

Engagement With Beauty: Appreciating Natural, Artistic, and Moral Beauty

RHETT DIESSNER
REBECCA C. SOLOM
NELLIE K. FROST
LUCAS PARSONS
Lewis-Clark State College

JOHN DAVIDSON
University of Tasmania

ABSTRACT. The Engagement With Beauty Scale (EBS), designed from the aesthetics of I. Kant (1790/1987), G. W. F. Hegel (ca. 1835/1993), and T. Aquinas (ca. 1260/1947) and the psychological work of J. Haidt (J. Haidt & D. Keltner, 2004), measures engagement with natural, artistic, and moral beauty. In Studies 1 and 2, the authors describe scale construction, exploratory factor analysis, confirmatory factor analysis, internal consistency, and temporal stability. In Studies 1 and 2, the authors also establish concurrent validity with the Appreciation of Beauty and Excellence subscale of the Values in Action Inventory of Strengths (C. Peterson & M. E. P. Seligman, 2004), the Gratitude, Resentment, and Appreciation Test (P. C. Watkins, K. Woodward, T. Stone, & R. L. Kolts, 2003), and the Spiritual Transcendence Scale (R. L. Piedmont, 2004). In Study 3, the authors used the EBS Artistic Beauty subscale to differentiate students engaged in the arts from those who were not.

Keywords: appreciation, artistic beauty, engagement, moral beauty, natural beauty

THE THREE CLASSICAL ENDS OF HUMAN BEING, as elucidated in Western philosophy since at least the time of Socrates, are truth, beauty, and the good (Plato, trans. 1937; viz. *The Republic*, Book VI, 505b–508e), and these three foci continue to inform human consciousness, reflections on the purpose of life, and pedagogical design (cf. Gardner, 1999). Poets and philosophers have frequently

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Address correspondence to Rhett Diessner, Department of Psychology, Lewis-Clark State College, Lewiston, ID 83501, USA; diessner@lcsc.edu (e-mail).

written about the relations and unity among truth, beauty, and the good. Witness Keats' (1819/1967) famous line, "Beauty is truth, truth beauty" (p. 295; cf. Reber, Schwarz, & Winkielman's [2004] hypothesis that the same psychological processes underlie judgments of truth and beauty). Granted, the meanings attached to concepts such as truth, beauty, and the good have been radicalized, subjectivized, relativised, and deconstructed in the last century; nonetheless, they continue to have a powerful influence over human beings.

Philosophical Approaches to the Appreciation of Beauty

Throughout the course of Western history, philosophers have argued for the centrality and importance of beauty (e.g., Aristotle, ca. 340 BCE/2002 CE; Augustine, 400/1964; Dewey, 1934/1958; Ficino, ca. 1475/1964; Hegel, ca. 1835/1993; Kant, 1790/1987; Plotinus, ca. 250/1964; Santayana, 1896/1961; Schopenhauer, 1819/1969; Aquinas, ca. 1260/1947). Aesthetics are highly valued in many, if not all, cultures (Brown, 1991, 2000), and as Haidt and Keltner (2004) wrote, "every culture has standards of beauty" (p. 550), albeit those standards vary greatly across cultures. Experiencing elements of nature as beautiful may have evolutionary roots in the dawn of humanity's development. Noticing something as beautiful appears to have adaptive or survival value (Averill, Stanat, & More, 1998; Etcoff, 2000; Richards, 1998). Artifacts from many, if not most, ancient cultures show ornamentation that appears to be at least partially an artistic effort to beautify the object.

Western philosophers have focused more on the beauty in art than on the beauty in nature, but philosophers have addressed beauty in nature as well (Beardsley, 1975; Croce, 1902/1960; Hofstadter & Kuhns, 1964; Mothersill, 1984; Santayana, 1896/1961; Sheppard, 1987). Kant was emphatic about differentiating a love of natural beauty from a love of artistic beauty (as cited in Baxley, 2005; Eaton, 1999; McCloskey, 1987). Kant argued that love of the beautiful in art provided no evidence that a person was inclined to be a good human being, yet he thought that an interest in the beauty of nature was always a sign of a "good soul" (1790/1987, p. 165). In the next generation of transcendental philosophy, Hegel disagreed with Kant and considered artistic beauty to be transcendently higher than natural beauty (Hegel, ca. 1835/1993; viz. p. 4). In this article, we do not attempt to determine whether Kant or Hegel was right, but we emphasize that the two major domains of natural beauty and artistic beauty have been the categories of beauty typically differentiated in Western philosophy.

Issues related to moral beauty, a third domain, often arise in the religious and spiritual contexts of ancient civilizations and are common in living religions (cf. Haidt & Keltner, 2004). Religious views of spirituality have had a large impact on the psychological development of humans over the last few millennia, although in the modern (postmodern) age, religion and, perhaps, spirituality appear to be diminishing in influence (cf. Myers, 2001). None-

theless, it seems likely that religion and spirituality will continue to exert an influence (Gallup & Bezilla, 1992) on what humans consider beautiful, both artistically (Dahl, 1984; Kandinsky, 1912/1947) and morally. Beauty, especially in the guise of the concept *glory*, has been an important concept in the sacred texts of most of humanity's regional and world religions and spiritual traditions. Glory and beauty have much conceptual overlap in sacred texts; *Merriam-Webster's Third New International Dictionary* (Gove, 1993) defines "glory: 4a(1): great beauty or splendor" (p. 967). A brief tour of quotations from some of the world's holy books indicates the importance that beauty has in religious (and perhaps spiritual) worldviews.

In the *Bhagavad-Gita* (Arjuna & Krishna, ca. 3000–400 BCE/2000 CE) of Hinduism is written, "Fain would I see, as thou Thyself declar'st it, Sovereign Lord! The likeness of that glory [great beauty] of Thy Form wholly revealed. O Thou Divinest One!" (chap. 11, no p.). From the *Psalms* (King David, ca. 950 BCE/n.d.) of Judaism, "Give unto the LORD the glory due unto his name; worship the LORD in the beauty of holiness" (*Holy Bible*, 29:2, King James version). In the Buddhist *Dhammapada* (Buddha, ca. 400–200 BCE/1993 CE), "At all times, by day and by night, the Buddha shines in his glory [great beauty]" (chap. 26, no p.). From the Christian *Bible*, "And the Word was made flesh, and dwelt among us, (and we beheld his glory [great beauty], the glory as of the only begotten of the Father,) full of grace and truth" (*John*, 1:14, King James version, ca. 50/n.d.). From the Muslim *Qur'án* (Muhammad, ca. 630/2000), "And he said, 'Truly do I love the love of good, with a view to the glory [great beauty] of my Lord'" (38:32). In the Bahá'í *Seven Valleys* (Bahá'u'lláh, ca. 1860/1978), "In every face, he seeketh the beauty of the Friend" (p. 7).

Besides notions of spiritual and moral beauty, religions have inspired great art in music, painting, and the gloriously beautiful architecture of many churches, temples, houses of worship, synagogues, and mosques; they are a great heritage of beauty to all humankind. These considerations suggest that the experience of engagement with beauty involves an expansion of consciousness that may be likened to a spiritual experience (cf. Mattis, 2004). We further considered this hypothesis in the development of the Engagement With Beauty Scale.

