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Blessed are the meek? Honesty-humility, agreeableness, and the HEXACO structure of religious beliefs, motives, and values



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ABSTRACT

Reviews of personality and religion have suggested that high agreeableness and high conscientiousness are associated with higher religiosity. Using the HEXACO model as a framework, the present work examined the recent suggestion that religion is rooted in honesty-humility rather than agreeableness. A sample of 137 young adults from a relatively conservative and predominantly Christian region of the United States completed the 100-item HEXACO-PI-R and a wide range of measures related to religion (general religiosity, intrinsic and extrinsic religious orientations, Biblical fundamentalism, rejection of Christian institutions and practices) and to broader values and ideologies that shed light on the character of religiosity (political liberalism and conservatism, right-wing authoritarianism, humanitarian-egalitarian values, and Protestant Work Ethic values). The findings offered strong support for the HEXACO approach: honesty-humility significantly predicted nearly all of the religion outcomes, but the effects of agreeableness were significantly smaller and essentially zero. Honesty-humility and agreeableness were not significantly related to the broader values and ideologies. Facet-level analyses suggested that the H-Fairness facet uniquely predicted higher religiosity, whereas the A-Patience facet tended to predict lower religiosity. Taken together, the findings strongly support the HEXACO analysis of religiosity and the broader value of distinguishing between honesty-humility and agreeableness as interpersonal traits.

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1. Introduction

Religious beliefs, motives, and practices are related, in part, to the personalities of the people who practice them. Variation in how important people find religion and the kinds of beliefs, traditions, and institutions they endorse are related to major dimensions of personality (see Saroglou, 2010). A common finding from the Big Five literature is that religiosity—people's interest in and involvement with religion—is associated with high agreeableness and high conscientiousness. Recent research with the HEXACO model (Ashton & Lee, 2007), however, has suggested that a more differentiated look at personality and religiosity is called for. In a recent summary, Lee and Ashton (2012, chap. 8) contrast the roles that honesty—humility (H) and agreeableness (A) play in religious beliefs and practices. They suggest that religiosity is in fact more associated with H than with A, given H's emphasis on humility, modesty, and morality.

A small body of work offers some support for distinguishing between H's and A's role in religion. To date, research on religiosity

in the HEXACO has focused on measures of global religiosity, such as measures of the importance of religion in people's lives or selfidentification as a religious person. In some cases, H does correlate more highly with religiosity than A. For example, Lee, Ogunfowora, and Ashton (2005) found that the religiosity subscale of the Supernumerary Personality Inventory (Paunonen, Haddock, Forsterling, & Keinonen, 2003) correlated more highly with H (r = .26) than A (r = .16). In two overlapping samples, Aghababaei (2012, 2014) found that H correlated more strongly than A for responses to the single item "How interested are you in religion?", although the difference was much larger in one subset of the sample (H, r = .42; A, r = .16) than for the full sample (H, r = .34; A, r = .24). Another study, however, found essentially the same relationships between H and A with the spirituality self-rating scale (H, r = .29; A, r = .31), a measure of intrinsic interest in religion (Aghababaei, Wasserman, & Nannini, 2014).

Understanding how H and A relate to religion can inform the ongoing development of the HEXACO model, which largely hinges on the distinction between H and A, and help refine models of how personality shapes religious beliefs and practices. In the present work, we expand on this literature in several important ways. First, we assessed a broad range of beliefs, motivations, and values related to religion. Past work to date has focused on a limited range

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of constructs. For example, all studies have assessed global religiosity (Lee et al., 2005), and several have assessed intrinsic and extrinsic religious orientations, usually measured with single items (Aghababaei, 2012, 2014). Thus far, then, research has focused on motivational constructs: the global importance of religion in people's lives (religiosity) and motivated reasons for engaging in religious practices (intrinsic and extrinsic orientations). Such constructs should be complemented with measures of the content of the beliefs themselves, a distinction that roughly mirrors the definitions of religion that emphasize the functions they serve versus the ideas they contain (Berger, 1974). For example, two people might both be highly religious for intrinsic reasons, but one might adhere to Biblical literalism and endorse ideologies such as rightwing authoritarianism (RWA; Altemeyer, 1981), whereas the other might reject literalism, have unfavorable attitudes toward entrenched religious institutions, and endorse humanitarian-egalitarian values (Katz & Hass, 1988).

