Psychology of Religion and Spirituality

Pure in Heart: Perceived Virtue States Uniquely Predict Prosocial Processes, Spirituality, and Well-Being

Thane M. Erickson, Gina M. S. Kuusisto, Adam P. McGuire, Jamie L. Tingey, Tara A. Crouch, Oxana L. Stebbins, and Jamie A. Lewis

Pure in Heart: Perceived Virtue States Uniquely Predict Prosocial Processes, Spirituality, and Well-Being

Thane M. Erickson, Gina M. S. Kuusisto, Adam P. McGuire, Jamie L. Tingey, Tara A. Crouch,
Oxana L. Stebbins, and Jamie A. Lewis
Department of Clinical Psychology, Seattle Pacific University

Theorists have posited that people experience behavior metaphorically in "social space" as above versus below others (agency), close versus distant (communion), and morally/spiritually pure or near the heavens versus degrading. Recent research suggests that perceived moral virtue accounts for unique variance in social perceptions, but studies have not examined individuals' state-like experiences of themselves as virtuous or pure independent of agentic or communal states; the types of behavior experienced as pure; and incremental prediction of prosocial tendencies, spirituality, and well-being. Participants completed free response tasks or interviews in Study 1 (174 students, 23 homeless men, and 16 sex-trafficked women), completed cross-sectional surveys (Study 2: $N = 533$), or recorded daily self-perceptions and outcomes (Study 3a: $N = 95$ students, 860 diary records; Study 3b: 89 anxious/depressed patients, 429 diary records). In Study 1, students and stigmatized community samples spontaneously associated states of purity and dirtiness with morally valenced social behavior and spiritual practices. In Study 2a/b, exploratory and confirmatory factor analyses showed that self-perceptions of virtue represented a unique factor not redundant with agency and communion. Last, perceived virtue explained unique variance in self-transcending prosocial tendencies, spirituality, and well-being in cross-sectional (Study 2c) and daily assessments (Studies 3a/b). These findings attest to perceived states of virtue of the self as a unique social cognitive process with potential relevance to personality, well-being, spirituality, and understanding stigmatized groups commonly perceived as physically and morally unclean.

Keywords: morality, virtue, spirituality, moral elevation, interpersonal

From trait adjectives to stereotypes, many social cognition models assume two dimensions—labeled as competence and warmth or sociability, dominance and affiliation, or most broadly, *agency* and *communion* (Cuddy et al., 2008; Gurtman, 2009; Wiggins, 1991). In spatial metaphors, people experience themselves as "above" versus "below" others and close versus distant (Haidt, 2003). Moreover, agency and communion impact relational and emotional well-being (Horowitz, 2004).

However, informed by cultural observations of spirituality and religion, Haidt (2003) theorized that humans appraise behavior on a third social dimension of *moral virtue* versus degradation, experienced metaphorically as *moral or spiritual purity* versus pollution. "Dirty" deeds imply selfish acts, but a pure heart or clean living imply moral, selfless, spiritual states. Secondarily, metaphors of skyward movement connote virtue, as evident in terms such as *upstanding*, *elevated*, *uplifting*, *higher self*, or God "up there." In contrast, nearness to the dirt implies vice in reference to that which is *degraded*, *underhanded*, or *beneath oneself*. Both metaphors overlap (e.g., low-down, rotten

scoundrel), perhaps because physical contaminants such as feces lie in the soil, not the pure space of sky. Labels include purity (Haidt, 2003), divinity (Shweder et al., 1997), morality (Goodwin et al., 2014), or virtue (Peterson & Seligman, 2004). Such phenomena are germane to religion and spirituality, given physical cleansing and metaphorically purifying practices. However, little is known about this dimension in people's state-like experiences of themselves, beyond agency and communion—the aim of this article.

Specificity of Moral Virtue Beyond Agency and Communion

Some theorists view communal and moral characteristics as synonymous (Cuddy et al., 2008; Wojciszke, 2005), but recent research portrays the moral dimension of social cognition as unique. For instance, perceptions of morality shaped impressions of others' traits more than competence or warmth/sociability (Brambilla et al., 2011; Goodwin et al., 2014), even in contexts emphasizing competence (Luttrell et al., 2022). Moreover, whereas morality was consistently rated positively, the desirable aspects competence and sociability depended on morality (Landy et al., 2016). But few studies have examined social cognition about morality of the *self*. In teens, self-perceptions of morality predicted relational outcomes beyond competence and sociability traits (Crocetti et al., 2018). Also, factor analysis modeled morality and warmth traits as related but distinct facets, separate from agency (Abele et al., 2016).

Thus, preliminary research attests to distinct social cognition about moral traits, but less is known about *state*-like experiences week-to-week or day-to-day. Haidt (2003) posited that humans

appraise not only *people* in terms of purity (e.g., saints vs. sex workers), but also *states* (e.g., becoming purer when meditating or less pure when enraged). People rise and fall on this dimension when they behave like gods or demons. However, state fluctuation in experiencing oneself as virtuous or pure remains unexplored. Moreover, studies have not included markers related to purity, despite research on moral emotions implying that people experience social acts metaphorically via purity versus dirtiness. For instance, emotional disgust and cleansing urges were linked to physical contaminants (Tybur et al., 2009) as well as interpersonal violations (Badour et al., 2013; Giner-Sorolla & Chapman, 2017). In contrast, witnessing virtuous acts like self-sacrifice elicits moral elevation, an emotion involving feeling uplifted, chest warmth, motivation to help others (Algoe & Haidt, 2009; Erickson et al., 2018; Schnall et al., 2010), and spiritual transcendence (Van Cappellen et al., 2013). This implies that social acts might be experienced as morally or spiritually purifying versus contaminating the self, reminiscent of religious notions such as Jesus' statement that motivations of the heart, beyond physical rituals, make one clean or unclean (*New Revised Standard Version Bible*, 1989, Matt. 15:17–20). Studies have examined neither state purity as a metaphorical marker of perceived virtue distinct from agency and communion, their range of elicitors, nor associated outcomes. Although extant research uses varying terminology to describe a third, moral dimension of social cognition, we focus in this article on *moral virtue states of the self as captured, in part, by purity metaphors*, but refer to *virtue* throughout as a shorthand for our construct.

Potential Unique Links of Perceived Virtue to Emotional, Social, and Spiritual Outcomes

Perceived virtue of one's own acts may predict particular outcomes, even controlling agency and communion. First, those higher on virtue states might endorse elevation-proneness and lower disgust-proneness. Second, altruistic behavior is elevating (Algoe & Haidt, 2009), implying that high-virtue acts involve not only affiliation or closeness but especially altruistic, unselfish tendencies such as generosity, valuing service, and compassionate goals. Given elevation's links to self-transcendence and spirituality (Van Cappellen et al., 2013), virtue may predict valuing spirituality, felt closeness to God, and lower self-focused extrinsic values (money, popularity, and appearance) and self-image goals. Beck (2011) posited maladaptive self-schemas of viewing the self as helpless or incompetent, unlovable, or morally worthless, implying lack of perceived agency, communion, or virtue. Thus, virtue might correlate uniquely with well-being markers like positive affect, happiness, self-esteem, and lower negative affect, both in chronic, between-person differences *and* within-person variability (Jayawickreme et al., 2014). Lastly, perceptions of states of feeling pure versus dirty, and whether one's own versus others' behaviors elicit them, may bear relevance to "unclean" stigmatized groups such as the homeless or sex workers (Cuddy et al., 2008).

The Present Studies

This research centered on several questions. First, we examined *elicitors of purity (and dirtiness) states* as markers of perceived virtue in students (Study 1a) and individuals stigmatized as physically or morally unclean: homeless men (Study 1b) and sex-trafficked women

(Study 1c). We expected elicitors from not only physical sources like hygiene but also sociomoral sources like sex and kindness. We expected multiple "directions" (self toward self, self toward others, others toward self, others toward others), but hypothesized that elicitors would be disproportionally interpersonal, fitting the theory that people rise and fall in purity based on social acts (Haidt, 2003). In particular, we expected selfish acts such as cheating, lying, or aggression to induce dirtiness, whereas selfless prosocial acts and spiritual practices would induce purity.