The Psychology of Appreciation of Beauty

Little empirical work in the field of psychology has focused on the understanding or perception of beauty, and the majority of published work is about cosmetic issues of human physical beauty. A notable exception is Rokeach's (1974) work on human values. He framed beauty (a world of beauty) as a human terminal value and found that Americans considered it to be among the least important of values in the late 1960s and early 1970s (Rokeach, 1974). Rokeach (1943, 1945) also performed pioneering research on the perceptions and correlates of physical beauty of American women. Maslow's (1964) work on the

peak experiences of self-actualizers included perceiving the world as beautiful. Maslow (1970) proposed that aesthetic needs to exist and may be met through beautiful surroundings and that beauty is a *B-value*—a value that may guide one's growth (one's being) toward wholeness.

Costa and McCrae (1992) framed openness to aesthetics as a specific trait within the broader trait of openness to experience and described it as “a deep appreciation for art and beauty. They are moved by poetry, absorbed in music, and intrigued by art” (p. 17). In this trait tradition, and following the lead of Peterson and Seligman (2004; cf. Haidt & Keltner, 2004), we view appreciation of beauty as a character strength, a “psychological ingredient” of the virtue of transcendence (Costa & McCrae, p. 13). Haidt and Keltner combined appreciation of beauty with appreciation of excellence and defined them together as “the ability to find, recognize, and take pleasure in the existence of goodness in the physical and social worlds” (p. 537). Haidt and Keltner's definition connects the good to beauty in a manner reminiscent of Aquinas (Beardsley, 1975; Ramos, 2004).

We find crucial importance in the concept of *moral beauty*, as research by Haidt (2000, 2002, 2003, 2006; Keltner & Haidt, 2003) has indicated that moral beauty is uniquely able to arouse the moral emotion of elevation. Haidt's (2002) research demonstrated that elevation is elicited by moral beauty; that is, observing humans manifest moral virtues in their behavior, “triggers a distinctive feeling in the chest of warmth and expansion; it causes a desire to become a better person oneself; and it seems to open one's heart, not only to the person who triggered the feeling but also to other people” (p. 864). Haidt (2002) noted that elevation shares with gratitude a sense of affection for the person who elicited the emotion, but its prosocial action tendencies go beyond gratitude's focus on one's benefactors to include a “generalized desire to become a better person oneself and to follow the example of the moral exemplar” (p. 864). Eco's (2004) observations on the history of beauty echoed Haidt's findings: “When we consider a virtuous deed to be good, we should like to have done it ourselves, or we determine to do something just as meritorious, spurred on by the example of what we consider to be good” (p. 8). Haidt's (2006) more recent work with his students also indicated that elevation may be associated with oxytocin and encourage feelings of love and bonding.

Pondering the concept of elevation may lead one to wonder about the difference between moral goodness and moral beauty. In general, whatever is morally good may be perceived as morally beautiful. Eco (2004), in his review of the history of beauty, noted, “It seems that what is beautiful is the same as what is good, and in fact in various historical periods there was a close link between the Beautiful and the Good” (p. 8). The psychological difference between perceptions of moral goodness and moral beauty is in emotional response and motivation. An observer may cognitively identify an act as one of moral goodness but remain unmoved and unelevated. If, however, one refers

to the same act of moral goodness as an act of moral beauty, it implies that the observer's emotions have been engaged by the morally good act and that he or she feels moved and elevated. Thus, objectively, moral goodness and moral beauty may refer to the same human act or virtue, but subjectively they differ. When observers refer to an act as one of moral beauty, they imply that their heart has been moved by that act. When one's emotions are activated by moral beauty, the conditions for elevation are created (viz. Algoe & Haidt, 2005; Haidt, 2003, 2006; Keltner & Haidt, 2003).

Problem Statement: Rationale for the Development of the Engagement With Beauty Scale

Haidt and Keltner (2004) noted, "There is at present no self-report measure of individual differences in appreciation of beauty and excellence" (p. 546). They are correct: There is no stand-alone measure of appreciation of beauty. There are, however, two established instruments that are related to the appreciation of beauty: the 10-item Appreciation of Beauty and Excellence (ABE) subscale of the 240-item Values in Action Inventory of Strengths (VIA-IS; Peterson & Seligman, 2004) and the Aesthetics facet of the Openness scale of the NEO Personality Inventory–Revised (NEO PI-R; Costa & McCrae, 1992). The ABE subscale of the VIA is not available as a short, independent measure but rather is embedded within the 240-item VIA scale online. The ABE is concerned with both beauty and excellence and is not devoted solely to beauty. The NEO PI-R is a relatively costly instrument to use and does not tap the important domains of natural or moral beauty. (Of the 8 questions on the Aesthetics facet, 7.5 refer to art [music, dance, poetry, art], and half of a question refers to patterns in nature.) Available information about the ABE of the VIA and NEO PI-R Aesthetics facet of Openness does not describe the content validity or construct validity of those measures on the basis of philosophical foundations or rationales. Thus, the key problem addressed in our research and reported in this article is that of designing a valid stand-alone measure of appreciation of and engagement with beauty that focuses exclusively on beauty, is relatively short, is easily available at no cost to researchers, and has content and construct validity founded on the philosophical distinctions and traditions of natural, artistic, and moral beauty (viz. Kant, 1790/1987; Hegel, ca. 1835/1993; & Aquinas, ca. 1260/1947; respectively). We have designed such an instrument, which we named the *Engagement With Beauty Scale* (EBS), and in the present studies we examined its reliability and validity.

Hypotheses

Our hypotheses are typical of instrument development: that the scores would demonstrate promising reliability and validity.

Hypothesis 1 (H₁): Scores on the EBS and its subscales will show moderate to strong internal consistency with two different samples of participants.

H₂: Scores on the EBS and its subscales will show moderate to strong temporal stability (test–retest reliability) with two different samples.

H₃: Exploratory and confirmatory factor analysis will reveal the EBS to have three correlated factors—representing natural beauty, artistic beauty, and moral beauty—consonant with the three subscales of the EBS.

H₄: The EBS will show positive, significant correlations with measures of gratitude, spiritual transcendence, and satisfaction with life; the EBS will show negative or no correlations with measures of materialism and depression.

H₅: The EBS will discriminate between known groups through its artistic beauty subscale.

STUDY 1: EXPLORATORY FACTOR ANALYSIS OF THE EBS

Our hypotheses in the initial study were that (a) the natural, artistic, and moral beauty subscales of the EBS would resolve, in principal components analysis, into distinct factors; (b) the EBS scores would demonstrate adequate internal consistency and test–retest reliability; and (c) the EBS would show concurrent validity by significantly correlating with the 10-item ABE subscale of Peterson and Seligman’s (2004) 240-item VIA-IS measure.

Method

Participants

Participants were a convenience sample of 122 undergraduates (72% women, 28% men) attending Lewis-Clark State College, a small college ($N = 3,300$) in Idaho, and enrolled in introductory, developmental, and educational psychology classes in December 2004. The mean age of participants was 23.7 years ($SD = 7.4$ years). In terms of ethnic and religious identification, 83% self-identified as White, and 86% self-identified as Christian. All participants completed the initial 5-point Likert version of the EBS.

