Exploring the Atheist Personality: Well-being, Awe, and Magical Thinking

In Atheists, Buddhists, and Christians

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Summary

Atheists are America's least trusted group, and stereotypes about them abound: Atheists are nonconformist, skeptical, cynical and joyless, rarely experiencing awe. Atheists (N=42) were recruited from the American Atheist website and compared to Christians (N=22) and Buddhists (N=18). Groups were highly similar in their reported wellbeing, empathy, and other personality scales, but differed strongly on scales assessing Spirituality and Magical Ideation, where atheists rejected the concepts of spirituality and magical beliefs. However, to the free-response question, "Have you ever felt wonderment or felt as if you were part of something greater than yourself?", 71% said "yes". Atheists provided descriptions of situations when these feelings were aroused by Nature (54%), Science, (30%), Music/Art (12%), and Human cooperation (8%). Absence of belief in God was explained by respondents as deriving from a preference for logic and rationality, and thus "blindness to God" may derive from a basic intellectual orientation. The overall impression from scales and free response questions is that the stereotype of atheists as logical, skeptical, and nonconformist has a basis in fact, but the stereotype of atheists as cynical and joyless does not.

Keywords: Atheism; religiousness; spirituality; awe; well-being; personality

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Introduction

Identifying as an atheist is rare in the United States. In the 1998-1999 International Social Survey Program, 14% of Americans declared themselves to have no religious affiliation ("Nones"), but only 3% said they positively did not believe in God (Hunsberger & Altemeyer, 2006), and only 1% self-identified as atheist (Edgell, Gerteis, and Hartmann, 2006; cf. Zuckerman, 2006). Atheists are America's least trusted group (Edgell et al., 2006) and popular stereotypes portray them as nonconformist, skeptical, cynical, and joyless, lacking the experience of awe and a basis for morality (Jenks, 1987; Harris, 2006a). Recent books by atheists have attempted to rebut these criticisms and defend atheism as rational (Dennett, 2006; Harris, 2006b), or to promote atheism as superior to religious world views (Dawkins, 2006). Edgell et al. (2006) argued that Americans consider atheists to be persons who have rejected the basis of moral solidarity and cultural membership in American society. Atheists' reputed non-conformist attitudes (discussed in Beit-Hallahmi, 2006) may protect them from the feelings of rejection associated with social stigma. As a practical matter, negative repercussions of out-group membership may be few, since in daily life atheists can "pass" (2006). They may also live and work in enclaves, such as academia, where atheism is less stigmatized (Beit-Hallahmi, 2006).

Given that atheists are perceived as a social out-group and that atheists are rare in America, it is plausible that atheists will differ in personality traits from religious believers (Argyle, & Beit-Hallahmi, 1975). Religious beliefs are associated with higher self-esteem, health benefits, and effective coping strategies (Beit-Hallahmi & Argyle, 1997; Ellison, Boardman, Williams, and Jackson, 2001; Strawbridge, Cohen, Shema, & Kaplan, 1991; Pargament, 1997), although one study suggests that religious upbringing is uncorrelated with adjustment in adulthood (Hunsberger, Pratt, & Pancer, 2001). Do atheists miss these benefits, or do they find other routes to well-being and coping with adversity? Related questions, suggested by Sam Harris' (2006) "10 myths", include whether atheists experience awe, and how individuals come to self-identify as atheists.

Atheists have been characterized as attracted to reflective, deliberative cognition (Barrett, 2004). Atheists self-identify as intellectuals and are socially nonconformist and politically liberal (Argyle &

Beit-Hallahmi, 1975; Hunsberger & Altemeyer, 2006). Atheists tend to be well educated and are over-represented among scientists, academics, and Nobel laureates (Beit-Hallahmi, 2006). In a major study of over 800 Australian psychology majors (Hunsberger and Brown, 2001), the most important factor in explaining non-belief was intellectual orientation while the second most important factor was low emphasis on religion in the home.