Our second aim centered on *testing whether virtue items factored separately from agency and communion* rather than loading together with communal states. We expected a three-factor solution in exploratory (Study 2a) and confirmatory analyses (Study 2b). Although primarily interested in states, we also tested factorial invariance across state and trait ratings.

Our third aim emphasized *convergent and incremental validity of perceived virtue* beyond agency and communion. Cross-sectionally (Study 2c), we expected virtue to correlate uniquely with "moral" Big Five traits of Agreeableness and Conscientiousness rather than other traits; the morality-themed Honesty–Humility (HH) factor from the HEXACO framework of Honesty-Humility, Emotionality, eXtraversion, Agreebleness, Conscientiousness, and Openness to Experience (Ashton & Lee, 2009); and self-transcending characteristics like elevation-proneness, interpersonal generosity, and valuing affiliation, giving to one's community, and spirituality. We expected minimal correlation with social desirability given the focus on states rather than identity, and negative or minimal associations with extrinsic values of money, population, and appearance. Assuming low-virtue behaviors elicit disgust, we expected negative associations with trait disgust. Also, we hypothesized unique correlations with higher happiness and self-esteem. Agency and communion served as covariates.

Lastly (Study 3), we expected that *virtue would uniquely predict emotional, social, and spiritual outcomes* in students over 10 days (higher daily positive affect, compassionate goals, closeness to God, and lower negative affect and self-image goals) and a clinical sample over 7 days (higher positive affect, elevation, moral character descriptors; lower negative affect). We expected associations at both *between-person* mean levels and *within-person* levels.

Studies 1a/b/c: Sources of Purity in Student and Stigmatized Community Samples

To examine elicitors of states of perceived purity or dirtiness of the self, students and community samples from the Pacific Northwest region of the United States responded to survey or interview prompts.

Method

Participants

College Students (Study 1a). College students ($N = 174$) in the Pacific Northwest participated for credit ($M_{age} = 19.26$, $SD = 2.24$; 123 women, 40 men, 9 declined). They self-identified as White (72%), Asian American (7%), Latinx (5%), Black (2%), Pacific Islander (2%), Middle Eastern (<1%), multiracial (3%), or nondisclosing (8%).

Homeless Men (Study 1b). Adult men at a homeless shelter primarily serving men were invited into a self-perception study in

exchange for socks, a bus pass, and a soda (suggested by staff). Consenting participants ($N = 23$) were 26–65 years old ($M = 46.9$) and self-identified as African American (43.5%), White (26.1%), American Indian (8.7%), Latino (4.3%), West African (4.3%), Pacific Islander (4.3%), other (4.3%), and nondisclosing (4.3%).

Sex-Trafficked Women (Study 1c). Flyers and staff at drop-in centers for trafficked women invited participants, offering a $5 gift card and nail polish. Consenting participants ($N = 16$) were 18–50 years old ($M = 28.38$), self-identifying as multiracial (37.5%), White (18.8%), Black (12.5%), American Indian (12.5%), Asian/Pacific Islander (12.5%), and Latina (6.3%).

Procedure

Students received an email link to open-ended prompts: *Most people have experienced things in daily life that make them feel pure or clean versus impure, unclean, or dirty. Please describe three behaviors that make you feel "clean" or "pure." Next, please describe three behaviors that make you feel dirty or impure.* Homeless men received these prompts during interviews by two researchers, trafficked women by one researcher interviewer.

Four graduate students blind to hypotheses (Study 1a) or a student and psychologist (Studies 1b/1c) transcribed responses into thought units and coded them. Raters coded *direction of action* as *self toward self* (e.g., "forgot to wash my hands"), *self toward other* ("lying to my mom"), *other toward self* ("when people compliment you"), and *other toward others* ("seeing someone help another person"). The last three codes were considered interpersonal. Acts with multiple directions were *multidirectional*. Raters also coded *content of action*. Given the theory that disgust pertains to "microbes, mating, and morality" (Tybur et al., 2009), codes included physical contaminants, sexual acts, and "deadly sins" or acts commonly deemed selfish (aggression, arrogance, envy, greed, laziness, gluttony, and substance abuse). *Ad hoc* codes included specific (dishonesty, profanity) or nonspecific acts (generic selfishness ["being selfish"],

health behavior ["not exercising"], and failing self-standards ["disappointed myself"] and others ["letting parents down"]).

Conceptualizing "pure" acts as the opposite of "dirty" ones, codes featured hygiene behaviors, spiritual practices, and altruistic and affiliative behaviors, plus agency (obtaining status, having autonomy) for specificity. *Ad hoc* categories were health behaviors ("getting sleep"), self-regulation/persistence ("finishing work"), appreciating beauty ("watching a sunset"), introspective activity ("quiet reflection"), gratitude ("being thankful"), honesty ("telling truth"), and living up to standards of self and others. Raters independently coded a portion of acts ($n = 193, 102, 90$), suggesting reliability for content ($\kappa = .89$) and direction of action ($\kappa = .80$).

Results and Discussion

For these qualitative data, we examined perceptions of elicitors of purity and dirtiness separately in subsamples of students, men experiencing homelessness, and women involved in sex trafficking. We first report percentages of codes indicating direction of action, then chi-square analyses testing whether acts were disproportionately interpersonal, followed by brief inspection of codes related to content of elicitors. All analyses were conducted in SPSS except Study 2b.

Students' *purity* elicitors were mostly *self toward others* (51.7%) and *self toward self* (24.4%), but included *others toward others* (6.4%), *others toward self* (2.7%), and *multidirectional* (14.8%; see Figure 1). Homeless men reported purity from *others toward self* (34.6%), *self toward others* (30.9%), and *self toward self* (25.9%), with few *others toward others* (2.5%) or *multidirectional* (6.2%). Trafficked women's *pure* behaviors included *self toward others* (35.3%), *self toward self* (25.9%), *others toward self* (24.7%), and *others toward others* (14.1%). As expected, one-sample chi-square tests suggested pure acts were disproportionately interpersonal for students (346 of 479 acts), $\chi^2(1, N = 479) = 94.72, p < .001, \phi = .44$, homeless men (56/78 acts), $\chi^2(1, N = 78) = 14.82, p < .001, \phi = .44$,

Figure 1
Frequency of Coded Activities That Elicit States of Purity

(a) Students

(b) Homeless men

(c) Sex-trafficked women

and trafficked women (63/85 acts), $\chi^2(1, N = 95) = 19.78$, $p < .001$, $\phi = .48$. However, acts of the self predominated in all samples. Students and homeless men linked purity with hygiene, but all groups emphasized prosocial acts related to affiliation and altruism, as well as spiritual practices, as expected. Few linked purity with agency (autonomy/status), suggesting specificity. See Table 1, for selected raw responses.

Dirty behaviors (see Figure 2) for students included *self toward others* (42.3%), *self toward self* (19.4%), *others toward others* (11.4%), *others toward self* (1.2%), and *multidirectional* (25.8%). For homeless men, dirty acts emphasized *others toward self* (43.7%), *self toward others* (31.0%), and *self toward self* (19.7%), but included *others toward others* (4.2%) and *multidirectional* action (1.4%). For trafficked women: *others toward self* (31.6%), *self toward self* (24.2%), *others toward others* (26.3%), and *self toward others* (17.9%). As hypothesized, dirty acts were largely interpersonal for students (352/469 acts), $\chi^2(1, N = 469) = 117.75$, $p < .001$, $\phi = .50$, homeless men (56/70), $\chi^2(1, N = 70) = 25.20$, $p < .001$, $\phi = .60$, and trafficked women (72/95), $\chi^2(1, N = 95) = 25.27$, $p < .001$, $\phi = .52$. Dirty acts highlighted physical contaminants for students and homeless men, sex for students and trafficked women, and selfish acts like aggression, arrogance, and dishonesty for all groups, befitting disgust domains (Tybur et al., 2009).

