

Comparing Spiritual Transformations and Experiences of Profound Beauty

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Certain highly emotional experiences have the potential to produce long-lasting and meaningful changes in personality. Two such experiences are spiritual transformations and experiences of profound beauty. However, little is known about the cognitive appraisals or narrative elements involved in such experiences, how they are similar, and how they differ. In a study of emotion-related narratives, these experiences were found to share many features but also differ in their valence. Experiences of profound beauty are almost always positive, but spiritual transformations are both positive and negative. Moreover, spiritual transformations seem to produce long-lasting change, but experiences of profound beauty, although evocative, do not seem to produce long-lasting change. An emotion approach helps to elucidate two understudied but important emotional experiences.

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In recent years, the study of spirituality has become an emergent focus in psychological science. Psychologists have focused on many positive aspects of spirituality and have recognized the importance of people's spiritual identities and the relation of religious and spiritual variables to a

variety of physical and mental health outcomes (Hill & Pargament, 2003; Koenig, McCullough, & Larson, 2001; MacDonald, 2000). Hill and Pargament (2003) have defined spirituality as a search for the sacred (see also Zinnbauer, Pargament, & Scott, 1999). Walker and Pitts (1998) asked people to describe spiritual people using a prototype approach, and such people are seen as devout (e.g., they believe in a higher power and are likely to pray), committed, meditative, contented, trustworthy, and caring. Underwood and Teresi (2002) developed a scale to measure daily spiritual experiences and claimed that daily spiritual experiences include (among others) feelings of connection to all life, joy that lifts people out of daily concerns, strength, comfort, being spiritually touched by the beauty of creation, gratitude, and acceptance of other people. LaPierre (1994) argued that spirituality involves several dimensions, including (1) a search for meaning in life, (2) an encounter with the transcendent, (3) a sense of community, (4) a search for ultimate truth or highest value, (5) a respect and appreciation for the mystery of creation, and (6) a personal transformation. All of these aspects seem, on the face of it, to be positively valenced.

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In the psychology of religion, there has long been an interest in studying spiritually transformative experiences. As is so often the case in psychology, we found our inspiration for the present study in the classic writings of William James. James (1902/1997) devoted two chapters of his classic book, *Varieties of Religious Experience*, to conversion, which is surely one of the most important subtypes of spiritual experiences. James wrote extensively about how these experiences can result in feelings and changes including the loss of all worry, certainty of salvation (among Christians), the perception of knowing truths not known before, a sense of newness, and cleanness in world (see also Starbuck, 1897).

In addition to the aforementioned positive aspects of religious conversions, James (1902/1997) noted that these experiences may involve a “sense of incompleteness and imperfection; brooding; depression; morbid introspection; sense of sin; anxiety about the hereafter; distress over doubts, and the like” (p. 167). It would make an important contribution to the psychological study of religion and spirituality to remind the field of the theory that spiritual experiences do not consist solely of positive aspects but can be highly frightening, arousing, and disillusioning. Hill (2002), inspired by the writings of James, outlined how spiritual transformation or growth can result from positive and negative emotion (e.g., fear, unmet needs for meaning).

In this study, we borrowed from methodological tools used in emotion research to document the emotional characteristics of spiritual transformations, compared with experiences of profound beauty. We chose to contrast spiritual transformations with experiences of profound beauty for two reasons. First, experiences of profound beauty are one of the elements of the Daily Spiritual Experience Scale (Underwood & Teresi, 2002), which is theoretically an influential view of spiritual experiences and a commonly used measure. Second, we hypothesized that it is likely that experiences of profound beauty would be more uniformly positive and would give us the chance to investigate whether spiritually transformative experiences are also likely to be positive or whether James’s analysis was correct in pointing to the negative aspects. This is an interesting comparison, because one could theorize that experiences of profound

beauty could have many of the same consequences, such as increased other-focus, and cognitive accommodation (increased understanding of self and world; Keltner & Haidt, 2003).

Experiences of Profound Beauty

Beautiful stimuli have been theorized to contain both complexity and order, to encourage making sense of the visual scene, and to shift levels of physiological arousal (Berlyne, 1971). These characteristics—most notably, complexity and the demand to find new meaning—are central to awe experiences (Keltner & Haidt, 2003). Visual stimuli, such as landscapes, often elicit feelings of beauty and awe, and preferences for certain landscape features have been theorized to have an evolutionary basis (Kaplan & Kaplan, 1989; Orians & Heerwagen, 1992). For example, Orians and Heerwagen (1992) theorized that humans have evolved preferences for landscapes that embody features of a high-quality African savanna during the Pleistocene era, in which the vast majority of human evolution took place. Of interest in this regard, people who were randomly assigned to live near trees and grass managed life stress better than those assigned to live in areas without such natural features (Kuo, 2001). Natural beauty, it seems, gives people a sense of understanding and perspective, consistent with recent claims about the correlates of awe. In the present study, we hypothesized that natural scenes would commonly be reported as eliciting awe-filled experiences of profound beauty.