The current study examines personality attributes in "card carrying atheists," persons who self-identify as atheists and are members of atheist associations. We assembled a battery of questionnaires and free-response questions and distributed them to atheists contacted via the American Atheist website. For comparison purposes, we distributed these questionnaires to a small set of Christians and Buddhists. The measures used address many of the "10 myths about atheism" discussed by Harris (2006a). Two of these are that atheists are "closed to spiritual experience" and "believe that life is meaningless". We administered The Spirituality Scale (Delaney, 2003) to assess how atheists respond to spiritual questions, such as valuing nature and having close relationships, and the perception of a meaningful life. Perhaps the hallmark of atheists' personality is the emphasis on materialism and naturalism. To document the extent of this emphasis we administered the Magical Thinking Scale (Eckblad & Chapman, 1983). Atheists have been perceived as dissatisfied with their life and cynical loners (Jenks, 1987), and thus we administered a measure of subjective wellbeing, the Friedman Wellbeing Scale (Friedman, 1992), which measures happiness and wellbeing. Atheists were also asked to completed Neff's (2003) Self-Compassion Scale and Davis' (1983) Interpersonal Reactivity Index. Subscales in these instruments assess a variety of types of empathy, compassion, and social relations. Our free response questions also addressed the one of the "myths" discussed by Harris (2006a), as we asked about the source of moral decisions and whether atheists experience awe. We expected atheists to differ strongly on the Spirituality Scale and the Magical Ideation Scale. We expected smaller differences on the remaining scales.

Method

Participants

Participants were 42 atheists (46% male), 19 Roman Catholics (26 % male), and 18 Buddhist meditators (50% male) between the ages of 20-65. Respondents completed questionnaires which they mailed back at their convenience in stamped, self-addressed envelope provided with the questionnaire. Almost all of the respondents identified themselves as Caucasian (97%). Groups did not differ in age, with average age being 45 for atheists (range 20-65, sd 13), 44 for Christians (range 22-65, sd 16), and

42 for Buddhists (range 22-63, sd 14). Christians were recruited from among congregants of a church in Boston and the choir of a church in rural Maryland. The Buddhist meditators were recruited from the Boston Shambhala Center and the Dzogchen Center of Cambridge. Atheist respondents were recruited by sending questionnaire packets to the organizers of associations listed on the American Atheist website (Heartland Atheists, Atheists Station, Colorado Atheists, and Minnesota Atheists.

Measures

The following five scales were administered.

The Spirituality Scale. The Spirituality Scale (Delaney, 2003) consists of four subscales with Likert ratings (all items appear in Table 1). Delaney explained the construct tapped by her scale as follows: "Spirituality has evolved from a term synonymous with religion, moving to an association with a search for meaning and purpose, extending to the inclusion of relationships and recognition of holism, and finally to a connection to the environment and cosmos" (Delaney, 2003, p. 151).

Magical Ideation Scale. Traditionally the MIS is a thirty-item dichotomous scale that requires participants to select a statement as true or false, however, in the current study, participants rated their agreement using a 6-point Likert scale. Items refer to magical, superstitious, and supernatural ideas that frequently occur in thought disorders such as schizotypy and schizophrenia (Eckblad & Chapman, 1983).

Friedman Wellbeing Scale. The Friedman Wellbeing Scale is a twenty item scale consisting of bi-polar adjectives describing wellbeing (i.e. *angry* vs. *calm*). Participants are asked to choose between the two adjectives that describe their emotional state 'at the present time' and rate it on a 0-10 scale.

Self-Compassion Scale. Participants rate their agreement with twenty-six items concerning self compassion on a 4-point Likert rating scale. High-scores indicate a high degree of self-compassion. The scale contains six subscales: self-kindness, self-judgment, common humanity, isolation, mindfulness, and over-identification.

Interpersonal Reactivity Index. Four subscales measure empathy and perspective taking using a 4-point Likert scale.

Religious background questions. Participants were queried about their religious belief, frequency of church attendance and frequency of prayer/meditation. They were additionally asked about their

religious beliefs as a child and whether (and why) they had converted to a new belief. A final question was, "In what ways have your beliefs been the most helpful in your life?"

Free-response questions for atheists. Atheists respondents received an additional questionnaire containing a variety of free-response questions.

Results

Group comparisons on self-report scales

One-way analysis of variance (ANOVA) was carried out on each scale (and subscale).