In summary, participants associated purity and dirtiness with social acts, especially those reflecting self-transcending versus selfish motives. Such acts appear to subjectively cleanse or contaminate, with a broader range than previous lists of disgust elicitors (e.g., Rozin et al., 1999). Moreover, these findings establish the relevance of such states to stigmatized persons for whom experiences of physical and moral dirtiness versus purity may be particularly salient.

Studies 2a/b: Exploratory and Confirmatory Factor Analyses

Next, Study 2 tested the distinctness of virtue from agentic and communal self-ratings in college students. Participants students rated themselves on adjectival descriptors subjected to exploratory (Study 2a) or confirmatory (Study 2b) factor analyses, and all participants also completed other measures permitting investigation of construct validity (Study 2c).
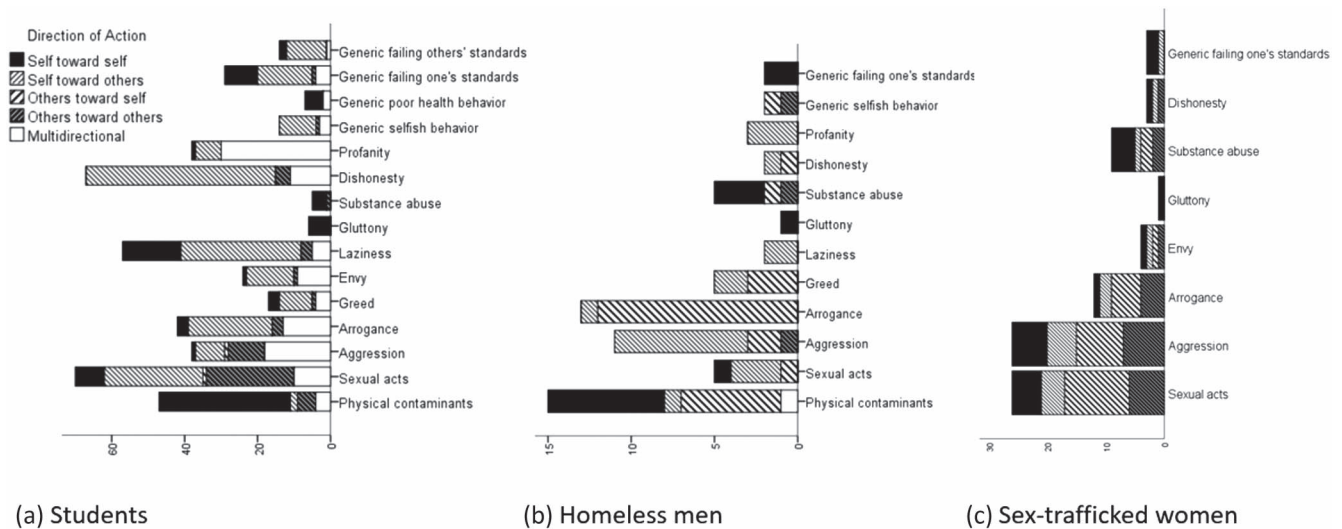
Method

Participants

General psychology students ($N = 533$) participated for credit, with subsamples for exploratory factor analysis (EFA; Study 2a: $N = 290$; 227 women, 63 men; $M_{age} = 19.57$, $SD = 2.68$) and confirmatory factor analysis (CFA: Study 2b: $N = 243$; 183 women, 58 men, 2 nondisclosing; $M_{age} = 19.75$, $SD = 2.29$). Participants identified as White (68%/73%), Asian (12%/9%), Latinx (8%/6%), multiracial (5%/5%), Black (4%/3%), Pacific Islander (1%/1%), Middle Eastern (1%/1%), American Indian (0%/1%), or declined (1%/1%). The few missing data (0.23%; 2.5%) were handled via multiple imputation.

Table 1
Sample Elicitors of States of Purity or Dirtiness

Sample	What makes you feel clean or pure?	What makes you feel dirty or impure?
Students	"Thinking of others before myself"	"Watching pornography"
	"Smile to strangers I meet in the store or to the bus drivers"	"Seeing someone lie outright to another person"
	"Choosing what is best for me rather than my reputation"	"When my room is a mess"
	"A person doing the right thing, i.e., giving something they found to its rightful owner even though … nobody would have known"	"Getting drunk every weekend kinda makes me feel impure"
	"Washing my hair"	"Cheating on a test"
	"Going to church and really paying attention"	"Objectifying women"
		"Gossiping about friends or co-workers"
Men experiencing homelessness	"When I do something nice like giving a gift or talking to people even when they're annoying, I feel pure"	"Eating or sitting by someone dirtier than me, then I feel dirty"
	"Peoples' positive responses to me make me feel clean or pure, like I can retain my purity I established when I interacted with them"	"People steal from me and that makes me feel unclean"
	"On days when I go to church and I know that the Lord's forgiven me, I feel better"	"I feel dirty if I have an urge to hurt or hit somebody"
	"When I haven't been [snapping at people … thinking I'm better than others when I'm really not], I feel clean"	"People that talk to me like I'm a kid or I don't really matter, I'm just street trash, that makes me feel dirty and angry"
		"When I think about the crime I committed to go to prison … a sexual offense"
Women involved in sex-trafficking	"Taking a shower"	"When I have the idea that a man is looking at me in a lustful way I cringe"
	"Being a good mom"	"Seeing men look at me or stare or turn"
	"Being an inspiration to somebody else"	"Someone offering to get high with me"
	"Helping people run a shelter at night as a program aid"	"Touching a computer [to receive solicitations]"
	"Yoga"	"Hatred and resentment"
	"Knowing Jesus better"	"Drugs made me feel that way"
	"Good church people praying for you"	

Figure 2
Frequency of Coded Activities That Elicit States of Dirtiness

(a) Students   (b) Homeless men   (c) Sex-trafficked women

Procedure

Participants completed online Qualtrics surveys with rationally generated, representative adjectives including agentic (*dominant, assertive, powerful, strong, forceful, and confident*), communal (*social, sociable, outgoing, extraverted, close to others, and connected to others*), and virtue states (*pure, clean, moral, virtuous, selfless, upstanding, and spiritual*). EFA sample participants were told: "How we experience ourselves can change from day-to-day and week-to-week. Over the past week, on average, how much did you feel … ?," and rated adjectives from 1 (*not at all*) to 5 (*extremely*). CFA sample participants received past-week "state" (*n* = 117) or "trait" instructions (*n* = 126; "your sense of yourself in general") to examine factorial invariance of states versus traits. They also completed other measures described in Study 2c.

Results and Discussion

Exploratory Factor Analysis (Study 2a)

An EFA (principal axis factoring) was conducted with direct oblimin rotation (assuming correlated factors given positively worded items). Scree plots, eigenvalues above 1.0 for three factors, and parallel analysis suggested expected Communion, Agency, and Virtue factors, explaining 37.58%, 9.40%, and 9.05% of the variance. All items loaded on the expected factor for Communion (loadings .66–.95) and Virtue (.40–.77) with no cross-loadings over .20. Agency items loaded on the expected factor (.46–.83), except for "confident," which had low loadings across factors and was therefore omitted in CFA. Communion correlated with Agency (*r* = .44) and Virtue (*r* = .55), and Virtue with Agency (*r* = .42; *p* < .001). Results fit the theory linking purity metaphors to virtue self-ratings and showed nonredundancy of perceived virtue with communion or agency.

Confirmatory Factor Analysis (Study 2b)

A CFA was conducted in Analysis of Moment Structures (AMOS) 28.0 to cross-validate the EFA. The specified model included latent Agency, Communion, and Virtue factors, each loading on a higher order *positive social cognition* factor (one loading per factor set to one to assign scaling). This model was compared to conservative one- and two-factor models. Because "close to others" and "connected to others" items were distinct from single adjectives and likely to share method variance, their errors were allowed to covary. Good fit was considered as normed chi-square (NC) < 2.0, comparative fit index (CFI) > .95 (>.90 as acceptable), and root-mean-square error of approximation (RMSEA) < .06 (95% confidence intervals [CIs] < .10), ignoring chi-square *p* values given oversensitivity to sample size.

