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The relation between elevation and self-reported prosocial behavior: Incremental validity over the Five-Factor Model of Personality

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With the development of the field of positive psychology, new constructs have made their way into the literature. One such construct, elevation, represents a positive moral emotion that is experienced when one witnesses the kind, moral behavior of others (Haidt, 2003). To date, few researchers have examined this construct. The current study examined elevation by locating it in the factor space of the Five-Factor Model of Personality, and determined its relation to the constructs of spiritual transcendence and self-reported prosocial behavior. A total of 188 student participants were recruited. Results indicated that Extraversion, Openness to Experience, Agreeableness, spiritual transcendence, and self-reported prosocial behavior were all positively correlated with elevation. Moreover, the results indicated that elevation provided significant incremental validity in predicting self-reports of prosocial behavior over and above the Five-Factor Model of Personality and spiritual transcendence. Clinical implications, limitations, and suggestions for future research are considered.

Keywords: elevation; personality; prosocial behavior; positive psychology

Introduction

Researchers in the expanding field of positive psychology have pushed for a focus on and rigor in the examination of positive emotions comparable to that found in the study of negative emotions (Fredrickson, 2001; McCrae, 2001; Piedmont, 1999b; Ryff & Singer, 1998; Seligman, 2002). To date, researchers' focus on negative emotions has constrained not only what we understand about emotions but also the way in which we come to understand them (Fredrickson, 2001; Gable & Haidt, 2005; Seligman & Csikszentmihalyi, 2000; Watson, 2002). As those who study positive emotions are discovering, positive and negative emotions may be qualitatively non-equivalent. Specifically, state-like negative emotions lead to limited action/well-defined specific tendencies useful for short-term survival (Fredrickson, 2001; Fredrickson & Branigan, 2005). For example, when a person experiences fear, aversive behavioral options are limited to fight or flight in service of immediate survival. Positive emotions, conversely, appear to engender ever-expanding cognitive and behavioral repertoires (Fredrickson & Branigan, 2005). Because positive emotions are experienced when a person feels secure (i.e., when survival does not appear to be threatened and basic needs are met), his or her attentional, cognitive, and behavioral options are said to broaden in the moment, as compared to the more limited action-tendency response often seen with negative emotions and traits. Beyond that, the person's affective, cognitive, and behavioral repertoire increases in the long term for having experienced the emotional state (Fredrickson & Joiner, 2002; Seligman, Steen, Park, & Peterson, 2005; Wadlinger & Isaacowitz, 2006). According to Fredrickson and Losada (2005), such emotion-engendered expansion is beneficial to the individual not only while the positive emotion is being experienced, but also well after the experience has subsided. That is, although the experience of a positive emotion is immediate, there appear to be thought-action repertoires that develop over time: 'Specifically, broadened mindsets carry indirect and long-term adaptive value because broadening builds enduring personal resources, like social connections, coping strategies, and environmental knowledge' (Fredrickson & Losada, 2005, p. 679).

The positive emotion known as *elevation* is familiar to many experientially, though perhaps not by name. Thomas Jefferson may have been the first person to identify the term elevation, and to have provided a definition. In a communication to Robert Skipwith, a friend, he wrote, 'When any signal act of charity or of gratitude, for instance, is presented either to our sight or imagination, we are deeply impressed with its beauty

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and feel a strong desire in ourselves of doing charitable and grateful acts also' (Jefferson, 1771/1975, p. 349). Two hundred and thirty years later, Haidt (2003) wrote that the state of elevation is often triggered within individuals when observing others displaying virtues or strength of character. Haidt further noted that elevation is an 'emotional response to ''moral beauty'' or human goodness; it usually includes a warm and pleasant feeling in the chest and a desire to become a better person, or to lead a better life' (p. 305). Such feelings, thoughts, and behaviors typify the experience of elevation (Haidt, 2000, 2003). Specific virtues such as charity, gratitude, courage, and loyalty are also recognized as triggers of elevation (J. Haidt, personal communication, March 8, 2008), but not all virtues elicit elevation (e.g., wisdom, moderation, perseverance). Despite the ubiquity of its experience, elevation, like other positive emotional constructs, remains largely unexplored in the literature (Seligman, 2000). Only recently has the relation between positive emotions and enduring characteristics of personality been explored (Fredrickson, 2001, 2005; Watson, 2002). The aim of the present study was to examine the uniqueness of elevation. If established as such, elevation, which Algoe and Haidt (2008) have proposed contains both intrapersonal and interpersonal enrichment, might become an important addition to the currently accepted repertoire of positive emotions (see Seligman et al., 2005).

Elevation

According to Keltner and Haidt (2003), elevation is a member of the awe-family of feeling states (which includes inspiration and admiration). However, it is distinguished from awe in that events preceding elevation are not characterized by the vastness or power of what is being observed. Witnessing simple acts of everyday kindness, such as one person giving up a seat on the bus, is as likely to arouse elevation as hearing about the profound selflessness of Mother Theresa of Calcutta. Further, whereas an awe-struck person feels lowered or less-than in comparison to the object of awe (Keltner & Haidt, 2003), elevated people feel connected to the people they witness as involved in the uplifting act and may feel inspired to behave in a comparably altruistic manner, which they believe they are capable of doing (Haidt, 2000, 2003).

Haidt (2003) further believes that elevation, along with admiration and gratitude, comes under the umbrella of 'other-praising' emotions. Other-praising emotions, according to Haidt (2003), are about noting excellence in another person, and then changing one's behavior toward that person and others. These emotions differ in that elevation is considered to be a response to moral excellence (e.g., charity) that does not benefit the self directly but does increase openness and warmth towards others, whereas gratitude is a response to moral excellence (e.g., generosity) of another person that does benefit the self and appears to motivate individuals not only to repay others but to get closer to them (Algoe & Haidt, 2008). Admiration is a response to non-moral excellence (e.g., extraordinary displays of skill) often leading to increased motivation to work harder on personal goals (e.g., self-improvement). Falling within the same family of 'other-praising' emotions is inspiration (Ortony, Clore, & Collins, 1988), which is considered by Thrash and Elliott (2004) to be a motivational state rather than an emotion per se. They posit that inspiration integrates two component processes: '(a) being inspired *by* [e.g., music, nature, literature, acts of human kindness], which involves transcendence [to be focused on something that is better or more important than one's typical involvements, to transcend the more animalistic side of human nature] and denial of responsibility [inspiration is elicited by a stimulus in the environment and not emitted] on encountering an inspiring influence [e.g., a role model], and (b) being inspired *to*, which involves motivation to [action tendency] transmit or extend the inspiring qualities toward a motivational object [e.g., a future self]' (Thrash & Elliott, 2004, pp. 969–970). The extent to which elevation is different from inspiration and whether it possesses both processes (i.e., being inspired to and being inspired by) remains an empirical question. Thus, while inspiration and elevation may appear to be similar constructs, according to Algoe and Haidt (2008) they are not synonymous phenomena. Although both elevation and inspiration are triggered by an external factor that may cause motivation in the person, elevation may have a more direct connection with others (greater connectedness, affiliation, warmth towards others, and desire to help others) than does inspiration. Although inspiration may seem to be directed toward self-improvement, one could just as easily be inspired to help others. A further distinction between elevation and inspiration is the degree to which the two states involve energy. Thrash and Elliot (2004) claim that inspiration can provide energy for immediate action, whereas elevation according to Algoe and Haidt (2008), 'is a calmer emotion which seems to increase openness and warmth towards others; it may not lead to immediate altruistic action when such action is difficult' (p. 30).