The Spirituality Scale. On this scale only, Christians and atheists crossed out words and wrote comments in the margins. For example, one Christian crossed out words in item 18 and wrote, "Not a higher power, it is ***GOD***." Atheists reported that it difficult to respond to questions containing words like *sacred* and *spiritual*. The comments reveal attitudes of these groups to specific words, and thus Table 1 provides a list of the comments on the scale.

To allow exploratory quantitative data analysis, 1 atheist and 1 Christian who had left 5 or more of the 23 items unanswered were deleted. Statistical analysis on the resulting data was consistent with the impression obtained by scrutinizing item responses in Table 1. On the Eco-awareness subscale, atheists had lower scores (meaning less agreement with the items) than did the Christians/Buddhists, $t(76)=3.1$, $p < .01$, while the Christian and Buddhists did not differ from each other. On the Self Discovery subscale, atheists endorsed fewer statements than did the Christians/Buddhists, $t(76)=4.2$, $p < .001$. No group differences were obtained for the relationship items. On the Sacredness/Higher Power subscale, atheists strongly disagreed with the items while the other two groups largely endorsed them, leading to a large difference in subscale scores, $t(76)=12.9$, $p < .0001$. Interesting, Christians had higher scores (meaning stronger agreement with the items) than did Buddhists, $t(35)=3.9$, $p < .001$.

Magical Ideation Scale. Atheists had the lowest mean score, 1.4, compared to Christians, 2.1 and Buddhists, 2.4. The main effect of group yielded $F(2,77)=16.0$, $p <.0001$, $eta^2=.30$.

Wellbeing Scale. Across the subscales, the mean scores for the three groups ranged from 49 to 55 (50 represents an average level of well-being; Friedman, 1992). The three groups did not differ on composite well-being, with means of 53.5 for the atheists, 50.4 for the Buddhist Meditators, and 54.7 for

the Christians, differences which were not statistically significant, $F(2,75)=1.3$, $p > .3$. No differences were obtained for the subscales of sociability, self-esteem, joviality, happiness; all $F < 1$.

The Self Compassion Scale. No group differences or even trends were found on the total score, or the six subscales (self-compassion, self-judgment, common humanity, isolation, mindfulness, over-identification).

Interpersonal Reactivity Index. The three groups were highly similar on the Interpersonal Reactivity Index (Davis, 1983) and its four subscales, Empathic Concern, Perspective-Taking, Fantasy, and Personal Distress. This disconfirmed our hypothesis that Buddhist meditators would have higher levels of Empathic Concern because of the emphasis placed on cultivating empathy for the other which is central to many meditation practices. Empathic Concern subscale averages were within 1 point of each other, $F < 1$.

Atheist responses to open questions

To organize the free response questions, we compared our atheists' responses to reports in Vetter & Green's (1931) and in Hunsberger & Altemeyer (2006).

Parents' religious beliefs. As shown in Table 2, 6% of respondents reported having an atheist parent. This percentage is at least double the typical report of 1% to 3% of atheists in the general population (Hunsberger & Altemeyer, 2006).

Age at embracing atheism. Table 3 lists the percentage of respondents who rejected supernaturalism by age of decision, and compares these to ages reported in Vetter and Green (1931). The main change over 75 years is the increase in percentage of respondents who made this decision before age 15 (29% vs. 7%), and a decrease in percentage who made this decision from 15-24 years of age. The finding that only 13% said they never believed in God is consistent with Hunsberger and Altemeyer's (2006) report that that most of their atheists believed in God during childhood, even when parents did not emphasize religion.

Reasons for the loss of faith. Consistent with reports in Hunsberger and Altemeyer (2006), respondents emphasized intellectual reasons: religion didn't make logical sense (47%) or didn't fit with science (12%; see table 4). Emotional reasons such as disappointment or negative personal experiences

were listed by 27% of participants, indicating a significant minority of atheists do reference non-intellectual reasons.

Who or what influences your moral decisions? Most respondents (85%) named sources that we categorized as "internal" sources, in that they were personal principles or beliefs (see Table 5). External sources were moral principles which are known to exist as cultural teachings. Surprisingly, family and friends were cited by only a few respondents, and philosophical and other texts were only rarely mentioned. This question has not been asked in other studies of atheists.