Instruments

The EBS. On the basis of our review of the philosophy of categories of beauty, we created a 14-item instrument organized around the three domains of natural beauty, artistic beauty, and moral beauty (see the Appendix for the complete EBS). Each item is rated using a 5-point Likert scale ranging from 1 (*very unlike me*) to 5 (*very much like me*). In addition to the domains of the beautiful, we also considered the psychological processes by which humans encounter the beautiful

in designing items for the EBS. We focused on (a) perception or cognition (e.g., “I notice beauty”), (b) physiological arousal (e.g., “I feel a lump in my throat” or “an expansion in my chest”), (c) conscious emotion (e.g., “I feel emotional, it moves me”), and (d) transcendence or spirituality (e.g., “I feel a spiritual experience, a sense of oneness, or being united with the universe”). Thus, on the EBS each of the three domains (nature, art, and morality) had four parallel items tapping the aforementioned four processes (see the Appendix for the exact wording of these items). Further, on the basis of the work of Haidt and colleagues (Algoe & Haidt, 2005; Haidt, 2003, 2006; Haidt & Keltner, 2004; Keltner & Haidt, 2003), we added two additional items to the moral beauty subscale of the EBS.

Congruent with Haidt and Keltner’s (2004) view that appreciation is “*emotional* responsiveness, the tendency to experience at least subtle self-transcendent emotions such as awe, admiration, and elevation, triggered by the frequent perception of beauty and excellence in one’s surroundings” (p. 539), we focused on writing items for the EBS that tapped the feelings aroused when one is emotionally engaged with beauty. In fact, we named the scale *Engagement With Beauty* instead of *Appreciation of Beauty* because we feel the term *engagement* is more illustrative of the feelings aroused in the beauty experience than is the term *appreciation*. Haidt and Keltner also emphasized both the biological–emotional aspect of appreciation (e.g., lump in throat, dilated chest) and the conscious emotional feelings (e.g., awe, admiration, wonder), and we have represented those processes on the EBS (see Appendix). Also, because Kant (1790/1987; nature), Hegel (ca. 1835/1993; art), and Aristotle (ca. 340 BCE/2002 CE) and Aquinas (ca. 1260/1947; morality and virtues) all considered beauty to be a spiritual experience, we have included items on the EBS to reflect this spirituality.

The ABE. We used the 10-item ABE subscale from Peterson and Seligman’s (2004) 240-item VIA-IS questionnaire as a measure of concurrent validity. Peterson and Seligman reported the ABE subscale to have an α higher than .70 and a 4-month test–retest correlation of more than .70. In our study, the ABE had an α of .82.

Procedure

Students received extra course credit for completing the EBS and the ABE subscale of the VIA-IS (Peterson & Seligman, 2004) during class. The institutional review board at Lewis-Clark State College approved this study and all studies reported in this article; informed consent was obtained from all participants, and debriefing was offered.

Results

Following principal components analysis, the scree plot’s elbow leveled off after three components, and we only kept those with eigenvalues of 1.00 or higher (the

three had eigenvalues of 5.70, 2.04, and 1.08 and accounted for 40.7%, 14.6%, and 7.7% of the variance, respectively, for a total of 63%). The varimax rotation resolved into three components, with each component containing the particular EBS items hypothesized, thus serving as initial confirmation that items 1–4 form a Natural Beauty subscale, items 5–8 form an Artistic Beauty subscale, and items 9–14 form a Moral Beauty subscale (see Table 1). Corrected item-total correlations ranged from .42 to .64. Netemeyer, Bearden, and Sharma (2003) recommend item-total correlations in the .50–.80 range for retention, but we kept the four items that ranged from .42 to .48 to see how they would fare in the confirmatory factor analysis (CFA).

Cronbach's alphas were .90 for the total score on the EBS, .80 for the EBS Natural Beauty subscale, .87 for the EBS Artistic Beauty subscale, and .85 for the EBS Moral Beauty subscale. A subset of the participants ($n = 68$) completed the EBS a second time 1 week later, showing test–retest reliability of Pearson $r = .85$ for the total scale; $r = .84$ for the EBS Natural Beauty subscale, $r = .77$ for the EBS Artistic Beauty subscale, and $r = .61$ for the EBS Moral Beauty subscale.

The ABE showed correlations of $r = .80$ with EBS total score, $r = .76$ with the EBS Natural Beauty subscale, $r = .66$ with the EBS Artistic Beauty subscale, and $r = .55$ with the EBS Moral Beauty subscale ($ps < .001$).

TABLE 1. Exploratory Factor Analysis Varimax-Rotated Component Matrix

Item	Component		
	1	2	3
1	.125	.221	.689
2	.299	.199	.671
3	.163	.350	.790
4	.294	.309	.637
5	.080	.755	.220
6	.139	.776	.258
7	.164	.862	.250
8	.142	.801	.193
9	.683	.023	.184
10	.757	.313	.148
11	.791	.278	.101
12	.739	.313	.061
13	.676	–.038	.430
14	.692	–.060	.275

Note. Extraction method: principal component analysis. Rotation method: varimax with Kaiser normalization. Bolding indicates the heaviest loadings of the three subscales of the Engagement With Beauty scale (EBS; EBS Natural Beauty subscale = items 1–4; EBS Artistic Beauty subscale = items 5–8; EBS Moral Beauty subscale = items 9–14).

We found no gender difference in this sample. Men ($M = 54.3$, $SD = 6.94$) and women ($M = 55.1$, $SD = 8.70$) did not differ in their EBS total scores, $t(120) = .447$ ($p = .66$, two-tailed).

Discussion

Although it is unusual, we did not add or delete any items on the EBS after conducting the EFA. Prior to the CFA, we changed the EBS's 5-point Likert scale to a 7-point scale (adding the options *a little unlike me* and *a little like me*), because the participants' average scores were above the arithmetic midpoint of the scale. That is, because the EBS has 14 items, the arithmetic average on a 5-point scale would be a raw score of 42 (3×14). However, the actual average raw score in this initial study was 55 ($SD = 8.2$). Therefore, to increase the sensitivity of the instrument and minimize the ceiling effect seen with the 5-point scale, we increased the response range to a 7-point Likert scale.

This initial study of the psychometric properties of the EBS showed promise. The measures of reliability, the internal consistency, and the results of the test-retest study were all moderately high, giving us confidence in the EBS and laying a foundation for validity studies.

The correlation between the ABE subscale of the VIA-IS (Peterson & Seligman, 2004) and the EBS indicates that they measure something quite similar. This lends concurrent validity to the EBS. Ideally, the EBS would correlate highly enough with the ABE to show that if the ABE accurately measures appreciation of beauty, then so does the EBS. However, the correlation would also need to be low enough to indicate that the EBS measures something different from what the ABE measures, warranting the need for its creation. The correlation of .55 between the ABE and the EBS Moral Beauty subscale indicates that the inclusion of moral beauty items differentiates the EBS from the ABE to some degree. The overall high correlation between the ABE and the EBS shows that they are similar enough to be used as alternate forms in future research, giving the advantage of eliminating any practice effect in appreciation-of-beauty intervention research designs using a pretest and a posttest.