Elevation and prosocial behavior

Based upon some early findings of an unpublished study by Haidt (2003), elevated participants (produced

via manipulation) were more likely to report the desire to help others, to become better people themselves, and to affiliate with others. Initially it was thought that by exposing individuals to elevating events, they would subsequently engage in prosocial behaviors. However, according to J. Haidt (personal communication, March 8, 2008) there have been no published studies showing this direct connection. What has been found experimentally is that elevation appears to have both physiological and behavioral effects. Silvers and Haidt (2008) have reported that nursing mothers who watched a morally elevating video were more likely to nurse their infants and marginally more likely to hug their children than mothers who watched a comedy video. The authors suggest that the release of oxytocin, a hormone associated with lactation and affiliation, is likely to be the mediating variable.

Furthermore, Silvers and Haidt (2008) point out that although elevation is primarily connected to positive emotions, they suspect that elevation 'might involve some underlying physiological systems that are part of the stress-related ''tend and befriend'' response described by Taylor et al. (2000).' Algoe and Haidt's (2008) most current thinking (incorporating the oxytocin link) posits that elevation elicited by moral beauty starts a sequence of love, connection, affiliation, and warmth towards familiar people. It may increase an individual's *feelings* of love toward familiar people and strangers alike, but will only energize an individual to take *action* with people he/she already knows. Whether individuals in elevated states will engage in prosocial behavior when the opportunity arises and is easy to perform remains an empirical question, but one that is worthy of investigation.

Elevation and spiritual transcendence

Another construct related to elevation appears to be spiritual transcendence. Piedmont (1999a) has defined spiritual transcendence as 'the capacity of individuals to stand outside of their immediate sense of time and place and to view life from a larger, more objective perspective. This transcendent perspective is one in which a person sees a fundamental unity underlying the diverse strivings of nature' (Piedmont, 1999a, p. 988). In addition, Piedmont (1999a) has developed the Spiritual Transcendence Scale which assesses three components of spiritual transcendence: *Universality* (a belief in the unity and purpose of life), *Prayer Fulfillment* (an experienced feeling of joy and contentment that results from prayer and/or meditation), and *Connectedness* (a sense of personal responsibility and connection to others). Not only are the definitions of elevation and spiritual transcendence similar, but the research findings also reinforce the similarity of the two constructs. For instance, people experiencing elevation (J. Haidt, personal communication, April 28, 2003), like those high in prayer fulfillment (Piedmont, 1999a), report increased feelings of contentment and joy. When such feelings are experienced, people feel connected with others, they become more aware of the limitations of their own perspective, and they search for a greater meaning beyond their own understanding through these experiences (Piedmont, 1999a). Spiritual transcendence may relate to aspects of elevation that concern how people feel about a broader connection to others and sense a larger purpose and meaning to their lives (e.g., connectedness and universality). Due to the similarities between the constructs of elevation and spiritual transcendence and due to the motivation toward prosocial behavior associated with both experiences, measures of spiritual transcendence and prosocial behavior were included in the present study.

Elevation and the Five-Factor Model

Developed to study the dimensional aspects of personality, the Five-Factor Model of Personality (FFM), has shown a great deal of promise in mapping out individual differences in human behavior (Digman, 1990). Using the FFM provides researchers with a point of reference for personologically interpreting new constructs, like elevation. The FFM can be helpful in ascertaining whether a new construct displays characteristics of traits, primary emotions (instinctual), or secondary emotions (socially constructed) (Stein & Oatley, 1992). Is elevation a fleeting temporary state or is it a longer-lasting state that involves 'cognition, morality, evolution, memory and an active, rather than reactive, role of the person' (Leyens et al., 2000, p. 189)? To what extent is elevation redundant with the FFM? If it is different then what is it? The current study was designed, in part, to begin this process of ascertaining the nature of elevation.

Additionally, concerns about the construct validity of elevation (e.g., Gorsuch, 1988) can be allayed by using the FFM to identify overlap between newly proposed variables and the personality domains as well as to identify relations between emerging constructs. Likewise, concerns about incremental validity (e.g., Van Wicklin, 1990) can be addressed through regression analysis and the use of the FFM to identify variance not related to the personality domains. Finally, the FFM provides a common language for researchers and enables them to organize models of personality (Piedmont, 1999b). Although few positive emotions and behaviors have been examined using the FFM, existing data linking the FFM to constructs

related to elevation (i.e., prosocial behavior) were used to inform our hypotheses.

No previous research, to our knowledge, has examined elevation in the light of the FFM. Thus, the current study provides a first step in understanding how elevation may reflect personality and motivational qualities. Doing so helped us to discern the personalogical implications of the construct. In addition, because elevation appears to represent qualities not fully contained by the FFM, we would expect the construct to show incremental validity in predicting outcomes over and above the FFM domains.

Taking the lead from Thrash and Elliot (2003), who demonstrated that inspiration was primarily related to openness to experience (primarily inspired *by*) and extraversion (primarily inspired *to*, an action tendency), the current study posited that elevation, like inspiration, would be positively related to openness to experience and extraversion. Support for the elevation and extraversion association also comes from Haidt's (2000, 2003) studies, where elevated individuals were more likely to report a desire to associate with others and to have an increased awareness of others, characteristics seen in extraverted individuals (Costa & McCrae, 1992). In addition, based upon the findings of Costa and McCrae (1992) that individuals who score high on the Agreeableness domain tend to display characteristics (e.g., trusting, forgiving, warm, soft-hearted, friendly, and sympathetic) that are consistent with the knowledge we have about elevation, a positive relation was predicted. Elevation's relations to the other domains of neuroticism and conscientiousness were examined in an exploratory fashion.

In sum, the hypotheses were as follows: Individuals high on elevation would also be high on Extraversion, Openness to Experience, and Agreeableness. Elevation would positively correlate with measures of self-reported prosocial behavior and spiritual transcendence. Elevation would account for variance above and beyond the domains and facets of the FFM and spiritual transcendence in predicting self-reports of prosocial behavior.

Method

Participants

A total of 48 men and 140 women were recruited from various undergraduate psychology courses at Loyola College in Maryland, a private, Jesuit, liberal arts college, enrolling approximately 3300 undergraduates in the mid-Atlantic region. Participants received course credit; their involvement was voluntary and anonymous. Four data protocols were excluded from use due to greater than 10% missing data from one or more of the measures.

Measures

Revised NEO Personality Inventory (NEO PI-R)

The NEO PI-R developed by Costa and McCrae (1992) is a 240-item self-report questionnaire that was designed to measure the five domains of the FFM, which include Neuroticism (N), Extraversion (E), Openness to Experience (O), Agreeableness (A), and Conscientiousness (C). The NEO PI-R utilizes a 5-point Likert-type scale ranging from 1 (*strongly agree*) to 5 (*strongly disagree*) and items are balanced to control for positive or negative response bias. Each of the domain scales is divided into six facet scales that measure various aspects of the primary domains and each facet is composed of eight items. For each domain and facet, raw scores are converted to T scores, which are normed for gender and age.

Costa and McCrae (1992) reported internal consistency reliabilities of the respondents' responses for the domain scales ranging from 0.86 to 0.92 (current sample values ranged from 0.87 to 0.92) and for the facet values ranging from 0.56 to 0.81 (current sample values ranged from 0.51 to 0.80). Test–retest reliabilities for 6-year and 3-year longitudinal studies ranged between 0.63 and 0.87 for the domain scales and ranged between 0.68 and 0.79 for the facets on the NEO PI-R. The NEO PI-R has an excellent reputation for assessment with normal personalities. Piedmont (1998) provides an overview of the validity of the NEO model in terms of its interpretive and predictive capabilities.

