

INFRA-HUMANIZING OTHERS, SUPRA-HUMANIZING GODS: THE EMOTIONAL HIERARCHY

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Previous research has shown that people tend to infra-humanize outgroup members by being reluctant to attribute them secondary, uniquely human, emotions (Demoulin et al., 2004; Leyens et al., 2000). In the present paper, we extend the infra-humanization theory by arguing that people, going to the opposite pole of the humanness continuum, have also the tendency to supra-humanize some supernatural entities. Two exploratory studies focusing at the explicit perceptions of God and the self give support to these assumptions. The several consequences of gods' supra-humanization for social cognition are discussed.

The humanness dimension has received increased attention in the last decade. Most scholars, in this domain, have concentrated their efforts on the attribution and/or association of humanness to members of social groups (Leyens et al., 2000; see also Boccatto, Capozza, Falvo, & Durante, 2008, this issue; Harris & Fiske, 2006; Haslam, 2006) and to the self (Cortes, Demoulin, Rodriguez, Rodriguez, & Leyens, 2005; Haslam & Bain, 2007). It is proposed that people usually tend to reserve humanness for themselves and for members of their ingroup. Doing so, they derogate outgroups making them appear less or not at all human. The attribution of a lesser humanness to outgroups is often called infra-humanization and it is distinguished from harsher forms of derogations, namely, dehumanization, the complete denegation of humanness to others. The goal of the present article is two-fold. First, we explore the other side of the humanness continuum and look at supra-humans instead of infra-humans. Second, we focus our attention on a different type of social target. Specifically, we investigate the potential supra-human nature of gods, or supernatural beings in general.

We begin this paper by introducing dehumanization and infra-humanization theories. We then present a brief review of the literature addressing the social perception of gods and supernatural beings. Building on these two accounts simultaneously, we investigate supra-human perceptions of gods. We propose that

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representations of gods are at the same time similar and different from representation of human beings in that the former are perceived to be superior to the latter. In other words, divinities and gods are conceived by lay perceivers as *supra*-humans; *human* because they are very similar to human beings and *supra* because they are also superior to human beings. In doing so, we focus on what is at the heart of the *infra*-humanization research, that is, the distinction between primary and secondary emotions. Finally, we will present two exploratory studies that aimed to test our assumptions.

INTRODUCTION: INFRA-HUMANIZATION THEORY

Unlike other authors who have studied the dehumanization of outgroups as an antecedent of aggression and other extreme forms of prejudice (Opatow, 1990; Struch & Schwartz, 1989), Leyens and colleagues recently suggested investigating a milder form of dehumanization that occurs on a day-to-day basis between social groups (Leyens et al., 2000). This milder form of dehumanization is called “*infra*-humanization” and it refers to the extent to which people reserve uniquely human characteristics for themselves and their ingroup and attribute those uniquely human characteristics to a *lesser* extent to outgroups. In contrast, nonuniquely human characteristics, that are believed to be shared across animal species, are attributed equally to both types of social groups.

Infra-humanization theorists have classically concentrated their empirical efforts on secondary emotions. Research has shown that lay people typically differentiate secondary emotions (e.g., guilt, shame, pride) from primary emotions (e.g., anger, surprise, happiness) on a series of dimensions one of which being unique humanness, that is, lay people believe that primary emotions can be experienced by both human beings and animals, whereas secondary emotions are reserved to the human experience (Demoulin et al., 2004). *Infra*-humanization research consistently demonstrates that people reserve secondary emotions to their fellow ingroup members (Leyens et al., 2003) and even deny secondary emotions to outgroup members (Demoulin et al., 2005). In contrast, attributions of primary emotions are equivalent for all social groups.

