus, D. L., & Neberich, W. (in press). Big Two personality and religiosity across cultures: Communals as religious conformists and agentic as religious contrarians. *Social Psychological and Personality Science*.
- Gebauer, J. E., Sedikides, C., & Neberich, W. (2012). Religiosity, self-esteem, and psychological health: On the cross-cultural specificity of the benefits of religiosity. *Psychological Science*, *23*, 158–160.
- Geertz, C. (1966). Religion as a cultural system. In M. Banton (Ed.), *Anthropological approaches to the study of religion* (pp. 1–46). London: Tavistock.
- Gervais, W. M., Shariff, A. F., & Norenzayan, A. (2011). Do you believe in atheists? Distrust is central to anti-atheist prejudice. *Journal of Personality and Social Psychology*, *101*, 1189–1206.
- Gorsuch, R. L. (1986). The conceptualization of God as seen in adjective ratings. *Journal for the Scientific Study of Religion*, *7*, 56–64.
- Graham, J., & Haidt, J. (2010). Beyond beliefs: Religions bind individuals into moral communities. *Personality and Social Psychology Review*, *14*, 140–150.
- Granqvist, P., & Kirkpatrick, L. A. (2008). Attachment and religious representations and behavior. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (2nd ed., pp. 906–933). New York: Guilford.
- Granqvist, P., Mikulincer, M., Gewirtz, V., & Shaver, P. R. (2012). Experimental findings on God as an attachment figure: Normative processes and moderating effects of internal working models. *Journal of Personality and Social Psychology*, *103*, 804–818.
- Greenberg, J., Pyszczynski, T., & Solomon, S. (1986). The causes and consequences of a need for self-esteem: A terror management theory. In R. F. Baumeister (Ed.), *Public self and private self* (pp. 189–212). New York: Springer.
- Greenberg, J., Simon, L., Porteus, J., Pyszczynski, T., & Solomon, S. (1995). Evidence of a terror management function of cultural icons: The effects of mortality salience on the inappropriate use of cherished cultural symbols. *Personality and Social Psychology Bulletin*, *21*, 1221–1228.
- Hall, D. L., Matz, D. C., & Wood, W. (2010). Why don't we practice what we preach? A meta-analytic review of religious racism. *Personality and Social Psychology Review*, *14*, 126–139.
- Harper, M. (2007). The stereotyping of nonreligious people by religious students: Contents and subtypes. *Journal for the Scientific Study of Religion*, *46*, 539–552.
- Haslam, S. A., Jetten, J., Postmes, T., & Haslam, C. (2009). Social identity, health and well-being: An emerging agenda for applied psychology. *Applied Psychology*, *58*, 1–23.
- Hawley, L. C., Browne, M. W., & Cacioppo, J. T. (2005). How can I connect with thee? Let me count the ways. *Psychological Science*, *16*, 798–804.
- Hepper, E. G., Gramzow, R. H., & Sedikides, C. (2010). Individual differences in self-enhancement and self-protection strategies: An integrative analysis. *Journal of Personality*, *78*, 781–814.