Assessment of Spirituality and Religious Sentiments (ASPIRES)

Developed by Piedmont (2004), this 23-item self-report measure consists of three subscales: Universality, Prayer Fulfillment, and Connectedness. Items are rated on a 5-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Subscales are composed of items such as 'I feel that on a higher level all of us share a common bond' (Universality), 'I find inner strength and/or peace from my prayers and/or meditations' (Prayer Fulfillment), and 'I have done things in my life because I believed it would please a parent, relative, or friend that had died' (Connectedness). Items are differentially reflected to control for acquiescence effects. Similar to the NEO PI-R domains and facets, raw scores are converted into T-scores normed by gender and age. Piedmont (2004) reported reliabilities of the responses on the Universality, Prayer Fulfillment, and Connectedness scales, and overall Spiritual Transcendence Scale as 0.94, 0.78, 0.49, and 0.89, respectively (current sample values were 0.94, 0.80, 0.46, and 0.90, respectively). The ASPIRES has been significantly correlated with a number of psychosocial outcomes. For example, the

total spiritual transcendence score on the ASPIRES was found to be positively correlated with hope, positive affect, prosocial behavior, and purpose in life. In contrast, it was found that the ASPIRES was negatively correlated with individualism, negative affect, and sexual attitudes scales (high scores indicated erotophilia; Piedmont, 2004). Furthermore, Piedmont (2004) reported that the ASPIRES was able to provide incremental validity beyond that provided by the FFM personality domains for the above psychosocial outcome variables. Piedmont and Leach (2002) tested the cross-cultural generalizability of the spiritual transcendence scales in India and found that there was preliminary support for their use with diverse faiths (see also Goodman, Cho, & Wilson as cited in Piedmont, 2004). This research supported Piedmont's proposal that spirituality and religiosity were universal constructs and further indicated their distinctiveness from the FFM personality domains.

Self-Report Altruism scale (SRA-scale)

Developed by Rushton, Chrisjohn, and Fekken (1981), this 20-item self-report scale measures altruistic behaviors. Participants rate the frequency with which they have performed certain altruistic behaviors using the categories *Never*, *Once*, *More Than Once*, *Often*, and *Very Often*. Examples of items include 'I have donated blood' and 'I have made change for a stranger.' Scores can range from 20 to 100 with higher scores reflecting a greater tendency to evidence prosocial behavior. Rushton et al. (1981) reported reliability values for five samples ranging from 0.78 to 0.87 (the current sample generated an alpha of 0.82). Self-report and peer report ratings for the SRA-scale were significantly correlated at 0.35. Scores on the SRA-scale also evidenced validity by predicting relevant outcomes such as the likelihood of filling out an organ donor card and responses on altruism simulations. Additionally, Rushton et al. (1981) delineated a comprehensive list of convergent findings with other measures that examined elements of prosocial behavior.

Elevation scale

Developed by J. Haidt (personal communication, April 28, 2003) this scale contains 13-items. It asks participants to indicate the frequency with which they experience feelings characteristic of this emotion after having witnessed a virtuous act. Examples of items include 'I get tears in my eyes,' 'It makes me want to tell the story to other people,' and 'I feel like I want to do something good too.' Participants rate the frequency with which they have had these experiences by using the categories *Never*, *Sometimes*, *Usually*, and *Always*. Haidt included three items in the measure that are not characteristics of elevation to identify those individuals that may endorse all items. Total scores can range from 10 to 40 with higher scores reflecting a greater tendency to report the experience of elevation. J. Haidt (personal communication, April 28, 2003) reported a reliability coefficient for the responses on the elevation scale of 0.83. The current authors recognize that due to the relatively recent development of this scale, there are limited data on the validity of responses to the scale (e.g., degree of relation to socially desirable responding). However, it should be pointed out that controlling for socially desirable responding may not be such a good idea. That is, as Paulhus (1991) and others (e.g., Hsu, 1986; Kozma & Stones, 1987; McCrae, 1986; McCrae & Costa, 1983; Piedmont, McCrae, & Costa, 1992) have shown, controlling for socially desirable responding actually reduces the predictive validity of content measures, test–retest reliability, and convergent and discriminant validity.

Procedure

Participants were told that the purpose of the study was to examine spiritual beliefs and personality characteristics. Packets containing the NEO PI-R, the ASPIRES, the SRA-scale, and the elevation scale as well as consent, instruction, and demographic forms were then distributed. The questionnaires were counterbalanced to prevent order effects and took approximately 50 to 60 minutes to complete. After completing all of the questionnaires, participants were asked to place their forms in an envelope at the front of the testing room. A separate date for debriefing was offered to all participants to explain the study and to answer any additional questions.

Results

Factor structure of elevation items

Prior to testing the hypotheses of the current study, a number of background analyses were conducted in order to examine available psychometric properties of the elevation scale. The first analysis examined the factor structure of the 10 scored elevation items via a principal component analysis with varimax rotation.[1] Using the Scree plot, two meaningful factors emerged accounting for a total of 51.64% of the variance (Elevation-Factor I accounting for 30.27% and Elevation-Factor II accounting for 21.36%). Elevation-Factor I had seven items (#'s 13, 12, 11, 7, 8, 10, and 4) loading at least 0.54.[2] The highest loadings were: 'It makes me feel more open and loving towards people in general' (0.74), 'It makes me want to thank or reward the person who did the good deed' (0.72), and 'It makes me want to tell the story to other people' (0.68). A reliability analysis of these

seven items resulted in a Cronbach alpha of 0.80. Factor II had three items (#'s 1, 2, and 5) loading at least 0.70. The loadings were: 'I get ''choked'' up' (0.85), 'I feel tingles or chills or goose bumps' (0.79), and 'I get tears in my eyes' (0.70). These three items generated a Cronbach alpha value of 0.71. Elevation-Factor I appears to be getting at a certain 'connectedness' to others, whereas Elevation-Factor II appears to be more of a physiological reaction. Two scales were then formed by summing the items that loaded on each factor.

Examining elevation filler items

In order to determine whether participants were responding to the three-filler items as they had all of the other items or whether these items were being treated in a distinctive way, a second principal component analysis with a varimax rotation was conducted on all 13 elevation items. The Scree plot was used to determine the number of meaningful factors. Four factors emerged (item loadings had to reach the 0.40 level) which accounted for 60.96% of the total variance. The Elevation-Factor I remained intact with five out of the seven items loading at least 0.57. The other two Elevation-Factor I items loaded on this first component (Item #8 at 0.41 and Item #10 at 0.29) and on another component, but at lower values. If items #8 and 10 are dropped from the Elevation-Factor I scale, the Cronbach alpha drops from 0.80 to 0.77, suggesting that these items do add systematic variance to this scale. All of the Elevation-Factor II items emerged on the second factor (item loadings ranging from 0.82 to 0.65). However, a filler item, #9 ('I have a hot, flushed feeling in my face') loaded on this second factor at a value of 0.49. Thus, this filler item was responded to in a manner consistent with the other elevation physiological items. The third factor to emerge had two items loading on the component (filler item #3 ['I feel a cool, pleasant feeling in my stomach'] and regular item #8 ['I feel a warm or glowing feeling in my chest']). Another regular physiological elevation item also loaded on this component at a value of 0.42 (Item #2, 'I feel tingles or chills or goose bumps'). This factor contains items that deal with physiological sensations. Finally, the fourth factor to emerge had two items loading at least 0.65 (regular elevation item #10 ['It makes me feel that I am somehow ''lifted up'' or ''nobler'' myself'] and filler item #6 ['It makes me feel that I am somehow a worse person, in contrast to that person'). Interestingly, the physiological filler item #9 [I have a hot, flushed feeling in my face] also loaded (0.49) on this factor. Two filler items (#3 and 9) apparently are tied to the regular physiological items. However when a reliability analysis was done, the Cronbach alpha for the three Elevation-Factor II physiological items and the two filler physiological items dropped from 0.71 to 0.65, suggesting that these two filler items are not adding any additional systematic variance to the Elevation-Factor II scale. Whereas the third filler item (#6) that deals with feeling worse when hearing or seeing something kind, compassionate, courageous, or beautiful was not related in a univariate (e.g., zero-order correlation) fashion to any of the elevation items. When filler item #6 was added to the Elevation-Factor I scale items, the Cronbach alpha also dropped from 0.80 to 0.76. It appears that without the filler items there are two distinct elevation factors, whereas with the filler items four factors emerge with a number of dual loadings. However, the filler items do not contribute to increases in systematic variance in either elevation factors. Thus, the current study utilized only the 10 regular content elevation items, which formed two elevation scales.