Studying a broader range of constructs related to religion can illuminate the substance and nuance of religious motivations, which is essential to a comprehensive understanding of personality and religion. The present study thus measured religiosity and religious orientations, as in past work, along with a much larger set of constructs, such as people's attitudes about Christian religious institutions, the content of their beliefs (e.g., Biblical fundamentalism), and broader ideologies that shape and clarify religious beliefs, such as endorsement of liberalism–conservatism, humanitarianism, right-wing authoritarianism, and Protestant Work Ethic values.

Second, we examined relationships with both the HEXACO factor-level and facet-level scales. Most past work has examined only the broad HEXACO factors. Some studies (Aghababaei, 2014) have explored the facets using the 60-item HEXACO, which has few items for each facet and is thus not ideal for examining facet-level effects. Using the longer 100-item form (Lee & Ashton, 2004), we followed up the factor-level analyses by exploring whether particular H and A facets uniquely contributed to the prediction of religious and related outcomes.

2. Method

2.1. Participants

A sample of 137 undergraduate students (92 women, 45 men) volunteered to participate as part of a research option in a psychology course. The participants were young (average age = 18.9, SD = 1.87, range = 18–38) and diverse (33% African American, 59% European American). The participants lived in central North Carolina, a conservative-leaning state that is part of the American "Bible Belt" of states known for especially high religious involvement. Twelve people had participated but were not included, either because they did not complete all the measures (4 cases), they were severe multivariate outliers (1 case), or they scored higher than 2 on a revised version of the Chapman and Chapman (1983) infrequency scale (7 cases), which assesses random, inattentive, or "fake bad" responding (cf. Maniaci & Rogge, 2014). All participants provided informed consent. We have archived the raw data at Open Science Framework (http://osf.io/afnqv), and we invite researchers to conduct their own analyses and use the data for their own purposes.

3. Measures

3.1. Personality

We measured the HEXACO traits using the 100-item version of the HEXACO-PI-R (Lee & Ashton, 2004), which defines each factor with four facets and measures each facet with four items. This version is a compromise between the HEXACO-200, which offers more reliable facet scales but is twice as long, and the HEXACO-60, which is shorter but not well suited for facet scores. Internal consistency estimates for the HEXACO factors (estimated across the 16 items for each factor) were good: H (α = .78), E (α = .76), X (α = .86), A (α = .78), C (α = .82), and O (α = .75).

3.2. Religiosity constructs

Religiosity was measured with two items: "Overall, how important would you say religion is to your life?" ($1 = Not \ at \ all \ important$, $5 = Very \ important$) and "Overall, would you consider yourself a religious person?" ($1 = No, \ not \ at \ all, \ 5 = Yes, \ definitely$). The items correlated highly (r = .70) and were combined into a single religiosity score.

We measured intrinsic and extrinsic religious orientations with Gorsuch and McPherson's (1989) scale (see Hill & Hood, 1999, pp. 154–156), which measures intrinsic orientation with 8 items (e.g., "My whole approach to life is based on my religion") and extrinsic orientation with 6 items (e.g., "I go to church because it helps me make friends"). People answered each question on a 1 (*Strongly Disagree*) to 5 (*Strongly Agree*) scale. Internal consistency was good (intrinsic α = .82, extrinsic α = .79).

We measured attitudes toward religion with the Rejection of Christianity scale (Francis & Greer, 1990; see Hill & Hood, 1999, pp. 91, 92). Unlike the others, this scale focuses on attitudes and beliefs related to religious institutions, people, practices, and doctrines rather than global religiosity or personal motivations for being religious (e.g., items include "The church is out of date and has no attraction for me" and "The clergy are completely out of touch with young people today"). The scale has 20 items (α = .97) that were completed using a 1 (*Strongly Disagree*) to 5 (*Strongly Agree*) scale.