The exploratory factor analysis (EFA) was encouraging and indicated that it is reasonable to consider the three subscales of the EBS (Natural Beauty, Artistic Beauty, Moral Beauty) as distinct factors. Likewise, although not perfect, the corrected item-total correlations on the EBS showed enough promise to warrant a CFA with a new sample of participants without adding or deleting items.

STUDY 2: CFA OF AND CONCURRENT CORRELATIONS WITH THE EBS

Consonant with best practices for instrument development, we followed the EFA with a CFA using a new, larger, and more diverse sample of participants.

Thus, the first purpose of Study 2 was to use the CFA to further refine and validate the three-factor structure of the EBS that was demonstrated in the EFA. To increase confidence in the reliability of the EBS scores, we again examined the internal consistency and test–retest reliability of the EBS scores with the new sample.

The second purpose of Study 2 was to further examine the concurrent validity of the EBS through correlations with relevant instruments. We predicted medium to high positive relations with the cognate measures of gratitude and spiritual transcendence, a low positive relation with satisfaction with life, and low negative relations with material values and depression. Haidt and Keltner (2004; Keltner & Haidt, 2003) predicted a relation between gratitude and appreciation of beauty and excellence, and Gibling, Watkins, Mathews, and Kolts (2004) showed that aesthetic experience enhances gratitude. Likewise, Haidt and Keltner predicted that spiritual transcendence and appreciation of beauty would positively correlate because both involve experiences of transcendence. Previous research was equivocal on the relation between appreciation of beauty and satisfaction with life (Isaacowitz, Vaillant, & Seligman, 2003; Park, Peterson, & Seligman, 2004). Because we hypothesized that appreciating beauty would add to satisfaction with life, we anticipated a small, positive, significant correlation between the two. We also predicted, as did Haidt and Keltner, that appreciation of beauty would negatively correlate with materialism, on the basis of the negative correlation between materialism and gratitude found by McCullough, Emmons, and Tsang (2002). We also predicted that depression and appreciation of beauty would be negatively correlated.

Method

Participants

Participants were a convenience sample of 206 students (58% women, 42% men) drawn from several courses (psychology, natural science, education, humanities, and art classes) at Lewis-Clark State College in April 2005. None of the participants in Study 2 had participated in Study 1. Participants' age ranged from 16 to 47 years ($M = 23.7$ years, $SD = 7.7$ years). In terms of ethnicity, 77% were White, 6% were Asian, 6% were Latino, and 5% were African American or Caribbean. The most common religious identifications were 78% Christian, 7% agnostic, and 5% Muslim.

Instruments

As in Study 1, participants completed the EBS, but they responded to each item on a 7-point Likert scale, as shown in the Appendix.

Gratitude. We measured participants' levels of gratitude with the Gratitude, Resentment, and Appreciation Test (GRAT; Watkins, Woodward, Stone, & Kolts, 2003), using the revised short form (Thomas & Watkins, 2003). The GRAT is scored on a 5-point Likert scale and has good internal consistency and temporal stability, as well as a variety of predictive and concurrent validities. The short form of the GRAT has demonstrated an α of .92 (Thomas & Watkins; in the present study, $\alpha = .87$). The GRAT has subscales for measuring (a) Lack of a Sense of Deprivation (or Sense of Abundance; $\alpha = .80$ in the present study), (b) Appreciation for Simple Pleasures ($\alpha = .76$ in the present study), and (c) Social Appreciation ($\alpha = .75$ in the present study).

Satisfaction with life. The Satisfaction With Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) consists of 5 items scored on a 7-point Likert scale, created to reflect life satisfaction and well-being as a whole. It has good internal consistency ($\alpha = .87$) and temporal stability (2-month test-retest = .82) and has been validated through a wide range of studies (Pavot & Diener, 1993).

Spiritual transcendence. We assessed participants' levels of spiritual transcendence with the Spiritual Transcendence Scale (STS; Piedmont, 1999, 2004), using the 9-item short form, which has been shown to have adequate internal consistency ($\alpha = .76$) and promising construct and predictive validity (French & Piedmont, 2004). According to Piedmont (1999), "Spiritual Transcendence refers to the capacity of individuals to stand outside of their immediate sense of time and place to view life from a larger, more objective perspective" (p. 988). Both the full scale STS and the short form have three subscales (Piedmont, 1999, 2004): (a) Prayer Fulfillment ($\alpha = .89$), which includes feelings of joy and contentment through a positive connection to a transcendent reality, (b) Universality ($\alpha = .59$), a belief in the unitive nature of and broad "meaning and purpose to life" (Piedmont, 2004, p. 5), and (c) Connectedness ($\alpha = .68$), which comprises feelings of responsibility and belonging to a larger human reality and in particular with the dead.

Materialism. We measured participants' levels of materialism using the short form of the Material Values Scale (MVS; Richins, 2004; Richins & Dawson, 1992). The MVS is scored on a 5-point Likert scale and has three factor-analytically confirmed subscales: (a) Acquisition Centrality (the centrality of material possessions in a person's life), (b) Success (using possessions to judge the success of one's life and others' lives), and (c) Happiness (possessions bring happiness and life satisfaction). Recent item-analysis studies and CFA show that a 15-item version (Richins) has better dimensional properties than the original 18-item MVS (Richins & Dawson) and similar internal consistency: the mean alpha for the 15-item MVS total score is .86, and the mean alphas for the subscales range from .67 to .78. The MVS has demonstrated a wide range of construct, predictive, and concurrent validity (Richins; Richins & Dawson).

Depression. The Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) is composed of 21 categories of symptoms and attitudes that manifest behaviorally in patients diagnosed with depression. Each category consists of a graded series of four self-evaluative statements ranked from 0 (*neutral*) to 3 (*maximum severity*) to reflect the range of severity of the symptom. The BDI showed relatively good stability, and the corrected split-half reliability coefficient was .93. Validity studies comparing psychiatric expert ratings with BDI scores were strong (Beck et al., 1961).

Procedure

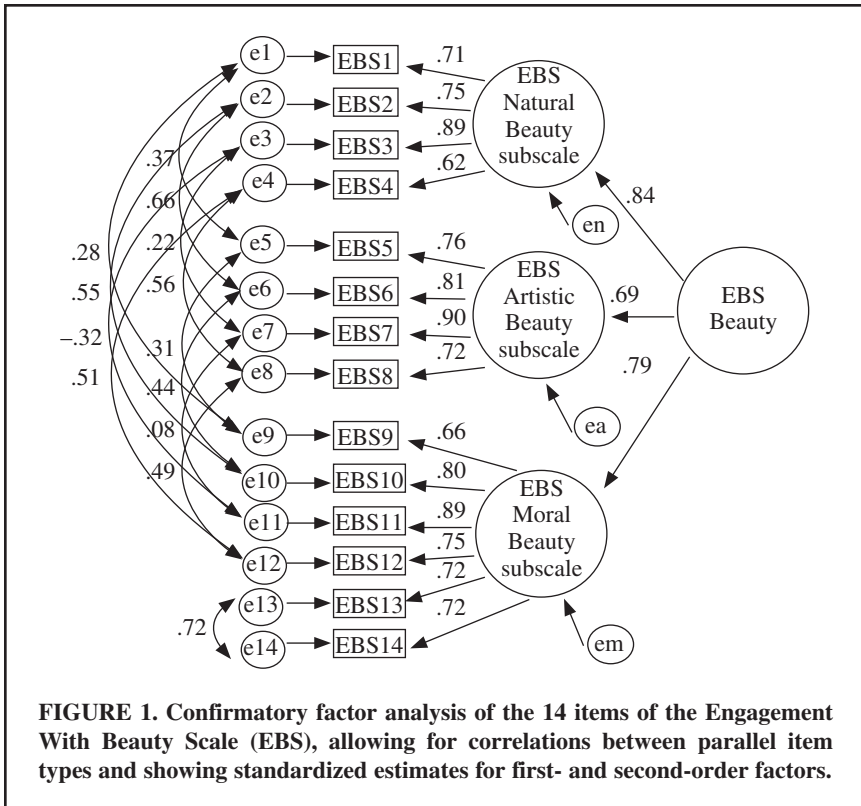
Students completed the EBS and several other measures in class for course credit. We gave a packet consisting of six measures (described in the Instruments section) and a demography form to 210 students. We created five random sequences of the six measures within the packets and randomly organized the sequence of packets to avoid any sequencing effects. Four of the packets returned were incomplete and were discarded. Of the remaining 206 participants, 23 skipped a total of 26 individual items on various scales. We retained these packets and substituted the average item scores for the missing item scores. The institutional review board at Lewis-Clark State College approved this study; informed consent was obtained from all participants, and debriefing was offered.