Factor structure of elevation items and NEO PI-R facets

A principal component analysis with a varimax rotation was also conducted using all 10 regular content elevation items and all 30 NEO PI-R facets. Nine components emerged which accounted for 64.67% of the total variance. Examination of the Scree plot resulted in clearly showing the five NEO domains along with four other factors. All the facets associated with Neuroticism (facet loadings ranged from 0.82 to 0.52), Conscientiousness (facet loadings ranged from 0.81 to 0.62), and Extraversion (facet loadings ranged from 0.84 to 0.53) loaded on their respective factors. Openness to Experience had five out of six facets loading on the factor (ranging from 0.78 to 0.45), whereas the six facets of Agreeableness were distributed among three factors. All 10 elevation items loaded on the two previously identified factors. For Elevation-Factor I, the seven item loadings ranged from 0.71 to 0.50 (item #10 loaded on this factor [0.50] but also loaded on a separate factor [0.60] with the Openness to Experience facet of Actions), whereas for Elevation-Factor II the three previous identified item loadings ranged from 0.80 to 0.62. In addition, the NEO facets did not demonstrate any major loadings on the two elevation factors. For Elevation-Factor I, the average facet loadings were: Neuroticism = −0.01 (ranging from −0.07 to 0.13), Conscientiousness = 0.04 (ranging from −0.23 to 0.17), Extraversion = 0.13 (ranging from −0.01 to 0.23), Openness = 0.02 (ranging from −0.23 to 0.18), and Agreeableness = 0.08 (ranging from −0.15 to 0.24). Similar findings were noted for the Elevation-Factor II where Neuroticism = 0.00 (ranging from −0.05 to 0.07), Conscientiousness = 0.02

(ranging from −0.09 to 0.15), Extraversion = 0.00 (ranging from −0.12 to 0.20), Openness = 0.01 (ranging from −0.18 to 0.12), and Agreeableness = −0.02 (ranging from −0.13 to 0.13). Thus, the elevation factors appeared to be distinct from the NEO facets.

Examination of the response bias of acquiescence

In order to assess whether participants were engaged in the response bias of acquiescence, a total acquiescence index was created by summing the total number of *agree*s and *strongly agree*s across all 240 NEO PI-R items (134 regular coded items and 106 reversed coded items) and this total was then regressed onto the five domains of personality. A residual score was then formed by subtracting the predicted score (from the regression analysis and based upon the five personality domains) from the actual acquiescence total score. This residual score represents a more 'pure' measure of acquiescence because personality as measured in the current study was extracted. This score was then correlated with all relevant variables of the study, excluding the five domains of personality because all of their variances had already been removed from this score. Results revealed that this acquiescence index was linearly, but weakly, related to Elevation-Factor I, Elevation-Factor II, and to spiritual transcendence, $r(186) = 0.16$, $p < 0.05$, $r(186) = 0.24$, $p < 0.001$, and $r(186) = 0.19$, $p < 0.01$, respectively. [Elevation filler items (#3, #6, #9), gender, and self-reported prosocial behavior were not linearly related to this index, $r(186) = 0.05, ns$, $r(186) = -0.04, ns$, $r(186) = 0.09, ns$, $r(186)$ $0.01\, ns$, and $r(186) = 0.08, ns$, respectively.] Taken together, all of the above results are supportive of the view that the filler items were uniquely different from the regular content items and not related to an acquiescence response bias, suggesting that the participants were likely paying attention to the content of the scale items and not responding with an acquiescence response bias.

Gender differences

Gender differences were explored and findings revealed that there were only two scales in which male and female students differed statistically. Female students ($M = 18.28$, $SD = 3.58$) reported higher levels of Elevation-Factor I than male students did ($M = 16.96$, $SD = 3.89$), $t(186) = 2.15$, $p < 0.05$, $d = 0.36$, 95% CI 0.03–0.69). For Elevation-Factor II ($M_{\text{Female}} = 6.10$, $SD_{\text{Female}} = 1.65$ vs. $M_{\text{Male}} = 5.02$, $SD_{\text{Male}} = 1.51$, $t(186) = 4.00$, $p < 0.001$, $d = 0.67$, 95% CI 0.33–1.00). There was no statistical difference between male and female students on the each of the elevation filler items.

Testing relations between elevation and the FFM

Results from the data analyses supported the predictions that elevation would be correlated positively with Extraversion, Openness to Experience, and Agreeableness. (See Table 1 for zero-order correlations among all variables.) Specifically, the strongest positive zero-order correlation of moderate strength for Elevation-Factor I occurred with Extraversion and was followed by Openness to Experience and Agreeableness. Note that the Elevation-Factor II was not related to the personality domains. The total acquiescence index variable was partialed out of the above relations and the results remained unchanged (median change for both elevation factors was −0.01). Table 2 presents the correlations among the Elevation factors and the 30 NEO PI-R facets. Neither of the Elevation factors was related to any of the Neuroticism facets, but Elevation-Factor I was

Table 1. Intercorrelations among the personality domains, ASPIRES, SRA, and elevation factors.

Variable	1	2	3	4	5	6	7	8	9
1. N	1.00								
2. E	−0.31***	1.00							
3. O	0.00	0.23**	1.00						
4. A	−0.18*	0.02	0.10	1.00					
5. C	−0.37***	0.11	−0.11	0.21**	1.00				
6. ASPIRES	−0.07	0.22**	0.12	0.27***	0.26***	1.00			
7. SRA	−0.10	0.27***	0.24****	0.13	0.07	0.23**	1.00		
8. Elevation I[a]	−0.07	0.30***	0.22**	0.18*	0.14	0.42***	0.33***	1.0	
9. Elevation II[b]	0.02	0.07	0.08	0.02	0.04	0.21**	0.09	0.39***	1.0

Notes: $N = 188$. N = Neuroticism; E = Extroversion; O = Openness to Experience; A = Agreeableness; C = Conscientiousness; ASPIRES = Assessment of Spirituality and Religious Sentiments; SRA = Self-Report Altruism Scale.
*$p < 0.05$, two-tailed; **$p < 0.01$, two-tailed; ***$p < 0.001$, two-tailed.
[a]Elevation score based upon the summing of factor I items (#'s 4, 7, 8, 10, 11, 12, 13).
[b]Elevation score based upon the summing of factor II items (#'s 1, 2, 5).

Table 2. Intercorrelations among the personality facets and elevation factors.

Variable	Elevation-Factor I *r*	Elevation-Factor II *r*
Neuroticism		
Anxiety	0.07	0.04
Angry/hostility	−0.11	0.05
Depression	0.09	−0.03
Self-consciousness	−0.06	−0.01
Impulsiveness	−0.04	0.00
Vulnerability	−0.07	0.05
Extraversion		
Warmth	0.34***	0.00
Gregariousness	0.14	0.02
Assertiveness	0.19**	0.08
Activity	0.27***	0.00
Excitement-seeking	0.16*	0.14
Positive emotions	0.29***	0.05
Openness to Experience		
Fantasy	0.15*	0.11
Aesthetics	0.27***	0.13
Feelings	0.26***	0.16*
Actions	0.00	−0.04
Ideas	0.21**	0.04
Values	−0.11	−0.15*
Agreeableness		
Trust	0.24***	0.03
Straightforwardness	0.01	−0.10
Altruism	0.21**	−0.04
Compliance	0.17*	0.07
Modesty	−0.07	0.04
Tender-mindedness	0.20**	0.07
Conscientiousness		
Competence	0.15*	0.00
Order	−0.08	−0.02
Dutifulness	0.13	−0.01
Achievement-striving	0.25***	0.10
Deliberation	0.04	0.11
Self-discipline	0.16*	0.02
	R^2	R^2
All NEO PI-R Five Domains	0.16***	0.01
All 30 NEO PI-R Facets	0.38***	0.23**