In a related series of research, Haslam (2006; see also Haslam, Kashima, Loughnan, Shi, & Suitner, 2008, this issue) proposed to distinguish between two senses of humanness, unique humanness and human nature. These two senses of humanness translate into two distinct forms of dehumanization: animalistic and mechanistic dehumanization, respectively. In this typology of dehumanization, *infra*-humanization best exemplifies an animalistic form of dehumanization. Indeed, as Haslam points out, secondary emotions are conceptualized as uniquely human attributes; that is, attributes that differentiate human beings from other animal species.

THE OTHER POLE OF THE HUMANNESS CONTINUUM: GODS AND SUPERNATURAL BEINGS

Infra-humanization studies as well as research on the lay perceptions of emotions (Demoulin, et al., 2004) converge in favor of a representation of humanness along a continuum rather than as an exclusive category. The history of mentalities points to the need to examine the opposite to *infra*-humans pole of the humanness contin-

uum. Constant evidence across cultures and historical periods testifies that people have the tendency not only to derogate, discriminate or dehumanize others but also to postulate the existence of some supernatural entities, such as gods, that are believed to be superior to human beings.

A review of the empirical studies of the last 20 years on God¹ representations (Saroglou, 2006) leads to two main conclusions. First, people tend to “create” gods on their image, that is, they perceive gods in a very similar way—they perceive themselves. Second, people also “create” gods as being better and higher than themselves; that is, they perceive gods as hierarchically superior to themselves. Here after, we detail these two considerations.

First, variation in God representations is a function of self-concept, parents’ actual or ideal representations, quality of attachment relationships, personality (five factor model), gender, age, and culture (see Saroglou, 2006, for a review). Moreover, theorists and scholars from cognitive sciences and anthropology have pointed out that gods are perceived by humans as being very similar to themselves and that the evolutionary advantage of gods over other supernatural entities is that they are much more similar to humans than other supernatural agents (e.g., Atran & Norenzayan, 2004; Boyer, 2001; Guthrie, 1993). Most of the properties that lay people tend to apply to human beings are also perceived to apply to gods. Knowledge, information processing, memory, emotions, desires, motivations, behaviors, mobility in space and time, are all instances of human attributes that are believed to be shared by gods. Importantly, even adults who endorse the “theologically correct” idea of an omni-present God treat God in a so-called anthropomorphic way as being imprisoned by the same laws applying to humans beings. For instance, gods cannot be at the same time in two different places, and they cannot listen at the same time to prayers of different people (Barrett, 2001).

Second, in addition to being similar to humans, gods also differ from humans in a number of ways. Theorists and researchers mention the existence of several counter-intuitive elements that are applied to supernatural entities in people’s lay representations (Atran & Norenzayan, 2004; Boyer, 2001). These elements violate naïve physics, naïve biology, and naïve psychology (e.g., going through walls, body transformation, omni-science, etc.). Among a large variety of possible counter-intuitive elements, only a few apply to the very specific supernatural entities that are gods. As Boyer (2001) pointed out, unusual proprieties that are important for people’s lives (e.g., gods’ knowledge of people’s destiny) have a better chance to interest people than unusual and unimportant elements (e.g., zombies’ and extra-terresters’ skills).

Besides those unusual but important counter-intuitive elements, gods also differ from human beings on human attributes. Specifically, people believe that what differentiates gods from themselves is that gods are generally superior to human beings and superior to themselves. This superiority concerns cognitive and perceptual capacities (e.g., Haslam et al., 2008, this issue), but not only. For instance, studies from a big five personality model perspective emphasize that gods receive higher scores than the self on many personality traits, especially agreeableness and

1. All major religions designate God as a male. We will then refer to God as a “He.” The same comment also applies to another entity used in our studies, namely, Satan.

conscientiousness (Basset & Williams, 2003; Ciarrocchi, Piedmont, & Williams, 2002; Leach, Piedmont, & Monteiro, 2001).