Finally, religious fundamentalism—a belief in the literal truth of the Bible and in the existence of a single, infallible set of religious truths—was measured with Altemeyer and Hunsberger's (2004) revised religious fundamentalism scale (α = .91). People respond to the 12 items (e.g., "To lead the best, most meaningful life, one must belong to the one, fundamentally true religion" and "It is more important to be a good person than to believe in God and the right religion," reversed) using a 9-point, -4 (*Very Strongly Disagree*) to 4 (*Very Strongly Agree*) scale.

3.3. Related ideologies

Another set of scales assessed values and ideologies that can illuminate and clarify the character of people's religious motivations and beliefs. We measured right-wing authoritarianism (RWA) with Zakrisson's (2005) 15-item scale (e.g., "There are many radical, immoral people trying to ruin things; society ought to stop them" and "If society so wants, it is the duty of every true citizen to help eliminate the evil that poisons our country from within"), using a 1 (*Strongly Disagree*) to 7 (*Strongly Agree*) scale ($\alpha = .78$). We used scales developed by Katz and Hass (1988) to measure Humanitarian-Egalitarian values (10 items, α = .77; "One should find ways to help others less fortunate than oneself") and Protestant Work Ethic values (11 items, $\alpha = .66$; "Most people who do not succeed in life are just plain lazy"); people responded with a 1 (Strongly Disagree) to 5 (Strongly Agree) scale. Finally, we measured the spectrum of political liberalism and conservatism with a 12 item scale ($\alpha = .65$) developed by the Pew Research Center (2012) and used in recent research (Zell & Bernstein, in press). People responded to each statement (e.g., "Business corporations make too much profit" and "Abortion should be illegal in all or most cases"), using a 1 (Completely Agree) to

4 (*Completely Disagree*) scale. The items were coded so that low scores reflect liberalism and high scores reflect conservatism.

4 Results

4.1. Data reduction and measurement model

All models were estimated in Mplus 7.11 (Muthén & Muthén. 2012) using maximum likelihood estimation with robust standard errors. The six HEXACO factors were specified as latent variables. The four items for each facet were averaged to create facet scores. and these facet scores in turn served as the indicators for the latent factors. A confirmatory factor analysis found modest fit overall for the theoretically-specified HEXACO model: χ^2 (237) = 419.09, p < .0001, CFI = .743, RMSEA = .075 (90% CI = .063, .086), SRMR = .095. The main source of misfit appeared to be the emotionality (E) factor's facets, which correlated somewhat weakly with each other and did not all load significantly on the E factor. A model omitting the E factor had somewhat better fit: γ^2 (160) = 262.52, p < .0001, CFI = .827, RMSEA = .068 (90% CI = .053, .083), SRMR = .085. Modification indices (minimum MI = 10) identified only a handful of cross-loadings or residual covariances (maximum MI = 15.17). Because E was not of substantive interest in this work, we retained the full six-factor, theoretically-based specification (Lee & Ashton, 2004) for the following models, but researchers should keep the somewhat weak model fit in mind, particularly when evaluating the effects of E. All reported coefficients are standardized.

4.2. HEXACO structure of religiosity

We ran separate models for each outcome (except intrinsic and extrinsic orientations, which were outcomes in the same model). Table 1 lists the standardized regression weights for each HEXACO factor along with 95% confidence intervals around the weights, which illustrate whether a coefficient differs from zero or from other coefficients in the same row. On the whole, the HEXACO factors explained notable variance in each outcome.