Notes: *$p < 0.05$, two-tailed; **$p < 0.01$, two-tailed; ***$p < 0.001$, two-tailed.

consistently related to 16 out of the remaining 24 facets (the highest zero-order correlations occurred with the facets of Warmth and Positive Emotions). Elevation-Factor II was related to two out of the remaining 24 facets (the facets of Feelings and Values [negatively]). Next, in order to examine the proportion of Elevation-Factor I variance that could be accounted for by the FFM, a multiple regression analysis (using forced entry of all domains) was conducted using the Elevation-Factor I as the outcome variable. Results revealed that the five domains accounted for 15.7% (R^2 and 13.4% R^2 adjusted) of the Elevation-Factor I variance, $F(5, 182) = 6.80$, $p < 0.001$. Three out of the five domains were significant and consistent with the zero-order correlations (Neuroticism [ß = 0.09, *ns*], Extraversion [ß = 0.28, $p < 0.001$], Openness to Experience [ß = 0.16, $p < 0.05$], Agreeableness [ß = 0.15, $p < 0.05$], and Conscientiousness [ß = 0.13, $p < 0.09$.]). The variance of Elevation-Factor II was not accounted for by linear combination of the five domains. An additional similar regression analysis was run using all 30 facets (six facets per domain) of the FFM in order to provide for a more comprehensive coverage of personality. Results from this analysis revealed that the 30 facets accounted for 37.5% (R^2 and 25.6% R^2 adjusted) of the Elevation-Factor I variance, $F(30, 157) = 3.14$, $p < 0.001$. Six out of the 30 facets were significant (Extraversion–Warmth [ß = 0.30, $p < 0.02$], Extraversion–Excitement Seeking [ß = 0.19, $p < 0.04$], Openness to Experience–Aesthetics [ß = 0.23, $p < 0.02$], Openness to Experience–Values [ß = −0.22, $p < 0.006$], Agreeableness–Tender-Mindedness [ß = 0.17, $p < 0.05$], and Conscientiousness–Order [ß = −0.23, $p < 0.006$.]). The 30 facets accounted for 23.0% (R^2 and 8.3% R^2 adjusted) of the Elevation-Factor II variance, $F(30, 157) = 1.57$, $p < 0.05$. Only four out of the 30 facets were significant (Extraversion–Excitement Seeking [ß = 0.25, $p < 0.02$], Agreeableness–Modesty [ß = 0.23, $p < 0.02$], Agreeableness–Straightforwardness [ß = −0.23, $p < 0.02$], and Openness to Experience–Values [ß = −0.20, $p < 0.03$]). All of the above analyses were repeated controlling for the total acquiescence response index and, in all instances, there were no noteworthy changes in significant results.

Testing relations between elevation and spiritual transcendence and self-reported pro-social behavior

Prior to testing the hypotheses regarding elevation and spiritual transcendence and prosocial behavior, two principal component analyses were conducted and the Scree plot was used to determine the number of meaningful factors. In addition, items had to load at least 0.40 on a single component to be recognized as belonging to that particular component. In the first analysis (utilizing the oblique rotation method given the correlated nature of the three sub-scales that tap spiritual transcendence: Prayer Fulfillment, Universality, and Connectedness; Piedmont, 2004) the 10 elevation items and the 23 spiritual transcendence items were used. Results revealed that six out of the seven Elevation-Factor I items loaded on a single factor, whereas all three Elevation-Factor II items loaded on a single factor. With regard to the Spiritual Transcendence Subscale of Prayer Fulfillment, all of the 10 items that make up this sub-scale loaded on this component (item loadings ranged from 0.89 to 0.58).

Table 3. Summary of hierarchical regression analysis for personality domains and elevation in predicting self-reported prosocial behavior.

Variable	*B*	*SE B*	∃	*p*	R^2	ΔR^2	F_{Change}	*p*
Step 1					0.119	0.119	4.90	<0.001
N	0.00	0.07	0.00	0.968				
E	0.19	0.07	0.22	0.004				
O	0.17	0.07	0.19	0.012				
A	0.09	0.07	0.10	0.159				
C	0.04	0.08	0.04	0.597				
Step 2					0.166	0.047	10.27	<0.002
N		−0.02	0.07	−0.02	0.809			
E		0.13	0.07	0.15	0.047			
O		0.13	0.07	0.15	0.042			
A		0.06	0.07	0.07	0.345			
C		0.01	0.07	0.01	0.891			
ELEV. I		0.58	0.18	0.24	0.002			

Note: $N = 188$. N = Neuroticism, E = Extraversion, O = Open to Experience, A = Agreeableness, C = Conscientiousness, ELEV. I = Elevation-Factor I.

Six out of the seven items that make up the Universality sub-scale loaded on a component (item loadings ranged from 0.71 to 0.41, with two items having double loadings). The last component consisted of three items out of six from the Connectedness sub-scale (item loadings ranged from 0.80 to 0.76). Thus, the factor structure of the Spiritual Transcendence Scale was replicated. The second analysis (utilizing a varimax rotation) with the 20 prosocial items generated both elevation factors perfectly (seven out of seven Elevation-Factor I items and three out of three Elevation-Factor II items). Two additional pro-social factors were identified, but it was not apparent as to what each was capturing. (No literature was found that addresses the factor structure of the Self-report Altruism scale.) J.P. Rushton (personal communication, May 28, 2008) is unaware of any studies that have examined the factor structure of his scale. Furthermore, he pointed out that only one total score for the Pro-Social Behavior Scale is used in studies. These combined results provided evidence of the distinctiveness of elevation from spiritual transcendence and self-reported prosocial behavior. The testing of the hypotheses revealed, as predicted, spiritual transcendence and self-reported prosocial behavior both demonstrated positive and moderately strong correlations with Elevation-Factor I, $r(186) = 0.45$, $p < 0.001$ and $r(186) = 0.33$, $p < 0.001$, respectively. Spiritual transcendence was also correlated with Elevation-Factor II, $r(186) = 0.27$, $p < 0.001$, but not with prosocial behavior, $r(186) = 0.09$, *ns*.

Testing the incremental validity of elevation

For the analysis evaluating the last hypothesis (i.e., incremental validity), a series of hierarchical multiple regression analyses were conducted, with the self-reported prosocial score as the outcome. On step 1 of this analysis, the five personality domains from the NEO PI-R were entered as a block. On step 2, the Elevation-Factor I score was entered (forward entry). A partial *F* test was computed to determine if the increase in explained variance was significant. A summary of the hierarchical regression analysis can be found in Table 3. Elevation-Factor I provided an additional 4.7% $[\Delta F(1, 181) = 10.27, p < 0.002]$ of explained variance over the 11.9% $[F(5, 182) = 4.90, p < 0.001]$ provided by the personality domains. Using Hunsley and Meyer's (2007) adapted guideline, the incremental effect size of elevation represents a 39.5% increase in predictive power over that of the personality domains (4.7/11.9*100 = 39.5%). The above analysis was replicated using all 30 facets of the NEO PI-R. Results were similar to those found with the NEO PI-R domains. In particular, Elevation-Factor I provided an additional 4.2% $[\Delta F(1, 156) = 10.46, p < 0.001]$ of explained variance over the 33.7% $[F(30, 157) = 2.66, p < 0.001]$ provided by the 30 facets. The incremental effect size of elevation represents a 12.46% increase in predictive power over that of the personality facets. All of the above values remained relatively unchanged when the analysis was rerun while controlling for the total acquiescence response index. Elevation-Factor II did not provide any statistically significant explained variance in self-reported prosocial behavior beyond what the NEO PI-R domains and facets already accounted for.