The basic model (M1) had acceptable fit, $\chi^2(131) = 233.75$, $p < .001$, NC = 1.79, CFI = .95, RMSEA = .056, CI [.044, .068]; all items loaded significantly on expected factors, and factors on the higher order factor (*p* < .005; see Figure 3, for loadings). Errors for "close to others" and "connected to others" correlated (*p* < .001). "Clean" had the lowest loading on the Virtue factor but was retained for completeness. Given theories collapsing morality into communion (Cuddy et al., 2008), model M2 tested Virtue and Communion items on a single factor covarying with Agency. M2 fit poorly, $\chi^2(134) = 490.83$, $p < .001$, NC = 3.66, CFI = .80, RMSEA = .105, CI [.095, .203], relative to M1 ($\Delta\chi^2 = 257.08$, $\Delta df = 3$, $\Delta p < .001$). Virtue items were thus not reducible to Communion. Also, modeling all items on one factor (M3) fit poorly, $\chi^2(135) = 672.24$, $p < .001$, NC = 4.98, CFI = .71, RMSEA = .128, CI [.119, .138], versus M1 ($\Delta\chi^2 = 438.49$, $\Delta df = 4$, $\Delta p < .001$) confirming unique Virtue, Agency, and Communion items.

We also tested measurement invariance across "past week" and trait formats to ensure similar self-perception measurement across methods. The baseline multigroup model for state and traits (M4) had acceptable fit $\chi^2(262) = 400.21$, $p < .001$, NC = 1.53, CFI = .92, RMSEA = .047, CI [.032, .056]. Constraining factor loadings to equivalence (M5) did not lead to significant fit erosion, $\chi^2(279) = 426.14$, $p < .001$, NC = 1.53, CFI = .92, RMSEA = .047, CI [.038, .055], ($\Delta\chi^2 = 25.94$, $\Delta df = 17$, $\Delta p > .05$). Thus, in self-ratings, feeling pure loaded together with descriptors of virtue, and the virtue construct was distinct from agency and communion. Both findings

Figure 3
Confirmatory Factor Model for Self-Ratings (Standardized Loadings)
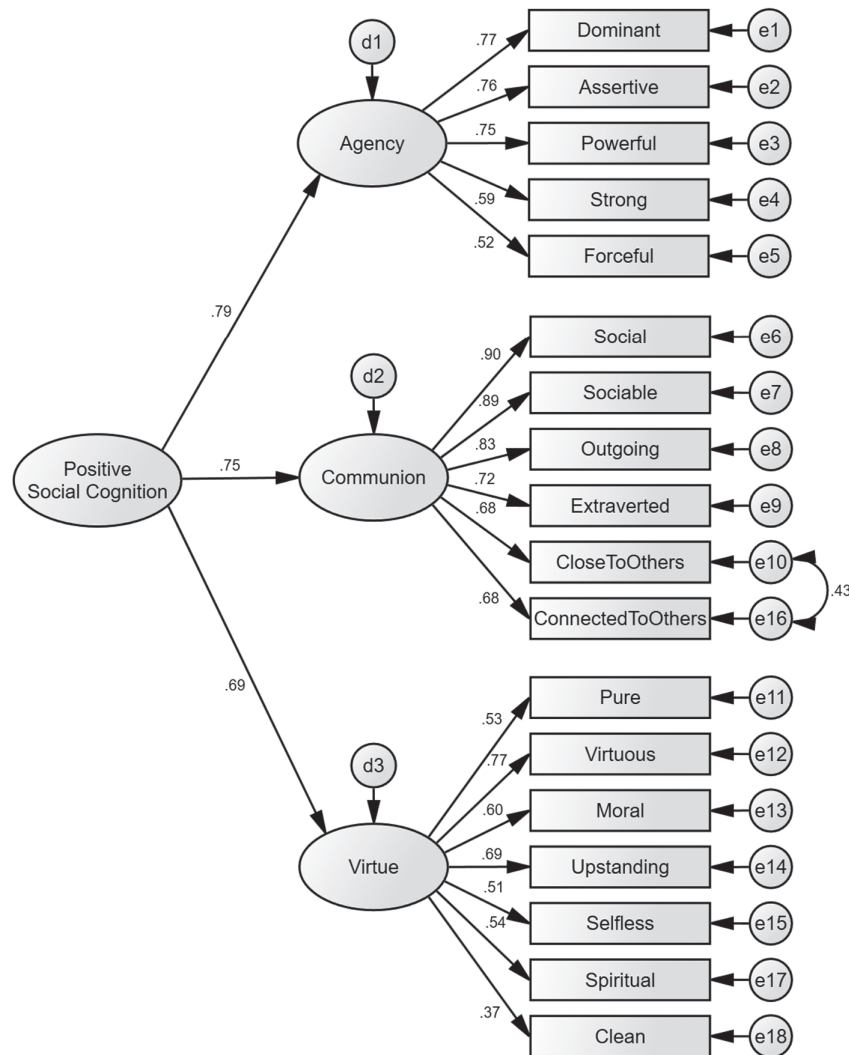
support the theorized third, moral–spiritual dimension of social cognition (Haidt, 2003), and that feeling clean is a distinct mental state (Schnall, 2011). Past research linked physical and sociomoral disgust, whereas our findings link perceived purity with a sense of acting virtuously.

Study 2c: Construct Validity

Given factorial validity, Study 2c next examined reliability and validity for virtue items in the same samples.

Method

Participants and Procedure

Participants from Studies 2a/b completed additional surveys online, averaged into virtue (α = .80), agency (α = .78), and communion (α = .90) scales; we note that all α estimates reported in this article reflect responses in our data. Measures rotated, so

sample size varied by measure (*n*s in Table 2). Of the participants who reported virtue states at baselines in Studies 2a and 2b, a subset also provided "past week" ratings 1 month later to examine retest reliability (*n* = 166). Given our focus on virtue states of the self and the theory that people rise and fall on this dimension based on lived experiences (Haidt, 2003), we only examined retest reliability for state items.

Measures

Aspiration Index (Grouzet et al., 2005). Participants rated importance from 1 (*not at all*) to 9 (*extremely*) on scales (3 items each) for intrinsic values of *affiliation* (e.g., "I will feel that there are people who really love me") and serving *community* ("I will assist people who need it, asking nothing in return"), plus *spirituality* ("My life and actions will be in agreement with my religious/ spiritual beliefs"; "I will find religious and/or spiritual beliefs that are growth-producing"; "I will find satisfying religious

Table 2

Zero-Order and Partial Correlations of Agency, Communion, and Virtue With Personality Traits

Scale	Agency r	Communion r	Virtue r	Agency $r_{partial}$	Communion $r_{partial}$	Virtue $r_{partial}$
Past-week state instructions						
MC Social Desirability	−.09	.13*	.12	−.18**	.15*	.11
EBS Elevation-proneness	.01	.17***	.32***	−.06	.04	.29***
Interpersonal Generosity Scale	−.07	.30**	.32**	−.19	.26*	.27*
Aspirations-Community	.04	.17	.28**	−.06	−.09	.24*
Aspirations-Affiliation	−.13	.24*	.27**	−.26**	.21*	.26**
Aspirations-Spirituality	−.08	.17	.22*	−.18	.14	.22*
Aspirations-Popularity	.19	.23*	−.06	.18	.24*	−.19
Aspirations-Image	.22*	.04	−.05	.24*	.03	−.13
Aspirations-Money	.11	−.12	−.05	.16	−.13	−.05
BFI Extraversion	.37***	.59***	.23*	.12	.50***	−.07
BFI Agreeableness	.00	.32**	.38***	−.30**	.29**	.36***
BFI Conscientiousness	.17	.04	.35***	.08	−.15	.34***
BFI Neuroticism	−.16	−.37***	−.26**	.18	−.30**	−.14
BFI Openness	.19*	.19*	.33***	.04	.03	.26**
Rosenberg Self-Esteem	.50***	.42***	.45***	.28*	.10	.23
Trait instructions						
HEXACO Honesty–Humility	−.16*	.04	.19*	−.27***	.03	.26***
HEXACO Emotionality	−.23**	.05	−.01	−.30***	.19*	.01
HEXACO Extraversion	.51***	.68***	.37***	.24**	.54***	−.07
HEXACO Agreeableness	−.23**	.13	.06	−.36***	.25**	.07
HEXACO Conscientiousness	.03	.05	.15	−.03	−.03	.15
HEXACO Openness	.03	−.01	.15	.01	−.11	.18*
DPSS Disgust Propensity	−.14	−.06	−.30*	−.09	.03	−.29
DPSS Disgust Sensitivity	−.19	.02	−.10	−.19	.08	−.09
Subjective Happiness Scale	.39***	.61***	.49***	−.04	.45***	.26*