- Hepper, E. G., Sedikides, C., & Cai, H. (in press). Self-enhancement and self-protection strategies in China: Cultural expressions of a fundamental human motive. *Journal of Cross-Cultural Psychology*.
- Hogg, M. A., & Adelman, J. (in press). Self-uncertainty, social identity and support for political and religious violence. *Journal of Social Issues*.
- Inzlicht, M., McGregor, I., Hirsh, J. B., & Nash, K. (2009). Neural markers of religious conviction. *Psychological Science*, *20*, 385–392.
- Irons, W. (2008). Why people believe (what other people see as) crazy ideas. In J. Bulbulia, R. Sosis, C. Genet, R. Genet, & K. Wyman (Eds.), *The evolution of religion: Studies, theories, and critiques* (pp. 51–57). Santa Margarita, CA: Collins Foundation Press.
- Jackson, L. M., & Hunsberger, B. (1999). An intergroup perspective on religion and prejudice. *Journal for the Scientific Study of Religion*, *38*, 509–523.
- James, W. (1902). *The varieties of religious experience: A study in human nature*. New York: Random House.
- Johnson, M. K., Rowatt, W. C., & LaBouff, J. P. (in press). Religiosity and prejudice revisited: Ingroup favoritism, outgroup derogation, or both? *Psychology of Religion and Spirituality*.
- Jonas, E., & Fischer, P. (2006). Terror management and religion: Evidence that intrinsic religiousness mitigates worldview defense following mortality salience. *Journal of Personality and Social Psychology*, *91*, 553–567.
- Kay, A. C., Gaucher, D., Napier, J. L., Callan, M. J., & Laurin, K. (2008). God and the government: Testing a compensatory control mechanism for the support of external systems. *Journal of Personality and Social Psychology*, *95*, 18–35.
- Kay, A. C., Moscovitch, D. M., & Laurin, K. (2010). Randomness, attributions of arousal, and belief in God. *Psychological Science*, *21*, 216–218.
- Kay, A. C., Shepherd, S., Blatz, C. W., Chua, S. N., & Galinsky, A. D. (2010). For God (or) country: The hydraulic relation between government instability and belief in religious sources of control. *Journal of Personality and Social Psychology*, *5*, 725–739.
- Kelley, H. H. (1971). *Attributions in social interaction*. Morristown, NJ: General Learning Press.
- Kirkpatrick, L. A. (2005). *Attachment, evolution, and the psychology of religion*. New York: Guilford.
- Kirkpatrick, L. A., Shillito, D. J., & Kellas, S. L. (1999). Loneliness, social support, and perceived relationships with God. *Journal of Social and Personal Relationships*, *16*, 13–22.
- Koole, S. L., McCullough, M. E., Kuhl, J., & Roelofsma, P. H. M. P. (2010). Why religion's burdens are light: From religiosity to implicit self-regulation. *Personality and Social Psychology Review*, *14*, 95–107.
- Kotarba, J. A. (1983). Perceptions of death, belief systems and the process of coping with chronic pain. *Social Science and Medicine*, *17*, 681–689.
- Laurin, K., Kay, A. C., & Moscovitch, D. M. (2008). On the belief in God: Towards an understanding of the emotional substrates of compensatory control. *Journal of Experimental Social Psychology*, *44*, 1559–1562.
- Mahoney, A. (2005). Religion and conflict in marital and parent–child relationships. *Journal of Social Issues*, *61*, 689–706.

- McCullough, M. E., Carter, E. C., & DeWall, C. N., & Corrales, C. M. (2012). Religious cognition down-regulates sexually selected, characteristically male behaviors in men, but not in women. *Evolution and Human Behavior*, *33*, 562–568.
- McCullough, M. E., & Willoughby, B. L. B. (2009). Religion, self-control, and self-regulation: Associations, explanations, and implications. *Psychological Bulletin*, *135*, 69–93.
- McGregor, I. (2006). Zeal appeal: The allure of moral extremes. *Basic and Applied Social Psychology*, *28*, 343–348.
- McGregor, I., Haji, R., Nash, K. A., & Teper, R. (2008). Religious zeal and the uncertain self. *Basic and Applied Social Psychology*, *30*, 183–188.
- McGregor, I., Nash, K., Mann, N., & Phills, C. E. (2010). Anxious uncertainty and reactive approach motivation (RAM). *Journal of Personality and Social Psychology*, *99*, 133–147.
- McIntosh, D. N. (1995). Religion as schema, with implications for the relation between religion and coping. *International Journal for the Psychology of Religion*, *5*, 1–16.
- Norenzayan, A., & Hansen, I. G. (2006). Belief in supernatural agents in the face of death. *Personality and Social Psychology Bulletin*, *32*, 174–187.
- Osarchuk, M., & Tatz, S. J. (1973). Effect of induced fear of death on belief in afterlife. *Journal of Personality and Social Psychology*, *27*, 256–260.
- Paloutzian, R. F., Richardson, J. T., & Rambo, L. R. (1999). Religious conversion and personality change. *Journal of Personality*, *67*, 1047–1079.
- Pargament, K. I. (1997). *The psychology of religion and coping*. New York: Guilford.
- Pargament, K. I., Koenig, H. G., & Perez, L. M. (2000). The many methods of religious coping: Development and initial validation of the RCOPE. *Journal of Clinical Psychology*, *56*, 519–543.
- Park, C. L. (2005). Religion as a meaning-making framework in coping with life stress. *Journal of Social Issues*, *61*, 707–729.
- Park, C. L. (2010). Making sense of the meaning literature: An integrative review of meaning making and its effects on adjustment to stressful life events. *Psychological Bulletin*, *136*, 257–301.
- Park, C. L., & Cohen, L. H. (1993). Religious and nonreligious coping with the death of a friend. *Cognitive Therapy and Research*, *6*, 561–577.
- Park, C. L., Edmondson, D., & Blank, T. O. (2009). Religious and non-religious pathways to stress-related growth in cancer survivors. *Applied Psychology: Health and Well-Being*, *1*, 321–335.
- Paulhus, D. L., & Holden, R. R. (2010). Measuring self-enhancement: From self-report to concrete behavior. In C. R. Agnew, D. E. Carlston, W. G. Graziano, & J. R. Kelly (Eds.), *Then a miracle occurs: Focusing on behavior in social psychological theory and research* (pp. 227–246). New York: Oxford University Press.
- Pew Research Group. (2011). *Faith in flux: Changes in religious affiliation in the U.S. The Pew Forum on Religion and Public Life*. Retrieved February 7, 2012, from <http://pewforum.org/docs/?DocID=409>.
- Puffer, K., Pence, K., Graverson, T. Pate, E., Clegg, S., & Wolfe, M. (2008). Religious doubt and identity formation: Salient predictors of adolescent religious doubt. *Journal of Psychology and Theology*, *36*, 270–284.