In the next regression analysis, the ASPIRES total score was entered on the second step of the regression equation using the forced entry method and then on the third step Elevation-Factor I was entered via the forward entry method. A summary of the hierarchical regression analysis can be found in Table 4.

Table 4. A summary of hierarchical regression analysis for personality domains, spiritual transcendence, and Elevation-Factor I in predicting self-reported prosocial behavior.

Variable	*B*	*SE B*	∃	*p*	R^2	ΔR^2	F_{Change}	*p*
Step 1					0.119	0.119	4.90	<0.001
N	0.00	0.07	00	0.968				
E	0.19	0.07	0.22	0.004				
O	0.17	0.07	0.19	0.012				
A	0.09	0.07	0.10	0.159				
C	0.04	0.08	0.04	0.597				
Step 2					0.137	0.019	3.93	<0.049
N	−0.01	0.07	−0.01	0.885				
E	0.16	0.07	0.19	0.015				
O	0.16	0.07	0.17	0.019				
A	0.07	0.07	0.07	0.333				
C	0.00	0.08	0.00	0.999				
ASPIRES	0.11	0.06	0.15	0.049				
Step 3					0.170	0.032	7.03	<0.009
N	−0.02	0.07	−0.02	0.764				
E	0.13	0.07	0.15	0.060				
O	0.13	0.07	0.15	0.046				
A	0.05	0.07	0.06	0.438				
C	−0.01	0.08	−0.01	0.939				
ASPIRES	0.05	0.06	0.07	0.364				
ELEV. I	0.52	0.20	0.21	0.009				

Note: $N = 188$. N = Neuroticism; E = Extroversion; O = Openness to Experience; A = Agreeableness; C = Conscientiousness, ELEV. I = Elevation-Factor I.

The ASPIRES provided an additional 1.9% [$\Delta F(1, 181) = 3.93, p < 0.049$] of explained variance over the 11.9% [$\Delta F(5, 182) = 4.90, p < 0.001$] provided by the personality domains. Elevation-Factor I provided an additional 3.2% ($\Delta F(1, 180) = 7.03$, $p < 0.009$) of explained variance over the 1.9% provided by spiritual transcendence and the 11.9% provided by the personality domains. The incremental effect size of elevation represents a 23.2% increase in predictive power over the personality domains and spiritual transcendence. As done before, an additional regression analysis was run with the 30 personality facets entered on the first step. The facets accounted for 33.7% [$F(30, 157) = 2.66, p < 0.001$] of the variance of the outcome measure, whereas spiritual transcendence added 2.1% [$\Delta F(1, 156) = 5.11, p < 0.03$] of the variance on step 2, and Elevation-Factor I added 3.0% [$\Delta F(1, 155) = 7.67, p < 0.006$] of the variance on the third step. The incremental effect size of elevation represents an 8.40% increase in predictive power over that of the personality facets and spiritual transcendence. All of the above values remained relatively unchanged when the analysis was rerun while controlling for the total acquiescence response index. Finally, all of the above analyses were run with Elevation-Factor II, and results revealed that this factor did not account for any additional explained variance in self-reported prosocial behavior.

Discussion

The present study sought to investigate the relation between elevation and spiritual transcendence, the various domains and facets of the FFM, and self-reported prosocial behavior. Prior to testing the hypotheses, a limited psychometric analysis of the elevation scale was undertaken given that reliability and validity data for this scale are limited. Although the study was not designed to establish the validity of the scale and took the validity of the scale at face value, a number of analyses added support to its validity. In particular, a principal component analysis clearly demonstrated that Haidt's elevation scale consists of two somewhat distinct factors. The first factor (Elevation-Factor I) which accounted for over 30% of the variance appears to be tapping the component of elevation that is associated with warmth, connectedness, openness, and loving feelings towards other people. In addition, gratitude appears to be a part of this component. The second factor (Elevation-Factor II), on the other hand, clearly taps the physiological aspects of elevation (i.e., getting choked up, feeling tingles or chills, and producing tears). The correlation between these two factors was moderate ($r = 0.39, p < 0.001$), reinforcing the view that the factors are related but also providing evidence of the unique aspects of the apparent elevation experience. Adequate levels of internal consistency (Cronbach alpha) were noted for the 7-item Elevation-Factor I

($\alpha = 0.80$) and for the 3-item Elevation-Factor II ($\alpha = 0.71$). Furthermore, the filler items appeared to be somewhat distinct from the regular items, suggesting that the participants were responding to the content of the items and not engaging in a response set.

A response set possibility was examined further by the creation of an acquiescence response index that revealed a weak relation between this index and both elevation factors and spiritual transcendence, while not being related to self-reported prosocial behavior. Thus, some of the variance of elevation may in fact be indicative of an acquiescence response set, but the clear majority of the variance appears to be free from this particular bias.

Further psychometric evidence for the potential usefulness of the elevation scale was shown with the results from a set of principal component analyses. In all three data reduction analyses, the items that made up the two elevation factors consistently emerged as distinct and separate factors from the personality domains and facets. The analyses were clear in showing that the elevation factors cannot be easily subsumed by the Five-Factor Model of Personality (or at least by the way the five domains and 30 facets of personality were measured in the current study). In addition to the above findings regarding the psychometric properties of the elevation scale, a large gender difference (effect sizes ranging from moderate to strong) occurred on both elevation factors. In each instance, women scored significantly higher on Elevation-Factor I and on Elevation-Factor II. These findings are consistent with the theorizing of Silvers and Haidt (2008) that elevation may involve underlying physiological systems that are part of the stress-related 'tend and befriend' response noted by Taylor et al. (2000) and to be more likely a characteristic response to stress by women. That is, for both the physiological and the warmth-connectedness factors women scored significantly higher than men. The current gender differences are consistent with the findings of Carlo, Koller, Eisenberg, Da Silva, and Frohlich (1996) who showed that women are more likely to display higher levels of empathy and helping behaviors than men.

The personality domains of Extraversion, Openness to Experience, Agreeableness, and 16 of the NEO PI-R facets were all significantly related to Elevation-Factor I, whereas these same variables were not related to Elevation-Factor II. (The limited number of variables associated with Elevation-Factor II is intriguing and is discussed below.) When looking at the zero-order correlations between Elevation-Factor I and the NEO PI-R facets, one begins to see some of the different components of elevation. The picture that emerges of a people who are high in Elevation-Factor I is the following (according to Costa & McCrae's [1992] description): They are warm, affectionate, friendly, genuinely like people, and tend to form close attachments to others. They tend to keep busy, have high energy levels, and tend to be socially ascendant. They are likely to experience such positive emotions as joy, happiness, love, and excitement, while being cheerful and optimistic. They are likely to have an appreciation for art and beauty, and are very receptive to their own inner feelings and emotions (often experiencing them more intensely than others). Moreover, they tend to be open-minded and entertain unconventional ideas. They view others as being honest and well-intentioned and worthy of being helped (easily being moved by the needs of others). They would rather forgive and forget than to maintain interpersonal conflict. Finally, they feel well prepared to deal with life and tend to set high aspiration levels with a commitment and motivation to work hard in order to achieve their goals. When looking at the specific facets that were related to Elevation-Factor I (while statistically controlling for the presence of the other facets), we find that the main contributors came from: Extraversion–Warmth and Extraversion–Excitement Seeking; Openness to Experience–Aesthetics and Openness to Experience–Values (neg); Agreeableness–Tender-Mindedness; and Conscientiousness–Order (neg). The two facets of Warmth and Tender-Mindedness are easily connected with elevation, whereas the negative values of the facets of Values and Order are not easily explained and will require additional research. Surprisingly, the FFM of personality utilizing the five domains accounted for only 16% of variation in Elevation-Factor I, whereas the 30 personality facets accounted for 38% of variation in Elevation-Factor I, clearly suggesting that aspects of elevation are related to personality characteristics, but cannot be subsumed under the personality umbrella.