Most relevant to our purposes were potential differences between H and A. Consistent with past theorizing (Lee & Ashton, 2012, chap. 8), H and A differed for many of the outcomes, with H, not A, emerging as the factor most associated with religious constructs. As Table 1 shows, H significantly predicted higher

global religiosity (β = .34), higher intrinsic religious orientation (β = .31), lower rejection of Christianity (β = -.41), and higher fundamentalism (β = .29). For each, the effect of A was not significant. And as the confidence intervals illustrate, the effects of H were significantly different from the effects of A for those these outcomes. For extrinsic religious orientation, neither H (β = .23) nor A (β = -.06) differed significantly from zero, but the coefficients for H and A differed significantly from each other (people high in H were more extrinsically religious). And for the remaining outcomes, neither H nor A had effects that differed significantly from zero or from each other.

In short, religion was clearly associated with H, not A. People higher in H were significantly more likely to describe religion as important to their lives, to endorse both intrinsic and extrinsic (marginally) motives for religion, to have less negative attitudes toward institutions, people, and doctrines associated with Christianity, and to have beliefs that adhere to Biblical literalism.

4.3. Facet-level findings

Our next analyses explored facet-level effects of H and A. To simplify the models, we omitted the facets for the other four factors. The four facets for H (sincerity, fairness, greed-avoidance, and modesty) and for A (flexibility, patience, gentleness, and forgiveness) were included as predictors; each outcome (except the two religious orientations) was evaluated in a separate model. Internal consistency estimates were generally good for the facets in light of their 4-item length: sincerity (α = .57), fairness (α = .61), greed-avoidance (α = .77), modesty (α = .51), flexibility (α = .52), patience (α = .71), gentleness (α = .54), and forgiveness (α = .67).

Among the H facets, H-Fairness—a facet associated with morality, integrity, and a reluctance to exploit others—emerged as a consistent predictor. People higher in H-Fairness reported higher religiosity (β = .31, p < .001), higher intrinsic (β = .30, p < .001) and extrinsic religious orientations (β = .23, p = .016), less rejection of religion (β = .36, p = .001), higher Biblical fundamentalism (β = .21, p = .033), higher political conservatism (β = .19, p = .032), and higher right-wing authoritarianism (β = .23, p = .007). The only other H facet to emerge as a significant predictor was H-Modesty, which had a marginal negative effect on Protestant Work Ethic values (β = -.20, p = .066).

Table 1Effects of the HEXACO factors on religious outcomes and related values and ideologies.

Outcome	Honesty-humility	Emotionality	Extraversion	Agreeableness	Conscientiousness	Openness to experience
Religiosity	<u>.34</u>	06	.26	01	03	<u>22</u>
	(.08, .60)	(46, .34)	(03, .54)	(30, .28)	(31, .25)	(42,01)
Intrinsic orientation	<u>.31</u>	01	.22	04	08	09
	(.05, .56)	(30, .28)	(04, .49)	(33, .25)	(35, .19)	(27, .09)
Extrinsic orientation	.23	.18	<u>.39</u>	06	24	11
	(03, .49)	(10, .45)	(.12, .67)	(33, .22)	(49, .01)	(34, .12)
Fundamentalism	<u>.29</u>	.09	<u>.25</u>	06	07	<u>21</u>
	(.02, .56)	(28, .46)	(.02, .49)	(30, .19)	(34, .19)	(41,01)
Rejection of Christianity	<u>41</u>	09	<u>25</u>	.08	01	<u>.20</u>
	(67,14)	(41, .24)	(50,01)	(16, 32)	(24, .23)	(.01, .41)
Political conservatism	.10	09	.10	06	04	13
	(17, .36)	(40, .23)	(13, .33)	(34, .22)	(34, .26)	(34, .08)
Right-Wing authoritarianism	.17	06	<u>.27</u>	.08	05	<u>34</u>
	(12, .46)	(35, .23)	(.01, .54)	(18, .33)	(36, .27)	(56,12)
Humanitarian-egalitarian values	.13	<u>.38</u>	.16	.17	21	.00
	(17, .43)	(.16, .60)	(09, .42)	(06, .41)	(46, .04)	(20, .19)
Protestant Work Ethic Values	20	.10	<u>.29</u>	03	07	.10
	(45, .05)	(15, .35)	(.07, .52)	(28, .21)	(29, .16)	(09, .29)

Note: *n* = 137. Coefficients are standardized regression weights. Underlined values are significantly different from zero. 95% confidence intervals around the weights are in parentheses. These can be used to identify coefficients that different significantly from zero and from other coefficients in the same row.