Results

The 7-point Likert scale used in this new sample offered a possible range of 14–98 on the EBS total score, with an actual range in this sample of 26–98 ($M = 68.7$, $SD = 15.5$). The Natural Beauty and Artistic Beauty subscales both had possible ranges of 4–28, with actual ranges of 4–28 ($M = 20.7$, $SD = 5.1$) and 4–28 ($M = 16.7$, $SD = 5.9$), respectively. The 6-item subscale of Engagement with Moral Beauty had a possible range of 6–42 and an actual range of 10–42 ($M = 31.4$, $SD = 7.4$).

On the basis of the results of the EFA, we fitted a 3-factor model using AMOS (Arbuckle & Wothke, 1995). We noted that thematic similarities occurred between items 1, 5, and 9 (noticing beauty), between items 2, 6, and 10 (physiological response), between items 3, 7, and 11 (emotional response), between items 4, 8, and 12 (spiritual experience), and between items 13 and 14 (change for the better). Accordingly, the model that we fitted allowed for significant correlations between the corresponding residuals, as shown in Figure 1.

Application of a generalized least squares CFA to the EBS data fitting a factor for each subscale produced a $\chi^2(61, N = 206) = 72.96$, $p = .140$, which indicated a satisfactory fit. Likewise, the root mean square error of approximation (RMSEA) was .031—less than the conventional benchmark of .08 for indicating



reasonable model fit (Wegener & Fabrigar, 2000). The goodness of fit index (GFI) was .949; the adjusted goodness of fit index (AGFI) was .912; and the comparative fit index (CFI) was .968. The GFI, AGFI, and CFI values all indicate that the 3-factor model of EBS was reasonable (Byrne, 2001). As allowed for in the model, there were significant positive correlations between residuals of thematically related items (with only three exceptions). The correlations between the factors were: natural and artistic beauty, $r = .61$; natural and moral beauty, $r = .65$; artistic and moral beauty, $r = .48$.

Following Byrne (2001), we fitted a further model with a single second-order factor to also explain the correlations between the three factors. (In Byrne's procedure, two of the residual variances for the factors are constrained to be equal. On the basis of the earlier analysis, we made the variances of the residuals for natural beauty and moral beauty equal to fit the model.) This model also had a satisfactory fit, $\chi^2(62, N = 206) = 76.51, p = .102, RMSEA = .034, GFI = .947, AGFI = .910, CFI = .962$. The full model with three first-order factors and a second-order factor is shown in Figure 1. The obtained loadings provide strong support for the proposed scale.

We also ran corrected item-total correlations with this sample, and they ranged from .53 to .69 for the 14 items; Netemeyer, Bearden, and Sharma (2003) recommended correlations in the .50–.80 range for retention of items. We also completed item-total correlations with each facet (subscale) of this multifaceted scale. Thus, we correlated each item with its corrected subscale total and also correlated each item with the total subscale scores of the other two subscales. Each of the 14 items of the EBS correlated more highly with its own corrected subscale total than with either of the other two subscale totals. Additionally, every item-to-subscale total correlation was within the .50–.80 range recommended by Netemeyer et al. (2003), except for item 11 on the EBS Moral Beauty subscale (see Appendix), which had a correlation of .81 with the EBS Moral Beauty subscale total.

The reliability of the scores on the EBS and its subscales appears acceptable. Cronbach's alphas were .91 for the EBS total score, .80 for the Natural Beauty subscale, .88 for the Artistic Beauty subscale, and .89 for the Moral Beauty subscale. An $n = 52$ subset of the participants completed the EBS a second time, 3 weeks after the initial administration. This revealed test–retest reliabilities, based on Pearson's r , of .79 for the total EBS, .79 for the Natural Beauty subscale, .77 for the Artistic Beauty subscale, and .67 for the Moral Beauty subscale. We anticipated higher temporal stability because we view appreciation of beauty as a trait (Peterson & Seligman, 2004). However, we also consider engagement with beauty to be strongly emotionally based (as did Haidt & Keltner, 2004), and because emotions tend to fluctuate, perhaps the .68–.76 correlations for the reliability of the scores on the subscales are reasonable.

Although the EBS showed no significant differences by gender in our initial sample, with this sample, a gender difference reached significance on the EBS total score, with women ($M = 70.5$, $SD = 15.3$) scoring higher on the EBS total score than did men ($M = 66.1$, $SD = 15.4$), $t(203) = 1.99$, $p = .048$ (two-tailed); the effect size was small, with $\eta^2 = .019$. This is congruent with Haidt and Keltner's (2004) review of gender and appreciation of beauty and excellence, which indicated that women might score somewhat higher on appreciation and related transcendent constructs. There also was a small developmental influence shown in this study: Age and EBS total score were correlated at $r = .24$ ($p < .001$); age and the Natural Beauty subscale at $r = .25$ ($p < .001$); age and the Artistic Beauty subscale at $r = .15$ ($p < .04$); and age and the Moral Beauty subscale at $r = .21$ ($p < .004$; all two-tailed).

Concurrent Correlations With Relevant Instruments

Correlations among the various scales, EBS subscales, and EBS total are shown in Table 2. There were substantial and significant positive correlations between the EBS and its subscales and the gratitude and spiritual transcendence measures. The correlation between the EBS and the SWLS was low and positive.