INFRA-HUMANISATION THEORY AND SUPRA-HUMANIZATION OF GODS

Gods are thus perceived as both human-like and superior to humans. However, most previous research revised above focused on the intellectual superiority of gods over human beings. We propose to focus on the emotional dimension of humanness. We argue that people not only infra-humanize others (outgroups), but also supra-humanize some other nonhuman beings such as gods. Because gods are seen as similar to human beings, traits people consider as *uniquely* human (i.e., less attributable to animals or outgroups), such as uniquely human emotions, may also be attributed to supra-humans. Even more, because gods are also perceived as superior to human beings, they could be seen as possessing these uniquely human attributes to a higher extent. Because secondary emotions are considered by people as features distinguishing them from the inferior others, gods may be perceived as possessing secondary emotions even more than human beings (Hypothesis 1). Alternatively, one could postulate that gods may be perceived as so distinct from animals or higher than humans that they do not even possess what humans think they share with subhuman animal species, i.e., primary emotions (Hypothesis 2).

Our expectation that people have the tendency to supra-humanize gods on the emotional continuum by accentuating the difference between gods and animals or by attributing to gods uniquely human characteristics to a high degree is also based on the very nature of primary and secondary emotions. If primary emotions are, compared to secondary emotions, more intense, visible, externally caused, less related to cognition and morality, and more “primitive” in terms of individual development (Demoulin et al., 2004), gods should be exempt from such characteristics. On the contrary, they should be perceived as having, possibly to a higher degree than humans, secondary emotions that are more mature, more related to cognition and morality, less intense and visible, and more depending on self-control. Primary emotions are more related in fact to the bodily experience of humans that make them feel close to animals, whereas in the three monotheistic religions God is perceived as being unembodied. In some religious traditions (e.g., Judaism, Islam, Protestantism), God’s image is even prohibited, which prevents him, we can speculate, from presenting facial expressions of emotions.

Importantly, our hypotheses that humans attribute to God fewer primary emotions and more secondary emotions than to themselves are independent from the question whether these emotions are positive or negative. Indeed, studies in the framework of the infra-humanization theory postulate that it is the distinction between primary and secondary emotions and not the positive versus negative character of the former and the latter that allows for establishing a social hierarchy (Leyens et al., 2003).

INDIVIDUAL RELIGIOUSNESS AS MODERATOR

Previous research does not provide systematic and conclusive evidence on whether the psychological consequences of religious cognitions apply to people in general or only (or more importantly) to religious people in particular. Some studies show that

religious priming may activate or lead to prosociality among people independently of their personal religiousness (Pichon, Boccato, & Saroglou, 2007; Shariff & Norenzayan, 2007), whereas, in other studies, the effects of religious priming are limited to, or are stronger among, religious participants (e.g., Weisbuch-Remington, Mendes, Seery, & Blascovitch, 2005; Wenger, 2004). We expect our hypotheses to apply to both religious and nonreligious people since God's representation as superior to humans is universal across cultures and societies. However, we also explore whether individual religiousness is a moderator of the hypothesized effects. Indeed, one could argue that the more people are religious the more they should supra-humanize gods.

OVERVIEW OF THE STUDIES

Two studies aimed at finding associations between God and primary and secondary emotions. In the first study, associations between "God" and emotions were compared to associations between "the self" and emotions in a between-participants design. We selected the self as a target for comparison with God for the following reasons. First, previous research has shown that the self is equivalent to the ingroup in terms of the infra-humanization process (Cortes et al., 2005). Second, it is more meaningful to make comparisons between two individual beings (God and self) rather than between a group (e.g., humans) and God. Finally, selecting an unspecified human target (e.g., Oliver) rather than the self would introduce confusion about the out- or in-group status of the target. The second study aimed to (a) replicate the first one with a partially different set of primary and secondary emotions and to (b) extend the first one by adding a third condition with a different supernatural being than God, i.e., Satan.

STUDY 1

METHOD

Participants and Design

Sixty two undergraduates of the Catholic University of Louvain participated in the experiment in exchange for course credit. They were randomly assigned to one out of two conditions: "God" or "the self."