Table 2Effects of H and A Facets on Religious Outcomes and Related Values and Ideologies.

Outcome	H: Sincerity	H: Fairness	H: Greed Avoidance	H: Modesty	A: Flexibility	A: Gentleness	A: Patience	A: Forgiveness
Religiosity	.12	<u>.31</u>	01	09	04	.06	12	.10
	(07, .31)	(.14, .47)	(21, .19)	(29, .11)	(20, .13)	(12, .24)	(31, .07)	(12, .31)
Intrinsic orientation	.07	<u>.29</u>	.01	17	09	.17	<u>18</u>	.14
	(11, .26)	(.13, .46)	(16, .17)	(42, .09)	(29, .12)	(06, .40)	(35, .00)	(08, .36)
Extrinsic orientation	08	. <u>23</u>	13	.11	.07	.16	.01	12
	(26, .11)	(.03, .39)	(28, .05)	(12, .38)	(11, .26)	(02, .40)	(17, .19)	(36, .12)
Fundamentalism	.11	. <u>21</u>	04	.03	12	.06	<u>18</u>	.14
	(08, .31)	(.02, .39)	(24, .15)	(18, .24)	(29, .06)	(14, .25)	(36,01)	(05, .33)
Rejection of Christianity	08	<u>29</u>	01	02	.04	16	.14	01
	(27, .11)	(47,11)	(19, .17)	(23, .19)	(13, .21)	(35, .03)	(04, .31)	(20, .17)
Political conservatism	.06	. <u>19</u>	12	.00	<u>27</u>	07	05	.15
	(15, .27)	(.02, .36)	(34, .10)	(19, .19)	(42,11)	(28, .15)	(25, .14)	(07, .36)
Right-Wing authoritarianism	.17	. <u>23</u>	04	15	17	.01	06	.13
	(03, .37)	(.06, .39)	(27, .20)	(33, .04)	(35, .00)	(22, .25)	(24, .12)	(09, .35)
Humanitarian-egalitarian values	02	01	.03	.09	.03	. <u>25</u>	07	.11
	(18, .15)	(17, .16)	(17, .22)	(11, .29)	(14, .19)	(.07, .43)	(28, .13)	(10, .33)
Protestant Work Ethic Values	.02 (18, .22)	.03 (15, .21)	02 (22, .18)	20 (42, .01)	11 (28, .05)	.13 (06, .31)	02 (27, .24)	05 (31, .20)

Note: *n* = 137. Coefficients are standardized regression weights. Underlined values are significantly different from zero. 95% confidence intervals around the weights are in parentheses. These can be used to identify coefficients that different significantly from zero and from other coefficients in the same row.

Among the A facets, several emerged as important predictors, often in the opposite direction from the H facets. A-Patience (being calm and even-tempered vs. angry and quick-tempered) was associated with significantly less intrinsic religiosity ($\beta = -.19$, p = .049) and less fundamentalism ($\beta = -.18$, p = .046). A-Flexibility (being cooperative and accommodating) predicted higher political liberalism ($\beta = -.27$, p = .001) and lower right-wing authoritarianism ($\beta = -.17$, p = .052). Finally, A-Gentleness (being non-judgmental and accepting of others' faults) predicted significantly higher humanitarian–egalitarian values ($\beta = .25$, p = .006), marginally higher extrinsic religiosity ($\beta = .16$, p = .079), and marginally less rejection of religion ($\beta = -.25$, p = .102).