TABLE 2. Correlations Between the Engagement With Beauty Scale (EBS) Total and Subscales Scores (Natural Beauty, Artistic Beauty, Moral Beauty) and Other Measures ($N = 206$)

Correlation	<i>t</i>	<i>df</i>	<i>r</i>	<i>p</i>	Unadjusted ^a	B-H critical ^b	B-H adjusted ^c
BDI × EBS Moral	0.86	204	-.06	.1958	<i>ns</i>	.0250	<i>ns</i>
BDI × EBS Total	1.73	204	-.12	.0429	*	.02375	<i>ns</i>
MVS × EBS Art	1.73	204	-.12	.0429	*	.0225	<i>ns</i>
BDI × EBS Nat	1.87	204	-.13	.0313	*	.02125	<i>ns</i>
BDI × EBS Art	2.02	204	-.14	.0224	*	.02	<i>ns</i>
MVS × EBS Moral	2.02	204	-.14	.0224	*	.01875	<i>ns</i>
SWLS × EBS Art	2.02	204	.14	.0224	*	.0175	<i>ns</i>
SWLS × EBS Moral	2.02	204	.14	.0224	*	.01625	<i>ns</i>
MVS × EBS Total	2.61	204	-.18	.0048	**	.015	*
SWLS × EBS Total	2.92	204	.20	.002	**	.0137	*
MVS × EBS Nat	3.07	204	-.21	.0012	**	.0125	*
STS × EBS Art	3.07	204	.21	.0012	**	.01125	*
SWLS × EBS Nat	3.38	204	.23	.0004	***	.01	*
GRAT × EBS Art	4.66	204	.31	.0001	***	.00875	*
STS × EBS Nat	5.69	204	.37	.0001	***	.0075	*
STS × EBS Moral	6.05	204	.39	.0001	***	.00625	*
STS × EBS Total	6.05	204	.39	.0001	***	.005	*
GRAT × EBS Moral	6.61	204	.42	.0001	***	.00375	*
GRAT × EBS Nat	7.4	204	.46	.0001	***	.0025	*
GRAT × EBS Total	7.61	204	.47	.0001	***	.00125	*

^aUnadjusted *p* values: **p* < .05. ***p* < .01. ****p* < .001. ^bBenjamini-Hochberg adjustment, critical values (Y. Benjamini & Y. Hochberg, 1995). ^cBenjamini-Hochberg adjustment: **p* < .05. BDI = Beck Depression Inventory (A. T. Beck, C. H. Ward, M. Mendelson, J. Mock, & J. Erbaugh, 1961). MVS = Material Values Scale (M. L. Richins, 2004; M. L. Richins & S. Dawson, 1992). SWLS = Satisfaction with Life Scale (E. Diener, R. A. Emmons, R. J. Larsen, & S. Griffin, 1985). STS = Spiritual Transcendence Scale (R. L. Piedmont, 1999, 2004). GRAT = Gratitude, Resentment, and Appreciation Test (P. C. Watkins, K. Woodward, T. Stone, & R. L. Kolts, 2003).

We obtained low, significant negative correlations between the MVS and the EBS and obtained low, nonsignificant correlations with the BDI.

Discussion

The CFA confirmed the initial findings of the EFA, that the Natural Beauty, Artistic Beauty, and Moral Beauty subscales of the EBS do represent three factors. Therefore, because the chi-square test and *RMSEA* were consistent with a reasonable fit, the other fit indexes were acceptable, and the item-total correlations were within the desired range, we did not propose adding any items to or deleting any from the EBS or its subscales. As in Study 1, this study confirmed that the EBS and its subscales are reliable, on the basis of Cronbach's alpha and the test-retest values.

The correlational findings reported in Table 2 indicate strong concurrent validity for the EBS and are consistent with our predictions, the conceptualization of the scales, and previous research. These results indicate that as levels of engagement with beauty increase, a person's trait of gratitude grows stronger, spiritual transcendence grows loftier, and life is more satisfying in general. Also, as predicted, the higher is the level of engagement with beauty, the less likely a person is to be materialistic.

Because depression may involve an immoderate degree of focus on self and transcendental character strengths tend to lift one out of the self (Peterson & Seligman, 2004, consider appreciation of beauty to be one of the transcendental character strengths), we hypothesized that the EBS would negatively correlate with depression as measured by the BDI. The EBS total score and two of the EBS subscales correlated negatively with the modified BDI, and the unadjusted *p* values were significant. Once the Benjamini-Hochberg adjustment (Benjamini & Hochberg, 1995) was applied, however, this correlation was nonsignificant (see Table 2).

It is notable that the Natural Beauty subscale correlated more with every associative measure (gratitude, satisfaction with life, and spiritual transcendence) and less with the dissociative comparative measure (materialism) than did the Artistic Beauty subscale (see Table 2). This may indicate that Kant was right, that the good soul is more appreciative of and engaged with natural beauty than with artistic beauty. That is, engagement with natural beauty correlates more with being grateful, satisfied with one's life, spiritually transcendent, hopeful, and less materialistic.

STUDY 3: ARTISTIC BEAUTY AND KNOWN GROUPS

We presumed that students who electively enroll in art and music classes constitute a group known to be more appreciative of beauty than do students who do not enroll in such classes. We hypothesized that art and music students would score significantly higher on the EBS Artistic Beauty subscale than would

comparison students who were education and psychology majors. We also hypothesized that education and psychology majors would score higher on the Moral Beauty subscale than would art and music students. Our reasoning for this was that the work of psychology and education majors is focused directly on human beings, and thus they might be more sensitive to the inner beauty of humans than would art and music students, whose work tends to be focused on visual and acoustic patterns.

Method

Participants

The known group comprised a convenience sample of 26 students (70% women, 30% men) who electively enrolled in one of three applied art and music classes at Lewis-Clark State College. The mean age of this group was 28.0 years ($SD = 11.9$ years; range = 19–68 years). Of the participants, 3.8% were Asian, 84.6% were White, 7.7% were Latino, and 3.8% were Native American. Regarding religious preference, 46% considered themselves Christians, 19% were agnostic, 8% were atheist, 15% marked *other*, and 12% marked *none*. The comparison group consisted of 32 students (72% women, 28% men) in a developmental psychology class. No students in that class had ever taken an elective art or music class in college. The mean age of the comparison group was 23.0 years ($SD = 6.8$ years; range = 18–40 years). Of the participants, 87.5% were White, 3.1% were Latino, 6.3% identified themselves as *mixed*, and 3.1% were Native American. Regarding religious preference, 3.1% were Buddhist, 84.4% were Christian, 6.3% were agnostic, 3.1% were atheist, and 3.1% marked *other*.

Instrument and Procedure

The instrument we used was the EBS (see Appendix). The students completed the EBS in class for extra course credit. The institutional review board at Lewis-Clark State College approved this study; informed consent was obtained from all participants, and debriefing was offered.

Results

A t test revealed a significantly higher EBS Artistic Beauty subscale score, $t(56) = -3.07$, $p = .003$, for the art and music students ($M = 15.7$, $SD = 2.3$) than for the comparison group ($M = 13.2$, $SD = 3.6$); this difference showed a large effect size, $\eta^2 = .14$. Although the education and psychology majors in the comparison group did score slightly higher ($M = 24.6$, $SD = 3.9$) on the Moral Beauty subscale than did the art and music students ($M = 23.9$, $SD = 3.8$), the t test indicated no significant difference; likewise, neither the EBS total score nor

the EBS Natural Beauty subscale score showed a significant difference between groups. With a Benjamini-Hochberg adjustment (Benjamini & Hochberg, 1995) accounting for running the four *t* tests, the difference between the art and music students and the comparison group remained significant (Benjamini-Hochberg critical value was $p = .00625$).