- Ritchie, T. D., Sedikides, C., Wildschut, T., Arndt, J., & Gidron, Y. (2011). Self-concept clarity mediates the relation between stress and subjective well-being. *Self and Identity*, *10*, 493–508.
- Roccas, S. (2005). Religion and value systems. *Journal of Social Issues*, *61*, 747–759.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Rothbaum, F., Weisz, J. R., & Snyder, S. S. (1982). Changing the world and changing the self: A two-process model of perceived control. *Journal of Personality and Social Psychology*, *42*, 5–37.
- Rothschild, Z., Abdollahi, A., & Pyszczynski, T. (2009). Does peace have a prayer? The effect of mortality salience, compassionate values, and religious fundamentalism on hostility toward out-groups. *Journal of Experimental Social Psychology*, *45*, 816–827.
- Rowatt, W. C., & Kirkpatrick, L. A. (2002). Two dimensions of attachment to God and their relation to affect, personality, and religiosity constructs. *Journal for the Scientific Study of Religion*, *41*, 637–651.
- Saroglou, V. (2010). Religiosity as a cultural adaptation of basic traits: A five-factor model perspective. *Personality and Social Psychology Review*, *14*, 108–125.
- Sasaki, J. Y., & Kim, H. S. (2011). At the intersection of culture and religion: A cultural analysis of religion's implications for secondary control and social affiliation. *Journal of Personality and Social Psychology*, *101*, 401–414.
- Sedikides, C. (Ed.). (2010a). Religiosity: Perspectives from social and personality psychology [Special issue]. *Personality and Social Psychology Review*, *14*(1).
- Sedikides, C. (2010b). Why does religiosity persist? *Personality and Social Psychology Review*, *14*, 3–6.
- Sedikides, C., & Brewer, M. B. (2001a). *Individual self, relational self, collective self*. Philadelphia, PA: Psychology Press.
- Sedikides, C., & Brewer, M. B. (2001b). Individual, relational, and collective self: Partners, opponents, or strangers? In C. Sedikides & M. B. Brewer (Eds.), *Individual self, relational self, collective self* (pp. 1–4). Philadelphia, PA: Psychology Press.
- Sedikides, C., Gaertner, G., & O'Mara, E. M. (2011). Individual self, relational self, collective self: Hierarchical ordering of the tripartite self. *Psychological Studies*, *56*, 98–107.
- Sedikides, C., & Gebauer, J. E. (2010). Religiosity as self-enhancement: A meta-analysis of the relation between socially desirable responding and religiosity. *Personality and Social Psychology Review*, *14*, 17–36.
- Sedikides, C., & Gregg, A. P. (2008). Self-enhancement: Food for thought. *Perspectives on Psychological Science*, *3*, 102–116.
- Shaver, P. R., & Fraley, R. C. (2008). Attachment, loss, and grief: Bowlby's views and current controversies. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (2nd ed., pp. 48–77). New York: Guilford.
- Shepherd, S., Kay, A. C., Landau, M. J., & Keefer, L. A. (2012). Evidence for the specificity of control motivations in worldview defense: Distinguishing