Feelings of wonderment. As show in Table 6, the majority of respondents (71%) affirmed that they had experienced feelings of wonderment. Of those, nature was most often named as eliciting feelings of wonderment (54%), with science the next most common source (29%).

Discussion

Contrary to the suggestion that that atheists are unhappy with their life, friends, and work (Jenks, 1987), our respondents did not differ from Christians and Buddhists on measures of sociality, joviality, emotional stability, and happiness. Americans perceive atheists to be untrustworthy (Edgel et al., 2006), but our atheist respondents did not differ from the Christians and Buddhists in their compassion or empathic concern.

Atheists disagreed more strongly than did Christians and Buddhists with items expressing magical thinking (Magical Ideation Scale) and sacredness/spirituality (Spirituality Scale). Our atheist respondents strongly disagreed with many statements that were endorsed by Christians and Buddhists, including all statements mentioning a "Higher Power" or "Universal Intelligence." Low MIS scores indicate a vigorous rejection of supernaturalism, consistent with the emphasis on rationality and logic documented by Beit-Hallahmi (2006) and Hunsberger and Altemeyer (2006).

The age at which atheists decided that they did not believe in God was younger than reported by Vetter and Green (1931): 29% vs. 7% made this decision between 15-24 years of age. The centrality of adolescence in the formation of religious identity and in dramatic identity transformations, such as conversion, has long been recognized (Argyle & Beit-Hallahmi, 1975; Beit-Hallahmi & Argyle, 1997; Hyde, 1965). Students of adolescence have noted that it is intellectual development at that stage which contributes to a growing distance from religious tradition (Ausubel et al., 1977; Garrison, 1965; Jersild, 1963)

Consistent with reports in Hunsberger and Altemeyer (2006), roughly 3/4 of atheists provided mostly intellectual reasons, not emotional ones such as tragic life events (e.g., death of a parent; cf. Vetter & Green, 1931) or personal negative experiences with religious institutions. It has been proposed that the absence of religious belief arises out of "anger at God" (Novotni & Petersen, 2001; Exline, 2003) because one of the few ways that people have to express displeasure with the gods is by retracting belief. However, none of the respondents mentioned anger at supernatural beings, and only one referred to "unanswered prayer" in discussing atheism. This is consistent with Vetter and Green's (1931) finding that "the futility of prayer" was rarely listed when respondents describe the cause of their apostasy.

One of the popular claims identified by Sam Harris is that atheists lack a foundation for morality. Our question, "Who or what influences your moral decisions?" was an attempt to have atheists directly speak to this question. Most respondents referred to personal principles and beliefs, while a minority mentioned family, friends, and written texts as sources of influences. There are provocative social-science findings showing that research participants will behave in a more altruistic manner when religious themes have been brought up (Shariff and Norenzayan, 2007; Sosis, 2005), but there have been some contrary findings as well (Beit-Hallahmi & Argyle, 1997).

One of the myths discussed by Harris (2006a) is that atheists believe life is meaningless, and/or they refuse to discuss meaning and purpose. On the spirituality scale, atheists were as likely as Christians and Buddhists to agree with the statements "I find meaning in life experiences" and "I have a sense of purpose." Atheists were highly similar to Christians and Buddhists in their endorsement of statements that did not use spiritual or religious language.

Some researchers have identified constructs such as "eco-awareness" (e.g., respect for nature), human relationships, and self-discovery as aspects of "spiritual awareness", even though they are devoid of any "spiritual" content (Delaney, 2003). Atheists in our sample agreed with statements tapping these constructs to the same degree as did Christians and Buddhists, when such statements did not contain terms such as "sacred" and "spiritual." Atheists strongly disagreed with statements containing these terms and with statements that referenced nonmaterial entities, as exemplified by their rejection of the statement, "I believe there is a connection between all things that I cannot see but can sense." Emmons (2000) has argued for a "spiritual intelligence" which includes "the ability to invest everyday activities, events, and relationships with a sense of the sacred" (p. 3). Delaney's (2003) Spirituality Scale

contained items which are consistent with this proposed ability, which were uniformly rejected by the atheists, specifically, "I see the sacredness in everyday life" and "The earth is sacred" (see Table 1).