Procedure and Material

Participants were placed individually in front of a computer. They first completed a lexical decision task. Analyses of the responses to the lexical decision task giving no significant results in any of the two studies, procedure and results for this task will not be alluded further on. After this task, participants completed a questionnaire indicating the degree to which a series of emotions could be attributed to God or themselves. Participants then filled out the religiousness measure. They were finally thanked and debriefed.

Emotional words. A list of 40 emotions were randomly sampled out of the list of Demoulin et al. (2004). We had equal numbers of primary and secondary emotions.

More negative emotions were used than positive ones as a higher number of negative as compared to positive emotions are used in the French language. Among the selected emotions, primary ones were less human ($M = 2.07$, $SD = 0.52$) than secondary ones ($M = 5.50$, $SD = 0.26$), $t(38) = -26.26$, $p < .001$). Mean valence did not differ between primary emotions ($M = 3.08$, $SD = 1.57$) and secondary emotions samples ($M = 3.47$, $SD = 1.41$), $t(38) = -0.82$, ns (Demoulin et al., 2004). Participants were asked to rate the extent to which each of these emotions could be attributed to the target (God vs. Self) on a 7-point scale (1: *not at all*; 7: *very much*).

Religiousness. Participants scored on a 7-point Likert scale the importance of God in their personal life (1: *not at all important*; 7: *very important*). Following their answers, we classified participants who scored from 1 to 3 as nonreligious/nonbelievers (73%), whereas those who scored from 4 to 7 were classified as religious/believers (27%).

RESULTS AND DISCUSSION

A 2 (Condition: God vs. Self) \times 2 (Religiousness: Low vs. High) \times 2 (Emotions: Primary vs. Secondary) \times 2 (Valence: Positive vs. Negative) mixed ANOVA was computed on the mean scores of emotion attributions with the two first variables as between-participant factors and the last two as within-participant ones. Results showed a series of main effects, 2-way and 3-way interactions.

There was a main effect of Emotions, $F(1, 58) = 6.79$, $p < .02$, with more primary emotions ($M = 2.91$, $SD = 0.14$) being attributed than secondary emotions ($M = 2.67$, $SD = 0.14$). There was also a main effect of Valence, $F(1, 58) = 38.88$, $p < .001$, with more positive emotions ($M = 3.24$, $SD = 0.18$) being attributed than negative ones ($M = 2.33$, $SD = 0.12$). There was a 2-way interaction between Religiousness and Condition, $F(1, 58) = 5.12$, $p < .03$, with highly religious people attributing more emotions in general to God ($M = 3.09$, $SD = 0.39$) than to the self ($M = 2.72$, $SD = 0.25$) and low religious people making the reverse attributions ($M_s = 2.24$ & 3.10 , $SD_s = 0.17$ & 0.21 , for God and the self, respectively). We also obtained a 2-way interaction between Emotions and Valence, $F(1, 58) = 12.81$, $p < .002$ and another 2-way interaction between Religiousness and Emotions, $F(1, 58) = 6.39$, $p < .02$. These latter two interactions were of no theoretical interest for the present study. Most importantly, and as predicted, Condition interacted with Emotions, $F(1, 58) = 23.34$, $p < .001$. Analyses of simple effects revealed that whereas secondary emotions were attributed to the same extent to God ($M = 2.76$, $SD = 0.85$) and the self ($M = 2.57$, $SD = 0.96$), the attribution of primary emotions diverged between these two conditions, $t(60) = 3.41$, $p < .002$, with fewer primary emotions being attributed to God ($M = 2.56$, $SD = 0.66$) than to the self ($M = 3.25$, $SD = 1.00$) (see also Figure 1A). Finally, there was a 3-way interaction involving Condition, Valence, and Religiousness, $F(1, 58) = 9.01$, $p < .005$. Analyses of simple effects revealed that attribution of positive and negative emotions to the self were equivalent for religious and nonreligious people, $F < 1$. Interestingly, attributions of positive and negative emotions to God varied as a function of participants' religiousness, $F(1, 30) = 8.65$, $p < .007$. Specifically, religious people ($M = 4.00$, $SD = 0.80$) tended to attribute more positive emotions to God than did nonreligious people ($M = 2.34$, $SD = 1.10$), $F(1, 30) = 10.18$, $p < .004$. Differences in attributions of negative emotions to God were not significant, $F < 1$.