Consistent with Algoe and Haidt's (2008) findings that elevation was associated with self-reported motivations to do good things for other people, to a greater extent than joy or amusement, individuals in the current study who reported higher levels of Elevation-Factor I were more likely to report higher levels of prosocial behavior. The incremental validity of Elevation-Factor I as a unique predictor of self-reported prosocial behavior capable of accounting for variance beyond that of the FFM of personality (Domains and Facets) was examined. The results demonstrated that Elevation-Factor I accounted for 4.7% of additional variance above and beyond that of the 11.9% initially provided by the domains of the FFM (when the facets were used the percentages were 4.2% and 33.7%, respectively). These results add to the evidence that Elevation-Factor I may have validity in its own right.

A plausible alternative hypothesis to elevation as an emotion could be that such a state could be a function of an individual's level of spirituality.

Warm, positive feelings of moral virtue and beauty could arguably be tapping into an individual's feeling of connectedness with his or her fellow humans and/or some higher power. This is precisely why a measure of spiritual transcendence was included. In the first regression analysis, spiritual transcendence accounted for an additional 1.9% of the variance beyond the five domains of the FFM (2.1% when the 30 facets were used), with elevation accounting for an additional 3.2% (3.0% when the facets were used). This provides further evidence that elevation may in fact be a unique construct and in part different from an individual's level of spiritual transcendence. If Piedmont (1999a) is correct about spiritual transcendence being the sixth factor of personality, then the current findings may be opening the door for the recognition of the importance of elevation as a possible motivational trait, a sentiment, or a new aspect or dimension of an individual's personality. Future research should continue to examine the discriminant, convergent, and nomological validity of elevation within the framework of positive psychology and the FFM.

The fostering of positive emotions and their broad-reaching benefits to individuals (Fredrickson & Joiner, 2002), to their perceptions of and identification with others (Johnson & Fredrickson, 2005), and to their attentiveness to the world around them (Wadlinger & Isaacowitz, 2006) have been well documented. In this data set, it appears that an individual's experience of one such positive 'emotion,' Elevation-Factor I, may partially account for his or her propensity toward acting prosocially. By witnessing the virtuous actions of others, individuals potentially experience positive feelings and may subsequently be more likely to engage in prosocial behavior themselves. In short, individuals who 'see good' and 'feel good' may be subsequently more likely to 'do good.' Steger, Kashdan, and Oishi (2008) have recently offered evidence of the relation between prosocial behavior and psychological well-being, what they refer to as a being good by doing good model. What follows then is that a natural reciprocity between seeing good, feeling good, doing good, and being good may exist. The extent to which doing good extends to individuals outside of one's immediate social environment needs to be studied.

The emergence of two, somewhat distinct, factors of elevation and the relative lack of significant findings with the physiological factor is intriguing. Elevation-Factor I was consistently related to most of the variables studied and seems to suggest that observing acts of 'moral beauty' or 'moral goodness' may be followed by love towards, connection and affiliation with, and warmth towards others. Given the design of the current study, it is not clear whether there is any real action tendency from this experience. If not, then this aspect of elevation seems to fit more with Thrash and Elliot's 'inspired by' than with 'inspired to.' Elevation-Factor II (physiological response) was not related to self-reported prosocial behavior or any of the personality domains, whereas it was related two of the 30 personality facets (openness to feelings [+] and values [−]) and to spiritual transcendence. Although this factor was made up of only three items, the reliability index was quite acceptable (ruling out unreliability contributing to the lack of findings). The exact role that the physical sensations play in the connection of elevation to behaviors remains to be determined. Thus, Elevation-Factor II may be more closely tied to Thrash and Elliot's (2004) 'inspired by' and not 'inspired to.'

Clinical implications

Some interesting clinical implications result from this model. Consider that fatigue or lack of energy is a fundamental diagnostic criterion of depression (Beck, 1967). Further, Christensen and Duncan (1995) found that energy level was capable of accurately identifying clinically depressed individuals at a rate of 93%. It then may seem that such individuals would be less likely to receive the benefit of the 'doing good, being good' interaction. However, it may be possible to induce this state, creating a proverbial 'jump start' to positive well-being by exposing depressed clients to authentic, albeit controlled, acts of moral virtue or beauty.

Indeed, Seligman, Steen, Park and Peterson (2005) found that positive psychological interventions are capable of producing sustainable long-lasting effects that increase and maintain an individual's level of happiness while decreasing his or her level of depression. Similar results regarding the use of positive psychological interventions or positive psychotherapy in decreasing depression levels and increasing life satisfaction have also been demonstrated (Seligman, Rayshid, & Parks, 2006).

Limitations to the study

Assessment of elevation and the other measures in the current study were limited to a one-time snapshot. Measuring elevation across time periods (i.e., test–retest) along with behavior logs and observer ratings would provide us with some notion of elevation's (and the other constructs measured in the current study) stability and self-observer agreement. Observer ratings would provide a validity perspective of an individual's self-report and would provide a means of examining socially desirable responding. In addition, the observer ratings would provide, in their own right, information on the way that others perceive the individual. Furthermore, observer ratings could be combined

with self-reports to provide a potentially more accurate composite of the existence of elevation and other constructs measured in the current study (see Piedmont, McCrae, Riemann, & Angleitner, 2000). Such information would begin to address questions like: Are individuals who score high on the elevation scale seen by others as experiencing elevation? Is the experience of elevation something which is not publicly observable? Clearly, the current findings are limited by the validity of the self-reports of the participants and thus the findings might not generalize to actual behaviors. In addition, given that all of the constructs in the current study were assessed with self-reported measures, the issues of common method variance and the potential of socially desirable responding remain as plausible alternative explanations of the findings. The factor structure of the elevation scale also needs to be replicated. Elevation's position within causal models could be developed after extensive research is done on determining if it is a positive emotion, a personality dimension, or a more complex constellation of affect, cognition, and behavior. Experimental studies along with structural equation modeling would begin to provide a perspective on the potential causal directions among the variables studied. Further study of the two elevation factors and how they may differentially be related to action tendencies is warranted. Finally, future research should include a more economically and religiously diverse sample as well as a more equivalent male : female participant ratio.

Conclusions

Although elevation as a theoretical construct and psychological variable is relatively new, the awareness of its existence and its potential benefits to the individual and society is not. The results herein demonstrate the *possible* social benefit that feelings of elevation may have in potentially increasing the propensity of individuals to act prosocially. Beyond passive observance, nothing is required of an individual who witnesses an act of moral virtue or beauty. Individuals may benefit from looking for the moral beauty or virtue in the everyday. Such positive seeing (and the resultant feeling, thinking, and doing) may in fact play a vital role in one's movement toward well-being. Elevation's potential short- and long-term benefits to the individual and to society remain to be explored.

Notes

1. Factor loadings for all principal component analyses are available from the contact author.
2. A minimum factor loading of 0.40 was established as the criterion for an item to be loaded on a component and no item could load on more than one component. These criteria were used in all subsequent principal component analyses.

References

Algoe, S.B., & Haidt, J. (2008). Witnessing excellence in action: The 'other-praising' emotions of elevation, gratitude, and admiration. *Emotion*, *8*, 22–42.

Beck, A. (1967). *Depression*. New York: Harper and Row.

Carlo, G., Koller, S., Eisenberg, N., Da Silva, M., & Frohlich, C. (1996). A cross-national study on the relations among prosocial moral reasoning, gender role orientations, and prosocial behaviors. *Developmental Psychology, 32*, 231–240.

Christensen, L., & Duncan, K. (1995). Distinguishing depressed from nondepressed individuals using energy and psychosocial variables. *Journal of Consulting and Clinical Psychology, 63*, 495–498.

Costa Jr, P.T., & McCrae, R.R. (1992). *The NEO PI-R Professional Manual*. Odessa, FL: Psychological Assessment Resources.