Atheists' responses to the Spirituality Scale indicate that they are "closed to spiritual experience," if spiritual experience is defined as investing ordinary experiences with a sense of the sacred and feeling comfortable using phrases such as "my spiritual nature" or "my inner spirit". Atheists, by definition, do not believe in the world of the spirits, and thus are non-"spiritual". This does not prevent them from finding purpose and meaning in life experiences, valuing nurturing relationships, and agreeing with the statement "I strive to correct the excesses in my own lifestyle patterns/practices. This is illustrated by respondents' endorsement of "I use silence to get in touch with myself" and their rejection of " I meditate to gain access to my inner spirit." Similarly, our atheist sample endorsed "I believe that nature should be respected," but rejected "The earth is sacred." Our findings resonate with those of Pasquale (2007), who found that atheists rejected the concept of a transcendent entity, yet approximately a third of atheists would use spirituality in a psychological or experiential sense (such as awe or appreciation of nature, of an emotional reaction to art or aesthetic beauty).

In addressing the claim that atheists are closed to spiritual experience, Sam Harris (2006a) wrote, "there is nothing that presents an atheist from experiencing love, ecstasy, rapture and awe. Atheists can value these experiences and seek them regularly." The atheists in our sample substantiated this claim and provided examples, from the short to the lengthy, of their experiences of wonderment and awe. Nature was most frequently cited as the source of wonderment, but the marvels of science, music, and art were mentioned, and also wonderment at human cooperation and human athletic abilities.

Our data indicate that prevalent notions and measures of "spirituality" err at combining concerns about meaning in life and awe experiences, which may exist outside a religious frame of reference, and supernaturalist beliefs. "Spirituality" is indeed the belief in spirits, and the use of this term should be limited to such beliefs. The undifferentiated and over-inclusive manner in which it has been used implies that everybody is "spiritual", because very few people are not concerned about meaning and purpose in their lives.

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Table 1: Item means organized by subscale for Atheists, Christians and Buddhists

Subscales and items *(numbers in parentheses indicate how many respondents made this comment)*	Agree = 3-4; Disagree =1-2			Number Omitting a Response		
	Ath	Chrs	Bddh	Ath	Chrs	Bddh
EcoAwareness						
I believe that all living creatures deserve respect [Atheists: *what does respect mean? We must kill to eat and live*]	3.3[cb]	3.6	3.7	0	0	0
I believe there is a connection between all things that I cannot see but can sense [Atheists: *At the historical and cellular levels; "some connection"; some things are connected and some things aren't*]	2.2[cb*]	3.2	3.4	3	2	0
I live in harmony with nature [Atheists: *I try but my culture won't let me; We are killing ourselves and our planet]*	3.0	2.9	3.1	1	0	0
I believe that nature should be respected [Atheists: *What is respect? Not eaten?]*	3.4	3.3	3.4	0	1	1
At times, I feel at one with the universe [Christians: *Just what is the "universe"?*]	2.7	2.8	3.1	0	0	0
The earth is sacred [Atheists: *The earth is our home so it should be valued; No. Worthy of respect and should be safe-guarded*]	*Item deleted from analysis*			5	0	1
Relationships						
I value maintaining and nurturing my relationships with others [Christians: *The most important relationship is with God. This grounds everything else and will always last.*]	3.4	3.6	3.4	0	0	1
I am able to receive love from others	3.5	3.5	3.3	0	0	0
I respect the diversity of people	3.6	3.5	3.6	0	0	0

Self Discovery (Table 1 continued)