Results of Study 1 support the idea of a perceived supra-humanization of God. Participants tend to attribute fewer primary emotions to God than to the self. Doing

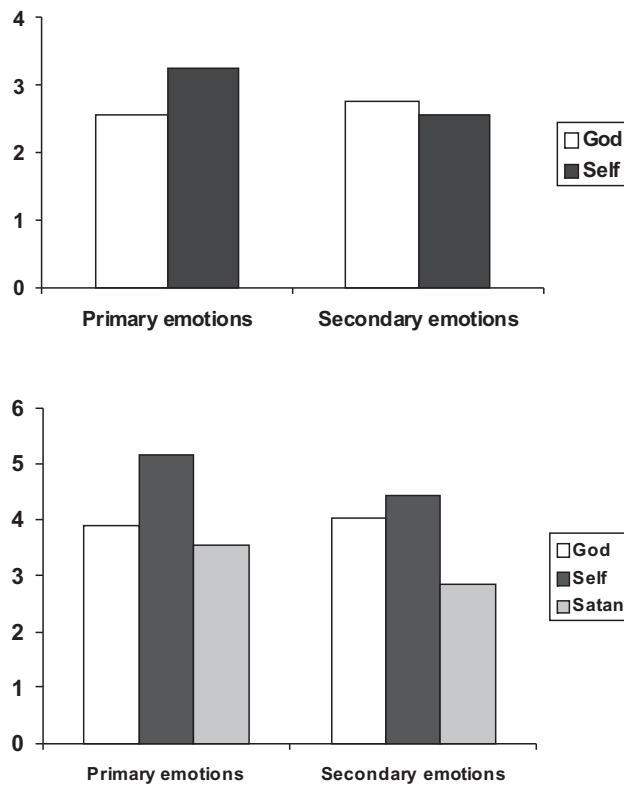


FIGURE 1: Attributions of primary and secondary emotions to God and the self (Study 1: A), and Satan (Study 2: B).

so, they differentiate gods from human beings by not attributing to gods characteristics that humans share with subhuman species. However, the present results do not support the first hypothesis, in that secondary emotions do not seem to be more linked to God than to the self.

The hypothesized effect of God being less involved with primary emotions was not moderated by religiousness. Although religious people compared to nonreligious ones tended to perceive God in more positive terms (in line with previous literature: see Saroglou, 2006, for a review), this effect did not depend on whether the emotions were primary or secondary. Apparently, the “ontological” distinction between different species on the humanness continuum seems to be a general feature of social cognition.

STUDY 2

Study 2 replicates and extends Study 1. First, the list of emotions used in Study 1 was modified in order to ensure generalizability of the results and to account for the imbalance between the number of positive and negative emotions. Second, instructions for the completion of the explicit questionnaire were modified. This modification was introduced to avoid participants reporting the emotions they feel when thinking about the target and to ensure that the emotion was imagined to be felt by

the target himself. Third, we aimed at exploring whether the obtained effects in Study 1 applied specifically to gods, or whether any kind of supernatural entity could produce the same results. To test this, we introduced a third condition in which attributions of emotions were to be made for Satan. We hypothesized that only attribution of emotions to God, and not Satan, would produce the expected effects on primary and secondary emotions. Indeed, perception of supra-humanity should be reserved to supernatural agents that are believed to be both similar *and* superior to human beings.

METHOD

Participants and Design

Ninety one undergraduates of the Catholic University of Louvain participated in the experiment in exchange for course credit. They were randomly assigned to one out of three conditions: God, the self, and Satan.