Note. $r_{partial}$ = partial correlation; MC = Marlowe–Crowne; EBS = engagement with moral beauty; BFI = Big Five Inventory; HEXACO = Honesty-Humility, Emotionality, eXtraversion, Agreebleness, Conscientiousness, and Openness to Experience; DPSS = Disgust Propensity and Sensitivity Scale; IGS = Interpersonal Generosity Scale. Because measures rotated during data collection, sample size for correlations varied by measure: MC (n = 160), EBS (262), IGS (75), aspirations (74), BFI (115), HEXACO (151), DPSS (49), Subjective Happiness Scale (73), Rosenberg Self Esteem (73).
* $p < .05$.   ** $p < .01$.   *** $p < .001$.

and/or spiritual activities"). The three subscales for extrinsic values included aspirations toward *self-image*, *money*, and *popularity*. Ipsatizing (removing person-means) measured relative value for each (α = .75–.93).

Big Five Mini-Markers (Saucier, 1994). Forty items measured Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness on a 1 (*extremely inaccurate*) to 9 (*extremely accurate*) scale (α = .73–.84).

Disgust Propensity and Sensitivity Scale–Revised (Olatunji et al., 2007). Items measured proneness to disgust ("I become disgusted more easily than other people") and aversion to disgust ("I think feeling disgusted is bad for me") on a 1 (*never*) to 5 (*always*) scale (eight each). In this study, α = .74 and .76.

Engagement With Beauty Scale-Moral Beauty (Diessner et al., 2008). This six-item subscale assessed noticing moral beauty (i.e., virtue) and experiencing moral elevation, on a 1 (*very unlike me*) to 7 (*very much like me*) scale. In this study, α = .83.

HEXACO-60 (Ashton & Lee, 2009). This 60-item scale measured HH, (negative) Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience, on a 1 (*strongly disagree*) to 5 (*strongly agree*) scale. Here, α = .72–.83.

Interpersonal Generosity Scale (Smith & Hill, 2009). This 10-item scale measured promoting others' welfare interpersonally (e.g., "It makes me very happy to give to other people in ways that meet their needs"), on a 1 (*strongly disagree*) to 6 (*strongly agree*) scale (α = .91).

Marlowe–Crowne Social Desirability Scale (Reynolds, 1982). This 13-item scale measured socially desirable responding in a true/false format (e.g., denying "I sometimes try to get even, rather than forgive and forget"; α = .71).

Rosenberg Self-Esteem Scale (Rosenberg, 1965). The Rosenberg Self-Esteem Scale (RSE) measured self-esteem on a 1 (*strongly agree*) to 4 (*strongly disagree*) scale (5 reversed items). Here, α = .84.

Subjective Happiness Scale (Lyubomirsky & Lepper, 1999). Four items assessed self-reported happiness ("In general, I consider myself happy"), on a 1 (*less happy*) to 7 (*more happy*) scale. In this study, α = .85.

Results and Discussion

Agency (r = .60), communion (r = .64), and virtue (r = .60, ps < .001) retest reliability suggested moderate stability without precluding temporal variability. Convergent validity analyses (see Table 2) tested correlates and partial correlations (agency and communion included, but not discussed). Associations for past-week state virtue largely fit expectations. As expected, virtue correlated uniquely with (Big Five Inventory) Agreeableness and Conscientiousness (unexpectedly with Openness), spiritual aspirations, and elevation-proneness. Befitting theorized links to altruism, virtue uniquely correlated with interpersonal generosity and valuing serving one's community. Virtue correlated uniquely with the intrinsic value of fulfilling

relationships (affiliation values), but unexpectedly not with extrinsic values of popularity, self-image, or money. It trended toward unique association with self-esteem. Nonsignificant associations with socially desirable responding, Extraversion, and Neuroticism suggested discriminant validity.

Trait-format virtue items correlated uniquely with HEXACO HH but not Conscientiousness or Agreeableness, consistent with how morally laden HEXACO items load on the HH factor (Ashton & Lee, 2009). Virtue again unexpectedly correlated with Openness. Virtue correlated positively with happiness as expected, but the negative correlation with disgust propensity dropped below significance in the partial correlation. Virtue demonstrated no unique associations with Extraversion or negative Emotionality, showing discriminant validity.

Thus, multiple item-response formats demonstrated preliminary validity in cross-sectional analyses. Individuals who experienced themselves as virtuous reported prosocial and spiritual tendencies and values, even controlling for agentic and communal self-perceptions.

Studies 3a/b: Perceived Virtue States in Daily Life

Lastly, studies examined virtue states in daily diary records in both students and treatment-seeking patients, differentiating within- and between-person variability, as well as unique prediction of emotional, relational, and spiritual outcomes beyond agentic and communal states. In patients, virtue states and outcomes were examined in context of participants' "best event of the day," premised on the possibility that virtue states might be relevant to individuals' daily high points, even in those with clinically significant distress.

Method

Participants

College students (Study 3a; $N = 95$) participated for credit in a 10-day online diary study (72 women; $M_{age} = 19.23$, $SD = 2.00$). Treatment-seeking patients diagnosed with anxiety and/or depressive disorders in group therapy (Study 3b; $N = 89$) completed online diary records about best/worst events of the day for 7 days (74 women, 11 men, 1 trans woman, 1 nonbinary). They identified as White (73.7%; 65.6%), Asian American (12.6%; 13.8%), Latinx (6.3%; 6.9%), African American (2.1%; 2.3%), Pacific Islander (1.0%; 0%), multiracial (0%; 6.9%), or did not respond (4.2%; 3.4%). Participants completed 860 ($M = 8.97$, $SD = 2.05$) and 429 records ($M = 5.87$, $SD = 1.50$), respectively.

Measures (Study 3a: Student Sample)

Social Cognition. A subset of items from Study 2 measured agency (*dominant, assertive, powerful, and strong*), communion (*social, sociable, outgoing, and close to others*), and virtue (*pure, upstanding, selfless, and clean*) in daily life, focused on "today." Reliability from multilevel variance components analysis was estimated at .94, .90, and .95, respectively.

Outcomes. Five-point Likert scales were used for all items. The Positive and Negative Affect Schedule (PANAS)–short form (Mackinnon et al., 1999) assessed daily positive and negative affect (PA/NA; 5 items each). A brief elevation index measured feeling *uplifted/moved/inspired by others*; scores correlated $r = .76$ ($p < .001$)

with a longer measure of daily elevation (Erickson & Abelson, 2012). Participants rated wanting or trying, in social interactions, to pursue interpersonal goals (Crocker & Canevello, 2008): six self-image goal items featured striving to promote or defend desired self-images; seven compassionate goal items featured striving to help and avoid harming others. Sample items included "get others to recognize or acknowledge your positive qualities" and "be supportive of others," respectively. Following Crocker and Canevello (2008), we partialed out shared variance to control nonspecific goal-striving. Lastly, three items adapted from Emmons and Kneezel (2005) assessed perceived closeness to God (extent of being *close to God, striving for what God wants in my life,* and *experiencing God through what I was striving for*). Reliabilities ranged .77–.91.

Measures (Study 3b: Clinical Sample)

Social Cognition. Agency (*dominant, assertive, and in control*), communion (*sociable, outgoing, and connected*), and virtue (*pure, moral, and spiritual*) during the best event of the day were examined. Reliabilities = .83, .77, .93, respectively.