- compensatory control from uncertainty management and terror management processes. *Journal of Experimental Social Psychology*, 47, 949–958.
- Sosis, R., Kress, H. C., & Boster, J. S. (2007). Scars for war: Evaluating alternative signaling explanations for cross-cultural variance in ritual costs. *Evolution and Human Behavior*, 28, 234–247.
- Spilka, B., Hood, R. W., Jr., Hunsberger, B., & Gorsuch, R. (2003). *The psychology of religion: An empirical approach* (3rd ed.). New York: Guilford.
- St. John of the Cross. (1990). *Dark night of the soul*. New York: Doubleday.
- Sproull, L. S., & Faraj, S. (1995). Atheism, sex and databases. In B. Kahin & J. Keller (Eds.), *Public access to the internet* (pp. 62–81). Cambridge, MA: MIT Press.
- Stern, J. (2003). *Terror in the name of God: Why religious militants kill*. New York: HarperCollins.
- Tamayo, A., & Desjardins, L. (1976). Belief systems and conceptual images of parents and God. *Journal of Psychology*, 92, 131–140.
- Taylor, S. E., Lerner, J. S., Sherman, D. K., Sage, R. M., & McDowell, N. K. (2003a). Portrait of the self-enhancer: Well adjusted and well liked or maladjusted and friendless? *Journal of Personality and Social Psychology*, 84, 165–176.
- Taylor, S. E., Lerner, J. S., Sherman, D. K., Sage, R. M., McDowell, N. K. (2003b). Are self-enhancing cognitions associated with healthy or unhealthy biological profiles? *Journal of Personality and Social Psychology*, 85, 605–615.
- Tix, A. P., & Frazier, P. A. (1998). The use of religious coping during stressful life events: Main effects, moderation, and mediation. *Journal of Consulting and Clinical Psychology*, 66, 411–422.
- Trimble, D. E. (1997). The religious orientation scale: Review and meta-analysis of social desirability effects. *Educational and Psychological Measurement*, 57, 970–986.
- Widman, D. R., Corcoran, K. E. & Nagy, R. E. (2009). Belonging to the same religion enhances the opinion of others' kindness and morality. *Journal of Social, Evolutionary, and Cultural Psychology*, 3, 281–289.
- Wilkinson, P. J., & Coleman, P. G. (2010). Strong beliefs and coping in old age: A case-based comparison of atheism and religious faith. *Aging and Society*, 30, 337–361.
- Wiltermuth, S. S., & Heath, C. (2009). Synchrony and cooperation. *Psychological Science*, 20, 1–5.
- Wortmann, J. H., & Park, C. L. (2011). Religion/spirituality and change in meaning after bereavement: Qualitative evidence for the meaning making model. *Journal of Loss and Trauma*, 14, 17–34.
- Vail, K. E., III, Juhl, J., Arndt, J., Vess, M., Routledge, C., & Rutjens, B. T. (2012). When death is good for life: Considering the positive trajectories of terror management. *Personality and Social Psychology Review*, 16, 303–329.
- Vail, K. E., III, Rothschild, Z. K., Weise, D. R., Solomon, S., Pyszczynski, T., & Greenberg, J. (2010). A terror management analysis of the psychological functions of religion. *Personality and Social Psychology Review*, 14, 84–94.
- Van den Bos, K. (2001). Uncertainty management: The influence of uncertainty salience on reactions to perceived procedural fairness. *Journal of Personality and Social Psychology*, 80, 931–941.

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Van den Bos, K., Van Ameijde, J., & Van Gorp, H. (2006). On the psychology of religion: The role of personal uncertainty in religious worldview defense. *Basic and Applied Social Psychology, 28*, 333–341.

Ysseldyk, R., Matheson, K., & Anisman, H. (2010). Religiosity as identity: Toward an understanding of religion from a social identity perspective. *Personality and Social Psychology Review, 14*, 60–71.

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