Procedure and Material

The procedure for Study 2 was identical to the one used in Study 1 except for the following point. When completing the questionnaire participants were asked to rate to which extent they could imagine God, Satan, or themselves *feeling* each the emotions.

Emotional words. Forty words were randomly sampled out of the list of Demoulin et al. (2004). We had equal numbers of primary and secondary emotions. In addition, within each emotional type, half were positive and half negative. Primary emotions were perceived less human ($M = 2.12$, $SD = 0.54$) than secondary ones ($M = 5.30$, $SD = 0.53$), $t(38) = -18.63$, $p < .001$. Mean valence did not differ between primary ($M = 4.15$, $SD = 2.03$) and secondary emotion ($M = 4.02$, $SD = 1.57$), $t(38) = 0.21$, ns. Participants were asked to rate the extent to which they could imagine that the target (God vs. Self) would feel each of these emotions on a 7-point scale (1: *not at all*; 7: *very much*).

Religiousness. As in Study 1, religiousness was assessed by an item asking the importance of God in the participant's personal life. Again, participants were categorized into nonbelievers/nonreligious (66%) and religious/believers (33%).

RESULTS AND DISCUSSION

A 3 (Condition: God vs. Self vs. Satan) \times 2 (Religiousness: Low vs. High) \times 2 (Emotions: Primary vs. Secondary) \times 2 (Valence: Positive vs. Negative) mixed ANOVA was computed on the mean scores of emotion attributions with the two first variables as between-participant factors and the last two as within-participant ones.

All main effects were significant. These main effects were qualified by a series of 2-way interactions. Similar to what was obtained in Study 1, Emotions interacted with Valence, $F(1, 82) = 14.04$, $p < .001$, and Religiousness with Condition, $F(2, 82) = 3.84$, $p < .03$. Of greater theoretical interest, and as predicted, Condition also interacted with Emotions, $F(2, 82) = 21.69$, $p < .001$. Consistent with Study 1, simple effect analyses showed that attributions of secondary emotions to the self ($M = 4.42$, $SD = 1.12$) and to God ($M = 4.02$, $SD = 1.05$) did not differ. In contrast, people tended to at-

tribute fewer primary emotions to God ($M = 3.88$, $SD = 1.06$), $t(60) = 5.24$, $p < .001$, than to the self ($M = 5.17$, $SD = 0.84$). A different pattern of results emerged for Satan. As can be seen in Figure 1B, attributions of *both* primary ($M = 3.54$, $SD = 0.57$) and secondary ($M = 2.84$, $SD = 0.62$) emotions to Satan were significantly lower than attributions of primary ($M = 5.17$, $SD = 0.84$), $t(54) = 8.32$, $p < .001$, and secondary ($M = 4.42$, $SD = 1.12$), $t(55) = 6.51$, $p < .001$, emotions to the self, respectively. Importantly, whereas God ($M = 3.88$, $SD = 1.06$) and Satan ($M = 3.54$, $SD = 0.58$) did not differ in the extent people attribute primary emotions to them, these two entities did differ in terms of secondary emotions, $t(59) = 5.22$, $p < .001$, with God ($M = 4.02$, $SD = 1.04$) being attributed more secondary emotions than Satan ($M = 2.84$, $SD = 0.62$). Condition also interacted with Valence, $F(2, 82) = 8.58$, $p < .001$. As many positive emotions were attributed to God ($M = 4.89$, $SD = 1.22$) and to the self ($M = 5.18$, $SD = 0.95$), whereas both these conditions significantly differed from attributions to Satan, $t(55) = 5.88$, $p < .001$ and $t(59) = 3.99$, $p < .001$ (for the self and God, respectively), with Satan receiving the least positive emotions among all ($M = 3.82$, $SD = 0.77$). The results for negative emotions showed a different pattern. Only the self significantly differed from the other two conditions, $t(60) = 4.47$, $p < .001$ and $t(55) = 6.58$, $p < .001$ (for comparisons with God and Satan), respectively, with the self ($M = 4.41$, $SD = 1.27$) receiving the most negative emotions of all ($M_s = 3.01$, and 2.54 , $SD_s = 1.05$, and 0.82 , for God and Satan, respectively). Finally, religiousness did not interact with any of the above effects.