Outcomes. Participants reported daily elevation as the mean of *morally uplifted, moved by others* on a 0 (*not at all*) to 4 (*extremely*) scale. PANAS items assessed PA, but were anchored to the "best event of the day." A composite measure of morally valenced descriptors assessed perceptions of one's character virtues in the best event (*courageous, self-controlled, wise or prudent, fair, compassion, grateful, humble, and forgiving*). Reliabilities ranged .81–.89.

Procedure

Participants reported online about their daily levels for 10 days (Study 3a) or best daily event for 7 days (Study 3b). Assistants contacted participants to enhance compliance.

Results and Discussion

Multilevel modeling estimated between- and within-person effects. Daily predictors and outcomes (Level 1) were nested in persons (Level 2). SPSS MIXED computed restricted maximum likelihood estimates, used autoregressive covariance structure, and modeled random intercepts and slopes (varying across persons). Tests of unconditional models, significant variance of intercepts and slopes, and autocorrelation coefficients supported these assumptions. Intraclass correlations for agency (.57; .38), communion (.48; .29), and virtue (.63; .63) suggested both between- and within-person variability in both samples. To distinguish between/within effects, models included aggregate person-means and person-centered predictors (Kreft & de Leeuw, 1998). Models tested virtue predicting daily outcome variables, then repeated the analysis controlling agency and communion (see Table 3). Given few gender effects, models omitted gender.

In the *student sample*, higher mean virtue over 10 days as well as within-person deviation above mean levels uniquely predicted higher elevation, compassionate goals, closeness to God, and PA as expected, but unexpectedly not lower self-image goals or NA (though within-person virtue predicted lower NA in zero-order results). In the *clinical sample,* both mean and person-centered virtue uniquely predicted higher PA, elevation, and moral character descriptors during best events, as hypothesized.

Table 3

Parameter Estimates From Multilevel Models Testing Effects of Virtue on Daily Outcomes

	Zero-order effects		Unique effects							
	Virtue		Agency		Communion		Virtue	
Predictor	b (SE)	p	b (SE)	p	b (SE)	p	b (SE)	p
Student sample								
Aggregate effects								
Compassionate goals	.45 (.09)	**<.001**	−.65 (.11)	**<.001**	.73 (.09)	**<.001**	.52 (.11)	**.001**
Self-image goals	.34 (.10)	**.001**	.69 (.13)	**<.001**	−.41 (.11)	**<.001**	.04 (.13)	.759
Daily moral elevation	.89 (.05)	**<.001**	.06 (.06)	.272	.30 (.05)	**<.001**	.66 (.06)	**<.001**
Positive affect	.71 (.38)	**<.001**	−.05 (.07)	.461	.52 (.06)	**<.001**	.42 (.08)	**<.001**
Negative affect	.04 (.07)	.540	.06 (.10)	.543	−.17 (.08)	**.034**	−.07 (.08)	.172
Closeness to God	.58 (.09)	**<.001**	−.21 (.12)	.077	.29 (.10)	**.004**	.56 (.12)	**<.001**
Person-centered effects								
Compassionate goals	.65 (.08)	**<.001**	−.16 (.08)	**.044**	.32 (.07)	**<.001**	.48 (.08)	**<.001**
Self-image goals	−.13 (.09)	.160	.28 (.09)	**.002**	−.17 (.08)	**.030**	−.15 (.09)	.106
Daily moral elevation	.78 (.04)	**<.001**	.15 (.04)	**.001**	.31 (.04)	**<.001**	.50 (.04)	**<.001**
Positive affect	.55 (.06)	**<.001**	.14 (.06)	**.016**	.42 (.05)	**<.001**	.19 (.06)	**.002**
Negative affect	−.24 (.06)	**<.001**	−.05 (.08)	.484	−.20 (.06)	**.001**	−.06 (.08)	.389
Closeness to God	.47 (.08)	**<.001**	.05 (.08)	.537	.22 (.08)	**.002**	.28 (.08)	**.001**
Clinical sample								
Aggregate effects								
Moral elevation	.86 (.07)	**<.001**	−.13 (.11)	.257	.52 (.09)	**<.001**	.61 (.09)	**<.001**
Character virtues	.76 (.04)	**<.001**	.32 (.06)	**<.001**	.17 (.05)	**.002**	.49 (.05)	**.002**
Positive affect	.61 (.06)	**<.001**	.37 (.08)	**<.001**	.43 (.06)	**<.001**	.15 (.06)	**.020**
Person-centered effects								
Moral elevation	.53 (.04)	**<.001**	−.17 (.06)	**.003**	.39 (.05)	**<.001**	.57 (.08)	**<.001**
Character virtues	.75 (.08)	**<.001**	.26 (.04)	**<.001**	.17 (.03)	**<.001**	.34 (.04)	**<.001**
Positive affect	.49 (.06)	**<.001**	.49 (.04)	**<.001**	.21 (.08)	**<.001**	.21 (.05)	**<.001**

Note. Unstandardized estimates. Aggregate effects represent the mean over 10 days (between-person variability), whereas person-centered effects reflect within-person variability. Clinical sample assessments pertain to participants' "best" daily event. For model convergence in the clinical sample, slopes were not random for agency → elevation, virtue → character, and agency/virtue → positive affect. *SE* = standard error. Bold font indicates statistical significance.

Overall, participants varied day-to-day in state experiences of themselves as virtuous, and this variability predicted outcomes paralleling the correlations in Study 2c (prosocial behavior, spirituality, and positive emotions). Furthermore, aggregate effects showed that some individuals endorsed chronically higher virtue states predicting these outcomes, yielding consistent findings at between- and within-person levels.

General Discussion

Haidt (2003) theorized that individuals interpret behavior in terms of not only power and closeness, but also "purity versus pollution" related to hygiene, spirituality, and virtue. Morality appraisals strongly predict impressions of others (Goodwin et al., 2014), but the present studies investigated purity or virtue states of the *self*, perceived elicitors, factorial distinctness from agency and communion, and unique links to other variables.

As hypothesized, participants disproportionally associated purity (and dirtiness) states with social acts, but also emphasized physical and spiritual practices (Study 1). Homeless men and students to some extent associated purity/dirtiness with hygiene, suggesting salience of physical contamination to those with limited bathing. More consistently, students, homeless men, and trafficked women linked purity states to spiritual practices and especially social behavior, bolstering the theory that purity taps both virtue and contact with the sacred (Haidt, 2003). In particular, participants endorsed prosocial behavior as cleansing, consistent with the theory that disgust protects social boundaries, but feeling clean may facilitate social grooming and relatedness (Schnall, 2011). Altruistic behavior was particularly "pure," suggesting self-transcendence motives rather than mere social proximity as virtuous. Conversely, dirtiness findings fit the theory that microbes, mating, and immorality elicit disgust (Tybur et al., 2009). Across groups, aggression, arrogance, and to a lesser extent, greediness, elicited dirty states, suggesting a particular role of social acts that imply selfish motives. Students emphasized self-centered sex, lying, laziness, and profanity; homeless men noted substance use or not staying "clean and sober" whereas trafficked women highlighted sexual transactions. Students most often reported acts of self toward others, whereas other groups also emphasized acts of others toward the self; lower socioeconomic and stigmatized status may shape perceptions of self versus others as the cause of purity/dirtiness of the self. Overall, interpersonal sources were common.

Study 1 findings addressed our first aim of examining acts people viewed as cleansing versus contaminating, but left open *whether virtue self-perceptions reflect unique variance*. Virtue items might load with communion as "pure love" or even agentic forms of self-righteousness. In two subsamples (Study 2) addressing our second aim, adjectival items fit well as a virtue dimension beyond agency and communion, contrasting models subsuming morality within communion (Cuddy et al., 2008). One recent study (Abele et al., 2016) modeled both morality and warmth as facets of communion, but their warmth items included morally relevant terms (e.g., *caring*). In contrast, our model showed that when communion centers on social closeness, virtue items factored separately. The

three-factor structure was invariant across states/traits, and internal consistency and retest reliability were reasonable. Our results fit three-factor models about impressions (Goodwin et al., 2014) and ethics (Shweder et al., 1997), but extend them to self-states and purity metaphors.