5. Discussion

Research on personality and religion has consistently identified agreeableness (A) as a major predictor of religious beliefs and practices (Saroglou, 2010). Recent work from the HEXACO tradition, however, has suggested that honesty–humility (H), not A, might be the basis of religiosity (Lee & Ashton, 2012). The present research explored the roles of H and A in religion by assessing a broad range of motives, beliefs, attitudes, and values associated with religion and with broader ideologies in which religion is often embedded.

Clear support was found for H over A. H significantly predicted almost all the religion outcomes. First, people high in H reported significantly higher religiosity, higher intrinsic religious orientations, less rejecting attitudes toward religion, and higher Biblical fundamentalism; high H was also associated with higher extrinsic orientations, albeit marginally so. Second, A significantly predicted none of the religion outcomes. And finally, the effects of H that differed significantly from zero also differed significantly from A's effects (see Table 1), so H's and A's effects differed from each other.

Facet-level analyses of H and A added some interesting information to the factor-level analyses. First, the H-Fairness facet emerged as the primary facet of H that predicted religion. The H-Fairness facet reflects morality and integrity, such as an unwillingness to exploit others for personal gain when there's no risk of reprisal (Lee & Ashton, 2004, 2012). Second, the A facets often predicted religion in the opposite direction. Interestingly, facets linked to stereotypically religious concepts, such as H-Modesty

and A-Forgiveness, played a minor role at most. Instead, facets associated with morality (H-Fairness) and interpersonal tolerance (A-Patience) showed the most consistent effects, albeit in different directions. This pattern suggests that the conflation of H and A in the Big Five tradition might have obscured some important contrasts between them, and it suggests a need for additional work on facet-level models of religion and the HEXACO (Table 2).

As with all studies of religious beliefs and practices, it is important to note the cultural background of the participants. The present sample was taken from a conservative-leaning Southern region of the United States, an area known for being relatively more religious even by the standards of the United States, which is much more religious than developed Western nations (Davie, 2013). The participants were also young adults-most were 18 or 19-and this is a critical and fluid period in the development of religious identity. Leaving the home of one's parents and attending college, for example, are known to be predictors of major change in religious beliefs, such as drifting away from the parents' religion or becoming deeply religious for the first time (Altemeyer & Hunsberger, 1997; Hunsberger & Altermeyer, 2003). Our sample differs from past samples (e.g., Aghababaei, 2012, 2014) and thus expands this emerging literature, but a clear direction for future research is to examine the roles of H and A in a wider range of samples, such as samples that vary in age, geographical region, and denominational affiliation. Informant reports, such as from peers and relationship partners, would also be valuable as a means of going beyond participants' own self-reported religious beliefs and motives.

In conclusion, the present study suggests the need to rethink the role of A in religion. At the factor level, H, not A, predicted religious constructs; at the facet level, many of A's effects were in the other direction. Together with other recent studies (e.g., Aghababaei, 2012, 2014), our findings suggest that a more differentiated view of personality and religion is called for. In particular, future work should further examine the H and A facets. The present findings suggest some important distinctions between the facets, but the relatively low facet reliability limits somewhat the conclusions we can draw. An expanded examination, perhaps using the 200-item HEXACO inventory along with additional measures relevant to the H and A facets, could provide a more incisive look at lower-order relationships with religious constructs.

More generally, the present work provides evidence for the broader HEXACO model of personality structure and its distinction

between H and A. This model emerged from a wide body of lexical research (e.g., Ashton, Lee, Marcus, & De Vries, 2007; Ashton et al., 2004, 2006; Szarota, Ashton, & Lee, 2007), and it has been supported in subsequent studies that illustrated the value of contrasting H and A in a wide range of contexts (e.g., Hilbig, Zettler, Leist, & Heydasch, 2013; Lee et al., 2013; Silvia, Kaufman, Reiter-Palmon, & Wigert, 2011; Tybur & de Vries, 2013). Given the centrality of religious beliefs and practices in human cultural history, religion represents a significant context in which to differentiate H and A and thus reinforces the utility of the HEXACO approach.

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