Replicating findings of Study 1, the second study confirms that God is differentiated from the self on attributions of primary emotions. Specifically, people tend to attribute much fewer primary emotions to God than to the self. Also, consistent with Study 1, attributions of secondary emotions to God and the self do not seem to differ. Interestingly, the pattern of emotional attributions to God cannot be transposed to emotional attributions for other types of supernatural entities. Although both supernatural entities are perceived to experience primary emotions to a lower extent than the self, Satan and God are differentiated in the extent to which participants perceive them to experience secondary emotions. Participants attributed the experience of fewer secondary emotions to Satan than to God and the self. These results confirm our assumption that, God more than other supernatural beings is perceived as similar to human beings, and more specifically, that supra-humanization, at least in terms of not sharing with humans the subhuman animal-like primary emotions *while* at the same time sharing with them secondary emotions, applies to gods and not to supernatural beings in general.

GENERAL DISCUSSION

In two studies, we have investigated the attribution of uniquely and nonuniquely human emotions to God, the self, and Satan. Results confirm, to some extent, our theorization of gods as supra-humans. Specifically, we have shown that people perceive God as sharing with themselves secondary emotions but attribute fewer primary emotions to God than to the self (Studies 1 & 2), thereby dissociating God from human beings on those attributes that relate humans with subhuman animal species.

In addition, we have also shown that results obtained in the attribution of emotions to God do not transpose to another supernatural entity. Indeed, results of Study 2 revealed that whereas attributions of primary emotions to Satan are, simi-

larly to God, fewer in comparison to attributions to the self, attributions of secondary emotions to Satan are much lower than attributions that are made for God and the self. These results are interesting but open to more than one interpretation. First, it may be that Satan is perceived in the continuum of humanness even lower (farther down in the vertical axis of the social world) than outgroups and animals. He is incapable of emotions of any kind. Second, Satan and God may have something in common: both are unembodied, spiritual beings, what may explain that they both are perceived as lacking primary emotions. However, God is perceived as close to human beings in that people attribute secondary emotions to him. On the contrary, Satan may be perceived as incapable of experiencing such emotions, thus lacking humanness at least in terms of emotions (see also Basset & Williams, 2003). Third, it could simply be that Satan is a rather unknown figure that does not represent anything in peoples' lives, especially in secularized countries. People are then unable to tell us anything about him.

The present studies are exploratory. Caution in conclusions is thus needed. First, we have been unable to demonstrate that, in addition to the effect observed on primary emotions, people would also be prone to enhance God in their attributions of secondary emotions. One possible reason is that attributions of emotions to God were compared with attributions of emotions to the self in both studies. Although the choice of self was pertinent, future research on attributions of emotions should also compare God with other, less idealized, central or valued, exemplars of human beings, and with ingroup members. Note also that most dehumanization and infra-humanization research has been conducted on groups rather than individuals (but see, Cortes et al., 2005; Haslam & Bain, 2007). Another interpretation of the results relative to the secondary emotions was advanced by an anonymous reviewer. It could be that more than a single humanness continuum exist. Difference between gods and humans may not just simply be analogous, at the opposite side, of the infra-humanization phenomenon. It is possible that gods differ from humans in a different way (less primary emotions) from the way humans differ from animals (existence of secondary emotions).

Second, attempts should be made at generalizing the results to participants of other ages, cultures, and religions. For instance, in some nonWestern cultures, religions sometimes endorse gods that are more embodied. Consequently, God representations might include, in these cultures, higher degrees of primary emotions than the ones found here. In addition, affects that are considered as ideals for humans differ between cultures (Tsai, Miao, Seppala, Yeung, & Fung, 2007) or between religions (Tsai, Miao, & Seppala, 2007). Third, we have reported in this paper attributions of primary and secondary emotions at the explicit level. We did, however, also intend to test implicit associations of emotions with our social targets. The analysis of the implicit data did not reveal any significant effect of the target. Further studies should be conducted in order to evaluate whether implicit associations of emotions with gods could be revealed or whether the obtained effects only affect explicit attributions.