Discussion

As anticipated, the findings of Study 3 indicate that the EBS is effective in differentiating a known group of art appreciators from a group with no particular reason to be highly engaged in artistic beauty, thus adding to the predictive validity of the EBS Artistic Beauty subscale. However, we also anticipated that the psychology and education majors would show higher engagement with moral beauty than would the art and music students, and this was not demonstrated. This may be ethically good news concerning persons who are engaged by artistic beauty: art majors and lovers of art see just as much moral beauty around them as do education or psychology majors. We had anticipated that psychology and education majors, whose course work is and life's work will be focused on the development of human beings, would be the most sensitive to the perception of humans' inner beauty. However, the evidence does not support this hypothesis.

GENERAL DISCUSSION

Our goal in this article was to examine the reliability and validity of the scores of the EBS, a new scale for measuring appreciation of and engagement with beauty. On the basis of philosophical works from Aristotle (ca. 340 BCE/2002 CE), Kant (1790/1987), Hegel (ca. 1835/1993), Aquinas (ca. 1260/1947), and others, we divided the beauty domain into the three subdomains of natural, artistic, and moral beauty and suggested that this division provided for exhaustive content validity. Items were constructed for each domain, which became the EBS subscales of Natural Beauty, Artistic Beauty, and Moral Beauty. The EBS evidenced adequate internal consistency and temporal stability: EBS total score α ranged from .90 to .91, and test-retest reliability ranged from .79 to .85; the EBS Natural Beauty subscale α was .80 in Studies 1 and 2, and its temporal stability ranged from .79 to .84; the EBS Artistic Beauty subscale α ranged from .87 to .88, with temporal stability of .77 in Studies 1 and 2; and the EBS Moral Beauty subscale α ranged from .85 to .89, with temporal stability of .61-.67. Corrected item-total correlations ranged from .53 to .69 for the 14 items, which is in the desired range (Netemeyer et al., 2003). Following a CFA, the chi-square test and the *RMSEA* demonstrated a satisfactory fit for the model, with three correlated subscales of the EBS and a single second-order factor. Likewise, several fit indexes (*AGFI*, *GFI*, *CFI*), ranging from .91 to .97, indicated that the three-factor model of the EBS is reasonable.

In terms of convergent validity, the EBS had a substantial positive correlation of .80 with the ABE subscale of the VIA-IS (Peterson & Seligman, 2004). This correlation is so high that it indicates that these two instruments likely measure the same thing. However, the EBS has some advantages over the ABE subscale of the VIA-IS. The EBS has a clear theoretical background based on the philosophy of aesthetics, including the manner in which Kant (1790/1987), Hegel (ca. 1835/1993), and Aquinas (ca. 1260/1947) have differentiated forms of beauty; at this time, no construct or content validity arguments for the ABE have been published. The ABE's items focus on both beauty and excellence, whereas the EBS is solely devoted to beauty. Also, the ABE is not readily available to researchers as a stand-alone measure, but only as embedded in the 240-item VIA-IS. Although the structure of the questions on the EBS is quite different from the ABE, there is some overlapping content: The ABE has (a) 1 item addressing moral beauty (the EBS has 6), (b) 2 items directly addressing artistic beauty (the EBS has 4), and (c) 1 item directly addressing natural beauty (the EBS has 4). Whereas the EBS has subscales that can separately measure natural, artistic, and moral beauty, the ABE does not. The 10 items of the ABE are items 17, 41, 65, 89, 113, 137, 161, 185, 209, and 233 on the VIA-IS and can be compared with the items on the EBS (see the Appendix).

The medium to high positive correlations with measures of gratitude and spiritual transcendence also support the validity of the EBS and suggest that people who are more highly engaged by beauty are more likely to have a grateful personality and to experience more spiritual transcendence (as predicted by Haidt & Keltner, 2004). The low but statistically significant positive correlation with satisfaction with life and the low negative correlation with material values were in the predicted directions. Study 3 demonstrated specific predictive validity for the EBS Artistic Beauty subscale in differentiating students engaged in the arts from those who were not.

An engagement-with-beauty intervention study (Diessner, Rust, Solom, Frost, & Parsons, 2006) demonstrated further predictive validity for the EBS by showing that the EBS differentiated between a group of students who participated in focused engagement with beauty exercises from a group that did not. Diessner et al. also found a significant correlation between the EBS (especially the EBS Moral Beauty subscale) and the trait of agentic hope (cf. Snyder et al., 1991), a relation that was predicted because both hope and appreciation of beauty are strengths of the transcendence virtue (viz. Peterson & Seligman, 2004). We conclude that the EBS has shown satisfactory psychometric properties and a range of evidence for validity. It is a measure worthy of further study and may be useful in character strength research.

Limitations and Future Research

There are several limitations and qualifiers concerning the present studies. One major issue is that of generalizability; our samples were all fairly homo-

geneous samples of college students in one state college in the United States. Clearly, further studies need to be performed across age, occupation, educational achievement, and ethnic group in both America and cultures outside the United States. Researchers' approach to engagement with beauty needs to be examined in various cultures through the methods of psychological anthropology. At present, most of the influential texts on cultural psychology or psychological anthropology do not have an index entry for beauty (cf. Cole, 1996; Matsumoto & Juang, 2004; Rogoff, 2003; Shore, 1996; Shweder, 2003). This omission should be addressed through empirical cultural psychology methodologies. One of the advantages of the EBS for cross-cultural contexts is that it focuses on the response to beauty, which is arguably more likely to generalize across cultures than are the particular qualities that may evoke this response.

Although our goal was to create a relatively simple paper-and-pencil test of individual differences in engagement with beauty, the EBS shares the validity pitfalls of most self-report measures, such as the "ability and willingness" of participants to accurately report their views of themselves (Wegener & Fabrigar, 2004, p. 165). J. Haidt (personal communication, January 18, 2006) also noted that we should more carefully examine third-variable problems, such as trait positive affect. Our finding a positive correlation with the SWLS (Pavot & Diener, 1993) reinforces this concern, but the fact that the correlation was quite low (.20) indicates that the EBS is not simply a measure of general positive affect trait.

J. Haidt (personal communication, January 18, 2006) also noted that although art and beauty have traditionally been closely associated, in the 20th century they diverged considerably, with many artists losing any interest in portraying beauty (cf. Danto, 1994). Haidt was thus concerned that the Artistic Beauty subscale may be measuring not a person's engagement with beauty in art, but perhaps a person's experiences with art and museums. He also noted that this concern is reinforced by the Artistic Beauty subscale's correlating lower with nearly every associative correlational measure in the present studies in comparison with the Natural Beauty and Moral Beauty subscales. Although we find content validity in the Artistic Beauty subscale on the basis of our philosophical analysis, and the known-groups study lends the EBS some predictive validity, we share Haidt's relevant concerns and hope to address them in future studies with the EBS.

J. Haidt (personal communication, January 18, 2006) also proposed that sexual beauty may be a distinct form of beauty not addressed in the EBS, and that our psychological systems that respond to art may be based on two very different systems, with differing phylogenetic heritages: that of the beauty of landscapes and the beauty of a potential sexual partner. These are provocative hypotheses and can be addressed in future empirical work with the EBS.

Perhaps the most important next step regarding investigating the properties of the EBS is a correlational study with the Big Five personality traits. An administration of the EBS with the NEO PI-R would provide a useful analysis of engagement with beauty as a trait and examine concurrent validity of the

EBS Artistic Beauty subscale with the Aesthetics facet of the broad trait of Openness.