If acts can move people in metaphorical social space toward the "moral high ground" versus the "dirty low-down," independent of agency or communion, social cognition research should distinguish virtue aspects from generic sociability or affiliation. Interpersonal circumplex and Big Five measures may sometimes confound virtue and warmth, measuring virtuous affiliation such as kindness but not morally neutral affiliation such as mere proximity, or even undesirable forms of affiliation like excessive people-pleasing or neediness. Three-dimensional space (e.g., Markey & Markey, 2006) may enhance precision. For instance, low-agency acts might vary between low ("brown-nosing"), neutral (submission), and high virtue (humility). Such mapping may clarify the socio-spiritual meaning of constructs and why personality disorders and associated behaviors such as attention-seeking, cruelty, and neediness are often morally stigmatized. This may bear implications for complementarity—how dominance and affiliation invite specific partner responses (see Gurtman, 2009)—but for virtue. Elevating acts elicit others' emulation, so virtuous or "spiritual" behavior might evoke responses in kind.

Addressing our third and fourth aim (Studies 2c and 3a/b), *perceived virtue demonstrated convergent and incremental validity* in cross-sectional results and daily life. Even after controlling for agency and communion, higher perceived virtue predicted the "moral" Big Five traits of Agreeableness and Conscientiousness and higher HEXACO HH. Unexpectedly, virtue correlated with Big Five and HEXACO Openness, implying curiosity in high-virtue individuals, consistent with past findings of linking Openness to engagement with moral beauty (Diessner et al., 2013). Moreover, nonsignificant correlations with socially desirable responding and low-relevance affective traits such as Neuroticism and Extraversion suggested discriminant validity and nonredundancy with those constructs.

Consistent with hypotheses and acts viewed as "pure" in Study 1, virtue items uniquely, cross-sectionally correlated with altruism, generosity, valuing relationships and serving community, valuing spirituality, and proneness to moral elevation. Similarly, in students' daily lives, higher aggregated virtue states over 10 days uniquely predicted higher compassionate goals, moral elevation, and closeness to God, and daily deviations above one's average virtue level predicted further increases. In the clinical sample, both aggregated states and within-person virtue increases predicted higher self-perceptions of character and moral elevation during patients' best moment of the day. Thus, correlates of the virtue items fit the theory that the purity dimension taps both unselfish social tendencies and a sense of moving near to the divine (Haidt, 2003). Although in the expected direction, links of virtue to lower extrinsic values and disgust propensity were not statistically significant when controlling agency and communion, suggesting virtue may reflect more than the absence of those characteristics.

Regarding markers of well-being, virtue correlated with higher happiness and self-esteem, but only happiness in partial correlations. In daily life, virtue states uniquely predicted higher between- and within-person PA in students and patients. Virtue unexpectedly did not uniquely predict lower within-person NA in students, though zero-order associations were significant. Stronger effects on positive outcomes may be attributable to positively worded virtue items, so

future studies must include bipolar items tapping the negative pole including perceived dirtiness and undesirable behaviors. Psychopathology was not assessed, but unique effects on happiness and PA fit the theory that self-schemas of moral worthlessness reflect a unique pathway to poorer well-being, distinct from helplessness and unlovability (Beck, 2011). Low agency and communion often underly psychopathology (Horowitz, 2004), but virtue perceptions may also be relevant to mental health. Erickson et al. (2017) showed that observer-rated virtue, but not dominance or affiliation, mediated stress-buffering effects of a compassionate goal intervention during a social stressor. Also, "behavioral activation" therapies improve mood via small doses of pleasant behavior but lack specificity. Within-person virtue predicted positive outcomes, so agentic, communal, and virtuous behavior may each possess mood-enhancing properties.

Lastly, the fact that others' behaviors toward the self-elicited perceived dirtiness or purity, particularly in homeless men and trafficked women, fits the theory that people may metaphorically contaminate or cleanse others by social acts. This is particularly important for individuals and/or groups perceived as *unclean* (e.g., "untouchables" in India, sexual minorities, people with personality disorders). Perceptions of impurity may sometimes motivate destructive social acts such as "ethnic cleansing." Further elucidation of these interpersonal processes may provide new insights and support destigmatization efforts.

Limitations and Conclusion

Several limitations were present. Virtue was assessed adjectivally, warranting further research on uni/bipolarity, which social acts load on each factor, and peer or observer ratings. Future research should clarify the shared and unique contributions of virtue perceptions to positive moral emotions like gratitude, negative moral emotions like shame, guilt and disgust, and accurate versus biased self-presentation. The community and clinical samples were more diverse than the student sample, but all samples overrepresented women, suggesting the need for sampling greater gender diversity. Some items showed lower factor loadings (e.g., *clean*), requiring future item refinement. To reduce participant burden with repeated measures, the diary studies did not include all self-perception items from the factor analytic studies; one item (*in control*) in a diary study was not included in factor analyses, warranting future research that goes beyond our representative items to sample the full range of items tapping virtue. Lastly, we presume cultural variability in acts appraised as pure/dirty, acknowledging need for cross-cultural designs.

Nonetheless, these studies suggest that individuals understand social acts of the self in terms of perceived virtue, with unique contributions to emotional and motivational outcomes beyond traditional social dimensions. Investigating states and traits related to perceived virtue may provide a fuller understanding of the processes that occur in the social spaces where humans reside— between the dirt and the heavens.

References

Abele, A. E., Hauke, N., Peters, K., Louvet, E., Szymkow, A., & Duan, Y. (2016). Facets of the fundamental content dimensions: Agency with competence and assertiveness—Communion with warmth and morality.

Frontiers in Psychology, 7, Article 1810. https://doi.org/10.3389/fpsyg .2016.01810

Algoe, S. B., & Haidt, J. (2009). Witnessing excellence in action: The 'other-praising' emotions of elevation, gratitude, and admiration. *The Journal of Positive Psychology*, 4(2), 105–127. https://doi.org/10.1080/174397608 02650519

Ashton, M. C., & Lee, K. (2009). The HEXACO-60: A short measure of the major dimensions of personality. *Journal of Personality Assessment*, 91(4), 340–345. https://doi.org/10.1080/00223890902935878

Badour, C. L., Feldner, M. T., Blumenthal, H., & Bujarski, S. J. (2013). Examination of increased mental contamination as a potential mechanism in the association between disgust sensitivity and sexual assault-related posttraumatic stress. *Cognitive Therapy and Research*, 37(4), 697–703. https://doi.org/10.1007/s10608-013-9529-0

Beck, J. (2011). *Cognitive behavioral therapy: Basics and beyond* (2nd ed.). Guilford Press.

Brambilla, M., Rusconi, P., Sacchi, S., & Cherubini, P. (2011). Looking for honesty: The primary role of morality (vs. sociability and competence) in information gathering. *European Journal of Social Psychology*, 41(2), 135–143. https://doi.org/10.1002/ejsp.744

Crocetti, E., Moscatelli, S., Kaniušonytė, G., Branje, S., Žukauskienė, R., & Rubini, M. (2018). Adolescents' self-perception of morality, competence, and sociability and their interplay with quality of family, friend, and school relationships: A three-wave longitudinal study. *Journal of Youth and Adolescence*, 47(8), 1743–1754. https://doi.org/10.1007/s10964-018-0864-z

Crocker, J., & Canevello, A. (2008). Creating and undermining social support in communal relationships: The role of compassionate and self-image goals. *Journal of Personality and Social Psychology*, 95(3), 555–575. https://doi.org/10.1037/0022-3514.95.3.555

Cuddy, A. C., Fiske, S. T., & Glick, P. (2008). Warmth and competence as universal dimensions of social perception: The stereotype content model and the BIAS map. *Advances in Experimental Social Psychology*, 40, 61–149. https://doi.org/10.1016/S0065-2601(07)00002-0

Diessner, R., Iyer, R., Smith, M., & Haidt, J. (2013). Who engages with moral beauty? *Journal of Moral Education*, 42(2), 139–163. https://doi.org/10.1080/03057240.2013.785941

Diessner, R., Solom, R. C., Frost, N. K., Parsons, L., & Davidson, J. (2008). Engagement with beauty: Appreciating natural, artistic, and moral beauty. *The Journal of Psychology*, 142(3), 303–329. https://doi.org/10.3200/JRLP.142.3.303-332

Emmons, R. A., & Kneezel, T. T. (2005). Giving thanks: Spiritual and religious correlates of gratitude. *Journal of Psychology and Christianity*, 24(2), 140–148.