Digman, J.M. (1990). Personality structure: Emergence of the Five-Factor Model. *Annual Review of Psychology, 41*, 417–440.

Fredrickson, B.L. (2001). The role of positive emotions in positive psychology: The Broaden-and-Build Theory of positive emotions. *American Psychologist, 56*, 218–226.

Fredrickson, B.L. (2005). The Broaden-and-Build Theory of positive emotions. In F.A. Huppert, N. Baylis, & B. Keverne (Eds.), *The science of well-being* (pp. 217–238). New York: Oxford University Press.

Fredickson, B.L., & Branigan, C. (2005). Positive emotions broaden the scope of attention and thought-action repertoires. *Cognition and Emotion, 19*, 313–332.

Fredrickson, B.L., & Joiner, T. (2002). Positive emotions trigger upward spirals toward emotional well-being. *Psychological Science, 13*, 172–175.

Fredrickson, B.L., & Losada, M.F. (2005). Positive affect and the complex dynamic of human flourishing. *American Psychologist, 60*, 678–686.

Gable, S.L., & Haidt, J. (2005). What (and why) is positive psychology? *Review of General Psychology, 9*, 103–110.

Gorsuch, R.L. (1988). Psychology of religion. *Annual Review of Psychology, 39*, 201–221.

Haidt, J. (2000, March). The positive emotion of elevation. *Prevention and Treatment*, *3*, Article 0003c/. Retrieved July 25, 2005, from http://journals.apa.org/prevention/volume3/pre0030003c.html

Haidt, J. (2003). Elevation and the positive psychology of morality. In C.L. Keyes, & J. Haidt (Eds.), *Flourishing: Positive psychology and the life well-lived* (pp. 275–289). Washington, DC: American Psychological Association.

Hsu, L.M. (1986). Implications of differences in elevations of K-corrected and non-K-corrected MMPI T scores. *Journal of Consulting and Clinical Psychology, 54*, 552–557.

Hunsley, J., & Meyer, G.J. (2007). The incremental validity of psychological testing and assessment: Conceptual, methodological, and statistical issues. *Psychological Assessment, 15*, 446–455.

Jefferson, T. (1975). Letters of Robert Skipwith. In M.D. Peterson (Ed.), *The portable Thomas Jefferson*

(pp. 349–350). New York: Penguin, (Original work published 1771).
Johnson, K., & Fredrickson, B.L. (2005). 'We all look the same to me': Positive emotions eliminate the own-race bias in face recognition. *Psychological Science, 16*, 875–881.
Keltner, D., & Haidt, J. (2003). Approaching awe: A moral, spiritual, and aesthetic emotion. *Cognition and Emotion, 17*, 297–314.
Kozma, A., & Stones, M.J. (1987). Social desirability in measures of subjective well-being: A systematic evaluation. *Journal of Gerontology, 42*, 56–59.
Leyens, J.P., Paladino, P.M., Rodriguez-Torres, R., Vaes, J., Demoulin, S., Rodriguez-Perez, A., et al. (2000). The emotional side of prejudice: The attribution of secondary emotions to ingroups and outgroups. *Personality and Social Psychology Review, 4*, 186–197.
McCrae, R.R. (1986). Well-being scales do not measure social desirability. *Journal of Gerontology, 41*, 390–393.
McCrae, R.R. (2001). Traits through time [Comment]. *Psychological Inquiry, 12*, 85–87.
McCrae, R.R., & Costa, P.T. (1983). Social desirability scales: More substance than style. *Journal of Consulting and Clinical Psychology, 51*, 882–888.
Ortony, A., Clore, G.L., & Collins, A. (1988). *The cognitive structure of emotion*. New York: Cambridge University Press.
Paulhus, D.L. (1991). Measurement and control of response bias. In J.P. Robinson, P.R. Shaver, & L.S. Wrightsman (Eds.), *Measures of personality and social psychological attitudes* (pp. 17–59). New York: Academic Press.
Piedmont, R.L. (1998). *The Revised NEO Personality Inventory: Clinical and research applications*. New York: Plenum Press.
Piedmont, R.L. (1999a). Does spirituality represent the sixth factor of personality? Spiritual transcendence and the Five-Factor Model. *Journal of Personality, 67*, 985–1014.
Piedmont, R.L. (1999b). Strategies for using the Five-Factor Model of Personality in religious research. *Journal of Psychology and Theology, 27*, 338–350.
Piedmont, R.L. (2004). Assessment of spirituality and religious sentiments: Manual. Baltimore: Author.
Piedmont, R.L., & Leach, M.M. (2002). Cross-cultural generalizability of the Spiritual Transcendence Scale in India. *American Behavioral Scientist, 45*, 1888–1901.
Piedmont, R.L., McCrae, R.R., & Costa, P.T. Jr (1992). As assessment of the Edwards Personal Preference Schedule from the perspective of the Five-Factor Model. *Journal of Personality Assessment, 58*, 67–78.
Piedmont, R.L., McCrae, R.R., Riemann, R., & Angleitner, A. (2000). On the invalidity of validity scales: Evidence from self-reports and observer ratings in volunteer samples. *Journal of Personality and Social Psychology, 78*, 582–593.
Rushton, J.P., Chrisjohn, R.D., & Fekken, G.C. (1981). The altruistic personality and the Self-Report Altruism Scale. *Personality and Individual Differences, 2*, 293–302.
Ryff, C.D., & Singer, B. (1998). The contours of positive human health. *Psychological Inquiry, 9*, 1–28.
Seligman, M.E.P. (2000). Positive psychology. In J.E. Gillham (Ed.), *The science of optimism and hope: Research essays in honor of Martin E.P. Seligman* (pp. 415–429). West Conshohocken, PA: Templeton Foundation Press.
Seligman, M.E.P. (2002). Positive psychology, positive prevention, and positive therapy. In C.R. Snyder, & S.J. Lopez (Eds.), *Handbook of positive psychology* (pp. 3–8). New York: Oxford University Press.
Seligman, M.E.P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist, 56*, 5–14.
Seligman, M.E.P., Rayshid, T., & Parks, A.C. (2006). Positive psychotherapy. *American Psychologist, 61*, 774–788.
Seligman, M.E.P., Steen, T.A., Park, N., & Peterson, C. (2005). Positive psychology progress: Empirical validation of interventions. *American Psychologist, 60*, 410–421.
Silvers, J., & Haidt, J. (2008). Moral elevation can induce nursing. *Emotion*, *8*, 291–295.
Steger, M.F., Kashdan, T.B., & Oishi, S. (2008). Being good by doing good: Daily eudaimonic activity and well-being. *Journal of Research in Personality*, *42*, 22–42.
Stein, N.L., & Oatley, K. (1992). Basic emotions: Theory and measurement. *Cognition and Emotion, 6*, 161–168.
Taylor, S.E., Klein, L.C., Lewis, B.P., Gruenewald, T.L., Gurung, R.A., & Updegraff, J.A. (2000). Biobehavioral responses to stress in females: Tend-and-befriend, not fight-or-flight. *Psychological Review, 107*, 411–429.
Thrash, T.M., & Elliot, A.J. (2003). Inspiration as a psychological construct. *Journal of Personality and Social Psychology, 84*, 871–889.
Thrash, T.M., & Elliot, A.J. (2004). Inspiration: Core characteristics, component processes, antecedents, and function. *Journal of Personality and Social Psychology, 87*, 957–973.
Van Wicklin, J.F. (1990). Conceiving and measuring ways of being religious. *Journal of Psychology and Christianity, 9*, 27–40.
Wadlinger, H.A., & Isaacowitz, D.M. (2006). Positive mood broadens visual attention to positive stimuli. *Motivation and Emotion, 30*, 89–101.
Watson, D. (2002). Positive affectivity: The disposition to experience pleasurable emotional states. In C.R. Snyder, & S.J. Lopez (Eds.), *Handbook of positive psychology* (pp. 106–119). New York: Oxford University Press.