Subscales and items *(numbers in parentheses indicate how many respondents made this comment)*	Ath	Chrs	Bddh	Ath	Chrs	Bddh
I find meaning in my life experiences	3.5	3.7	3.6	0	0	0
I have a sense of purpose	3.3	3.6	3.5	0	0	0
I am happy about the person I have become	3.4	3.4	3.3	0	0	0
I strive to correct the excesses in my own lifestyle patterns/practices [Atheists: *excesses are subjective;* Buddhists: *depends on what you mean by excesses: if you mean possession, clutter of home, mind and spirit, then yes*]	3.2	3.2	3.4	0	0	0
My life is a process of becoming [Atheists: *I don't know what this means; Becoming what?* (2); Buddhist: crossed out becoming, wrote "being"]	2.9[cb]	3.5	3.1	1	1	0
I meditate to gain access to my inner spirit	1.8[cb]*	2.7	3.3[c]	1	0	0
I use silence to get in touch with myself [Buddhists: *Harder for me but important]*	2.9	2.8	3.4[c]	0	1	0
My spirituality/personal beliefs give me inner strength [Atheists: crossed out spirituality or circled personal beliefs (4)]	2.8[cb]*	3.5	3.6	0	0	0
I often take time to assess my life choices as a way of living my spirituality/personal beliefs [Atheists: crossed out spirituality or circled personal beliefs (4)]	2.7[cb]*	3.2	3.3	2	0	0
Sacredness/Higher Power						
I believe in a Higher Power/Universal Intelligence [Christians: *Not a higher power, God* (2)]	1.4[cb]*	3.8	2.9[c]*	0	0	1
I have a relationship with a Higher Power/Universal Intelligence [Atheists: *Same as 9, and 18: What is, is. Higher or lower makes no sense*; Buddhists: *I wouldn't call it a relationship*]	1.2[cb]*	3.6	2.7[c]*	1	0	0
My faith in a Higher Power/Universal Intelligence helps me cope during challenges in my life	1.3[cb]*	3.8	3.0[c]	0	0	0
Prayer is an integral part of my spiritual nature	1.3 [cb]*	3.5	2.8[c]	1	0	1
I see the sacredness in everyday life [Atheists: *What is sacredness? (*3)]	*Item deleted from analysis*			6	0	1

Table notes. [cb]Atheists differed from Christians and Buddhists, $p < .05$

Table 2: Parent's religion during childhood

Parent's Religion During Childhood	
Christian (un-specified)	29%
Catholic	27%
Protestant	26%
None	**9%**
Atheist	**6%**

Table 3: Age of atheist conversion

At what age did you come to the belief that God did not exist?		
	Current Sample	1931 STUDY
Never believed	13%	9%
Under 15	29%	7%
15-24	37%	59%
25+	21%	25%

Table 4: Cause of conversion

How did you come to the belief that God did not exist?	
Science/logic	
Didn't make logical sense	47%
Didn't Comply with Science	12%
Disappointment/emotional	
Negative Personal Experience	9%
Hypocrisy of religion/church	15%
God did not meet expectation	3%
No specific information	
Don't remember	6%
Left Blank	15%
Other	

"Eyes opened to new world views in college" "It just occurred to me there was no one living in the sky or they had no effect on my life" "By the time I was in college I was a total feminist and continue to be to this day. Most [religions] seem heavily patriarchal and obsessed with obedience and punishment."	21%

Table Notes. Percentages sum to 128% because some respondents provided more than one reason.

Table 5: Moral influences

Who or What Influences Your Moral Decisions?		
Internal	Personal ethics, reason, common sense	85%
Moral Principle	Do unto others… The well-being of humanity as worthwhile goal	32%
Personal relationships	Family, Friends	9%
Exemplary People	Great spiritual leaders from the past The Founding Fathers	6%
Philosophical Text	Humanism General reading of philosophy	6%
Other Text	General reading of history	6%
Left blank		3%

Table 6: Feelings of awe

"Religious people often talk about feelings of wonderment and of being a part of something greater than themselves, which they often attribute to God or God's work. Have you ever felt wonderment or felt as if you were part of something greater than yourself? …."

Yes	71%
No	17%
Left blank	12%
"**If so, what provoked these feelings?"**	
Nature	54%
Science	29%
Music/Art	12%
Human cooperation	8%
Sports	4%
Non-religious group	4%
Patriotic event	4%
Other	17%
"To what do you attribute these feelings of awe?"	
Science	46%
Universe, feeling of something greater than self	17%
Other	13%
Left blank	33%