Erickson, T. M., & Abelson, J. L. (2012). Even the downhearted may be uplifted: Moral elevation in the daily life of clinically depressed and anxious adults. *Journal of Social and Clinical Psychology*, 31(7), 707–728. https://doi.org/10.1521/jscp.2012.31.7.707

Erickson, T. M., Mayer, S. E., Lopez-Duran, N. L., Scarsella, G. M., McGuire, A. P., Crocker, J., & Abelson, J. L. (2017). Mediators of compassionate goal intervention effects on human neuroendocrine responses to the Trier Social Stress Test. *Stress*, 20(6), 533–540. https://doi.org/10.1080/10253890.2017.1368489

Erickson, T. M., McGuire, A. P., Scarsella, G. M., Crouch, T. A., Lewis, J. A., Eisenlohr, A. P., & Muresan, T. J. (2018). Viral videos and virtue: Moral elevation inductions shift affect and interpersonal goals in daily life. *The Journal of Positive Psychology*, 13(6), 643–654. https://doi.org/10.1080/17439760.2017.1365163

Giner-Sorolla, R., & Chapman, H. A. (2017). Beyond purity. *Psychological Science*, 28(1), 80–91. https://doi.org/10.1177/0956797616673193

Goodwin, G. P., Piazza, J., & Rozin, P. (2014). Moral character predominates in person perception and evaluation. *Journal of Personality and Social Psychology*, 106(1), 148–168. https://doi.org/10.1037/a0034726

Grouzet, F. M., Kasser, T., Ahuvia, A., Dols, J. M., Kim, Y., Lau, S., Ryan, R. M., Saunders, S., Schmuck, P., & Sheldon, K. M. (2005). The

structure of goal contents across 15 cultures. *Journal of Personality and Social Psychology*, 89(5), 800–816. https://doi.org/10.1037/0022-3514.89.5.800

Gurtman, M. B. (2009). Exploring personality with the interpersonal circumplex. *Social and Personality Psychology Compass*, 3(4), 601–619. https://doi.org/10.1111/j.1751-9004.2009.00172.x

Haidt, J. (2003). Elevation and the positive psychology of morality. In C. L. M. Keyes & J. Haidt (Eds.), *Flourishing: Positive psychology and the life well-lived* (pp. 275–289). American Psychological Association. https://doi.org/10.1037/10594-012

Horowitz, L. M. (2004). *Interpersonal foundations of psychopathology*. American Psychological Association. https://doi.org/10.1037/10727-000

Jayawickreme, E., Meinl, P., Helzer, E. G., Furr, R. M., & Fleeson, W. (2014). Virtuous states and virtuous traits: How the empirical evidence regarding the existence of broad traits saves virtue ethics from the situationist critique. *Theory and Research in Education*, 12(3), 283–308. https://doi.org/10.1177/1477878514545206

Kreft, I., & de Leeuw, J. (1998). *Introducing multilevel modeling*. Sage Publications. https://doi.org/10.4135/9781849209366

Landy, J. F., Piazza, J., & Goodwin, G. P. (2016). When it's bad to be friendly and smart: The desirability of sociability and competence depends on morality. *Personality and Social Psychology Bulletin*, 42(9), 1272–1290. https://doi.org/10.1177/0146167216655984

Luttrell, A., Sacchi, S., & Brambilla, M. (2022). Changing impressions in competence-oriented domains: The primacy of morality endures. *Journal of Experimental Social Psychology*, 98, Article 104246. https://doi.org/10.1016/j.jesp.2021.104246

Lyubomirsky, S., & Lepper, H. S. (1999). A measure of subjective happiness: Preliminary reliability and construct validation. *Social Indicators Research*, 46(2), 137–155. https://doi.org/10.1023/A:1006824100041

Mackinnon, A., Jorm, A. F., Christensen, H., Korten, A. E., Jacomb, P. A., & Rodgers, B. (1999). A short form of the Positive and Negative Affect Schedule: Evaluation of factorial validity and invariance across demographic variables in a community sample. *Personality and Individual Differences*, 27(3), 405–416. https://doi.org/10.1016/S0191-8869(98)00251-7

Markey, P. M., & Markey, C. N. (2006). A spherical conceptualization of personality traits. *European Journal of Personality*, 20(3), 169–193. https://doi.org/10.1002/per.582

New Revised Standard Version Bible. (1989). National Council of Churches.

Olatunji, B. O., Cisler, J. M., Deacon, B. J., Connolly, K., & Lohr, J. M. (2007). The Disgust Propensity and Sensitivity Scale-Revised: Psychometric properties and specificity in relation to anxiety disorder symptoms. *Journal of Anxiety Disorders*, 21(7), 918–930. https://doi.org/10.1016/j.janxdis.2006.12.005

Peterson, C., & Seligman, M. P. (2004). *Character strengths and virtues: A handbook and classification*. American Psychological Association.

Reynolds, W. M. (1982). Development of reliable and valid short forms of the Marlowe-Crowne Social Desirability Scale. *Journal of Clinical Psychology*, 38(1), 119–125. https://doi.org/10.1002/1097-4679(198201)38:1<119::AID-JCLP2270380118>3.0.CO;2-I

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton University Press. https://doi.org/10.1515/9781400876136

Rozin, P., Lowery, L., Imada, S., & Haidt, J. (1999). The CAD triad hypothesis: A mapping between three moral emotions (contempt, anger, disgust) and three moral codes (community, autonomy, divinity). *Journal of Personality and Social Psychology*, 76(4), 574–586. https://doi.org/10.1037/0022-3514.76.4.574

Saucier, G. (1994). Mini-markers: A brief version of Goldberg's unipolar big-five markers. *Journal of Personality Assessment*, 63(3), 506–516. https://doi.org/10.1207/s15327752jpa6303_8

Schnall, S. (2011). Clean, proper and tidy are more than the absence of dirty, disgusting and wrong. *Emotion Review*, 3(3), 264–266. https://doi.org/10.1177/1754073911402397

Schnall, S., Roper, J., & Fessler, D. M. (2010). Elevation leads to altruistic behavior. *Psychological Science*, *21*(3), 315–320. https://doi.org/10.1177/0956797609359882

Shweder, R. A., Much, N. C., Mahapatra, M., & Park, L. (1997). The "big three" of morality (autonomy, community, divinity) and the "big three" explanations of suffering. In A. M. Brandt & P. Rozin (Eds.), *Morality and health* (pp. 119–169). Taylor & Frances/Routledge.

Smith, C., & Hill, J. P. (2009). *Toward the measurement of interpersonal generosity (IG): An IG scale conceptualized, tested, and validated* [Unpublished monograph]. University of Notre Dame.

Tybur, J. M., Lieberman, D., & Griskevicius, V. (2009). Microbes, mating, and morality: Individual differences in three functional domains of disgust. *Journal of Personality and Social Psychology*, *97*(1), 103–122. https://doi.org/10.1037/a0015474

Van Cappellen, P., Saroglou, V., Iweins, C., Piovesana, M., & Fredrickson, B. L. (2013). Self-transcendent positive emotions increase spirituality through basic world assumptions. *Cognition and Emotion*, *27*(8), 1378–1394. https://doi.org/10.1080/02699931.2013.787395

Wiggins, J. S. (1991). Agency and communion as conceptual coordinates for the understanding and measurement of interpersonal behavior. In D. Cicchetti, W. M. Grove, D. Cicchetti, & W. M. Grove (Eds.), Thinking clearly about psychology: Essays in honor of Paul E. Meehl, Vol. 1: *Matters of public interest; Vol. 2: Personality and psychopathology* (pp. 89–113). University of Minnesota Press.

Wojciszke, B. (2005). Morality and competence in person- and self-perception. *European Review of Social Psychology*, *16*(1), 155–188. https://doi.org/10.1080/10463280500229619