Another important use of the EBS would be to further explore the connection between moral emotions and moral action. Although moral reflection and deliberation are crucial to some moral judgments (cf. Kohlberg, 1984), it seems that moral emotions may be more causally implicated in day-to-day moral judgments and in moral action than is deliberative moral reasoning (Haidt, 2001, 2002, 2006; Haidt & Joseph, 2004; Shweder & Haidt, 1993). We designed the EBS Moral Beauty subscale specifically to capture elements of Haidt's (2003; Algoe & Haidt, 2005) description of the moral emotion of elevation, an emotion that increases prosocial action tendencies. Therefore, the EBS might be helpful for intervention studies in which researchers aim to increase the experience of elevation.

The importance of beauty in a person's living the good life has been severely underappreciated in the last century in the Western world, particularly in America. In the world of art, wherein one might hope that beauty would be substantially represented, most artists during the 20th century have purposely avoided beauty (Danto, 1994). When reviewing the three classic goals of the good life—truth, beauty, and the moral good—one finds that science, in the pursuit of truth, has dominated Western discourse in the last century and has brought humanity many gifts (and a few horrors). Science, however, like the field of art, has divorced itself from beauty, and there is little discourse on the elegance of beautiful proofs or the sheer beauty of biological and chemical structures. Yet, at the beginning of the 21st century, the call to bring beauty back into art (Danto, 2003) and science (Fitzpatrick, 2001) is being made.

As Dewey (1934/1958) and Haidt (2003; Haidt & Keltner, 2004) have noted, moral goodness and beauty are intimately connected. Aristotle (ca. 340 BCE/2002 CE) viewed the human virtues as the signs of moral beauty, and one can argue, as Iris Murdoch has, that “an education in beauty can be a training in the love of virtue” (Winston, 2006, p. 285). In the last decade, every news service in the world has proclaimed the moral bankruptcy of business, corporate, and political leaders. Can moral degeneracy be traced to divorcing morality and beauty? We think it may. It appears that the main difference between simply perceiving something as moral and perceiving something as morally beautiful is that when people perceive an act as morally beautiful, they are motivated to act morally themselves (cf. Algoe & Haidt, 2005; Diessner et al., 2006; Haidt, 2006).

Therefore, as Winston (2006) argues, educating children and adults to love and appreciate beauty can have a morally salubrious effect on both individuals and society. But how will researchers know if their educational efforts are effective? Until now, there was no reliable and valid instrument to assess levels of engagement with the full range of natural and artistic beauty; in particular, no pencil-and-paper measure of engagement with moral beauty existed. This problem has been remedied; the present research demonstrates that the EBS has

moderately strong reliability and promising validity and that the largest subscale of the EBS does measure engagement with moral beauty.

Engagement with and appreciation of beauty are their own reward, but recent researchers have shown that appreciation of beauty also acts as a buffer for those suffering from psychological disorders. Peterson, Park, and Seligman (2006), in a Web-based study of 2,087 adults, found that those participants who were high in appreciation of beauty were more likely to recover from depression and anxiety disorders with greater levels of life satisfaction. They demonstrated that 2 character strengths—appreciation of beauty and love of learning—mediated life satisfaction and psychological disorders significantly more than did 22 other character strengths. This implies that the development of appreciation-of-beauty interventions with clinical populations is warranted. Researchers could use the EBS to evaluate the effectiveness of those interventions.

Conclusion

Beauty is an essential third of the classical Western triumvirate of truth, beauty, and the good. Beauty has received the least attention of the three from psychologists and, until now, no measure solely devoted to examining individual differences in appreciation of and engagement with beauty existed. The EBS helps fill this void.

AUTHOR NOTES

Rhett Diessner is a professor of psychology at Lewis-Clark State College. His main research foci are issues related to engagement with natural, artistic, moral, and spiritual beauty. **Rebecca C. Solom** is a psychology major and psychology research assistant at Lewis-Clark State College. Her research interests center on topics in positive psychology. **Nellie K. Frost** graduated from the psychology program at Lewis-Clark State College with an award as the outstanding psychology student of the year. **Lucas Parsons** is a psychology and English major at Lewis-Clark State College. **John Davidson** is an honorary research associate at the University of Tasmania, Australia. His research interests are sleep and dreaming, peace studies, parenting programs, and the psychology of spirituality.

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APPENDIX

Engagement With Beauty Scale

In regard to all responses below: Keep in mind that we are only asking about your *experience with perceiving and feeling something as beautiful*. We are **not** asking if you like something; we are **not** asking if you think something is important; we only ask if you **feel it as beautiful**. **Mark each statement below with a number between 1 and 7: 1 = very unlike me; 2 = unlike me; 3 = a little unlike me; 4 = neutral; 5 = a little like me; 6 = like me; 7 = very much like me.**

(appendix continues)

APPENDIX (cont.)

Statements 1–4 below refer to experiences with nature and the physical world, including, mountains, rocks rivers, lakes, oceans, deserts, plants, flowers, trees, animals, etc. (but NOT the human body).

___1. I **notice beauty** in one or more aspects of nature.

___2. When **perceiving beauty** in nature I **feel** changes in my body, such as a lump in my throat, an expansion in my chest, faster heart beat, or other bodily responses.

___3. When **perceiving beauty** in nature I **feel** emotional, it “moves me,” such as feeling a sense of awe, or wonder or excitement or admiration or upliftment.

___4. When **perceiving beauty** in nature I **feel** something like a spiritual experience, perhaps a sense of oneness, or being united with the universe, or a love of the entire world.

Statements 5–8 below refer to experiences with art, such as paintings, sculpture, music, dance, architecture, poetry, novels, literature, etc.

___5. I **notice beauty** in art or human made objects.

___6. When **perceiving beauty** in a work of art I **feel** changes in my body, such as a lump in my throat, an expansion in my chest, faster heart beat, or other bodily responses.

___7. When **perceiving beauty** in a work of art I **feel** emotional, it “moves me,” such as feeling a sense of awe, or wonder or excitement or admiration or upliftment.

___8. When **perceiving beauty** in a work of art I **feel** something like a spiritual experience, perhaps a sense of oneness, or being united with the universe, or a love of the entire world.

Statements 9–14 below refer to experiences with humans, in which you perceive (or hear about) some person demonstrating an *impressive act of charity or loyalty or kindness or compassion or forgiveness or sacrifice for others or sincere service to others*. We refer to these as acts of moral beauty.

___9. I **notice moral beauty** in human beings.

___10. When **perceiving** an act of **moral beauty** I **feel** changes in my body, such as a lump in my throat, an expansion in my chest, faster heart beat, or other bodily responses.

___11. When **perceiving** an act of **moral beauty** I **feel** emotional, it “moves me,” such as feeling a sense of awe, or wonder or excitement or admiration or upliftment.

___12. When **perceiving** an act of **moral beauty** I **feel** something like a spiritual experience, perhaps a sense of oneness, or being united with the universe, or a love of the entire world.

___13. When **perceiving** an act of **moral beauty** I find that I desire to become a better person.

___14. When **perceiving** an act of **moral beauty** I find that I desire to do good deeds and increase my service to others.

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