IMPLICATIONS FOR SOCIAL COGNITION

What may be the implications for social cognition of people's propensity across cultures and societies to somewhat supra-humanize nonhuman agents?

First, establishing a hierarchy on the humanness dimension may be helpful for

what Haidt and Algoe (2004) have called "moral amplification," that is, the hard separation of good and evil in the explanation of behavior. Moral amplification refers to the establishment of a social hierarchy where the social world is seen as organized in a vertical dimension that runs from gods, angels, and saints above down through animals and demons below (Haidt & Algoe, 2004). Specific human emotions such as elevation may result as a consequence of this hierarchy (Haidt, 2003). Humans can then locate themselves in a mid-point, between animals and gods. The perceived superiority of gods allows humans for setting up a strong opposition between (a) animality, a state reminiscent of mortality and provoking the defense against disgust, and (b) divinity, an amplified reaction aiming to face disgust and establish purity and a sense of immortality (Rozin, Haidt, & McCauley, 2000; Rozin, Lowery, Imada, & Haidt, 1999).

Second, if humans are particularly prompt at creating social hierarchies, religion may have played a particular role, from an evolutionary psychology perspective, in this process (Kirkpatrick, 2005). Presuming human-like beings but of higher order may have been particularly helpful for the consolidation of existing hierarchies between groups. It is then not surprising that many religious systems, especially in ancient religions, have developed well-organized systems of hierarchy between kinds of beings, including distinctions between animals, humans, and gods, between different kinds of humans (e.g., ethnic groups, genders) as well as between different kinds of gods.

With respect to this issue, there is considerable evidence that some form of religion implies prejudice and discrimination against outgroups (Batson, Schoenrade, & Ventis, 1993; Hunsberger & Jackson, 2005). These outgroups include people who are of other religions, nonreligious people, socially stigmatized people, or, more generally, people who are perceived as threatening religious people's values. We argue that believing in the existence of a God who has nothing to do with animal species and who could even be superior to human beings, may serve to legitimize people's propensity to infra-humanize others, making them appear animal-like.

Third, our theorization and subsequent first exploratory studies suggest that the evolutionary advantages of perceiving gods as superior human-like agents result from the perception of the later as not only having a human-like *intellect* (Boyer, 2001) but also as having uniquely human *emotions*. By making an emphasis on human emotions, we complement Boyer's (2001) idea that people attribute to some supernatural agents elements from the naive psychology of human beings. Gods are treated as humans rather than as nonhuman animated beings or artifacts. In this direction, we argue that the counter-intuitive elements that distinguish gods from humans are not *simple* violations of lay psychology, biology or physics, but violations that establish them as *supra*-humans.

Fourth, conceiving the existence of higher-order super-natural beings as ideal beings may push people for self-transcendence. If human-like beings of higher order exist, then I can possibly do (feel, think, act) better than I usually do. There is, for instance, empirical evidence that religion and/or spirituality are beneficial for self-esteem and self-control (Koenig, McCullough, & Larson, 2001), and values reflecting self-transcendence (Saroglou, Delpierre, & Dernelle, 2004).

CONCLUSION

To sum up, based on and extending the infrahumanization theory on emotions, we

argued and found initial evidence that gods function in people's mind as superior beings sharing with humans the high side of human emotions and being exempt from the low side of emotions humans share with "inferior" beings such as outgroups or animals. This *ontological*—not only moral—*amplification* of the hierarchy that organizes the social world may help us to better understand the paradox of human motives, cognition, and behavior. Attending too far up a vertical axis may lead people to inferiorize the equals with whom we share a horizontal axis.

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