Goals of the Present Research

We sought to uncover differences and similarities between two highly emotional experiences with the capacity to produce change, spiritual transformations, and experiences of profound beauty. To pursue these aims, we relied on narrative techniques used in the study of emotion-related appraisal, feeling, and thought (e.g., Shaver et al., 1987; Smith & Ellsworth, 1985) that have been used to identify the core meanings of different emotions (e.g., Ellsworth & Smith, 1988a, 1988b; Roseman, 1991, 2004; Smith & Ellsworth, 1985) and to differentiate between subtypes of emotions, such as the self-conscious emotions of embarrassment and

shame (e.g., Keltner & Buswell, 1996; Miller & Tangney, 1992).

Also, we used measures of cognitive appraisals because of the long tradition of investigating the appraisal structure of positive emotions (e.g., Roseman, 1991; Smith & Ellsworth, 1985), such as for love in romantic relationships (Fitness & Fletcher, 1993) and interest (Silvia, 2005). Appraisal processes powerfully determine which emotion is experienced in a given situation (Roseman, 1991, 2004). Because of the complexity and the uncharted character of the emotional experiences of spiritual transformation and profound beauty, we also solicited open-ended narrative descriptions of the experiences to be able to extract prototypes.

Method

Undergraduate students from the University of California, Berkeley, were asked to fill out an anonymous questionnaire packet concerning one of two experiences: spiritually transformative experiences or experiences of profound beauty. We chose an undergraduate population because of theorizing and empirical work by James (1902/1997), Starbuck (1897, 1900), and others, which have pointed to late adolescence–early adulthood as a time when such experiences are common and can have important, far-reaching consequences.

Participants were randomly assigned to write about either a spiritually transformative experience or an experience of profound beauty. In the beauty condition, participants ($n = 63$) were instructed as follows:

We are interested in experiences that involve a profound sense of beauty. People describe many different kinds of such experiences. If you have ever had such an experience, please tell us about it below. If you have not ever had such an experience, please answer the questions below in terms of what you think a typical experience is like that involves a profound sense of beauty.

In the spiritual transformation prompt, participants ($n = 84$) were instructed as follows:

We are interested in experiences that people consider to be a spiritual transformation. People describe many different kinds of such experiences. A spiritual transformation may be of the religious variety, it may have to do with what you consider to be sacred, it may be in response to something in nature, it may result from relationship with other people, or art, or many other things. If you have ever had such an experience, please

tell us about it below. If you have not ever had such an experience, please answer the questions below in terms of what you think a typical spiritual transformation is like.

We provided more examples for the spiritual transformation prompt (religion, sacred, nature, relationship, art) because of the highly idiosyncratic and heterogeneous meanings of spirituality (Zinnbauer et al., 1999), and we wanted participants to feel free to write about whatever domain or experience of interest. More participants were given the spiritual transformation version because pilot work suggested that these experiences are less common than beauty experiences.

We present data on the actual experiences of the participants, not their descriptions of their views of typical experiences. The dependent measures included cognitive appraisals of the experiences (see Table 1; Smith & Ellsworth, 1985); ratings of the involvement of 46 emotions and emotionlike states (see Table 1); and open-ended narrative descriptions of the causes, thoughts, feelings, physiology/behavior, and consequences of the experiences (Fehr & Russell, 1984; Shaver et al., 1987; see Table 2). We first solicited the narrative data so that cognitive appraisal items and emotion ratings would not influence the open-ended reports.

A detailed coding scheme to categorize the narrative features of the essays was developed on the basis of both (a) theoretical considerations and (b) a reading of participants' essays. Two trained research assistants who were unaware of condition (beauty or spiritual experience) and hypotheses both coded a randomly chosen subset of 30 experiences: 15 beauty experiences and 15 spiritual transformations. Agreement for each narrative code was high (see Table 2), so we present data from one of the coders, randomly chosen.

Results

Demographics

For all results, *ns* differ very slightly because of skipped questions. In the condition for experiences of profound beauty, 36 women and 16 men provided their gender. Of those reporting ethnic background ($n = 46$), 17 were European American, 19 were Asian, and 6 were Hispanic, with the remainder being from other ethnic groups. In the spiritual experiences condi-

Table 1
Cognitive Appraisals and Emotion Ratings of Spiritual and Beauty Experiences

Cognitive appraisal and emotion rating	Beauty		Spiritual		<i>t</i>	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Cognitive appraisals (Smith & Ellsworth, 1985)						
Pleasant	4.6	0.8	4.0	1.3	2.8**	0.59
Enjoyable	4.6	1.0	3.8	1.3	3.3****	0.71
Consider further	4.0	0.2	4.0	1.3	0.4	0.00
Devote attention to	2.2	1.3	2.5	1.5	1.1	-0.22
Circumstances beyond anyone's control	3.4	1.5	3.5	1.4	0.2	-0.07
Had the ability to influence what was happening	2.4	1.5	2.9	1.4	1.7 [†]	-0.34
Someone other than yourself was controlling what was happening	2.5	1.6	3.0	1.5	1.4	-0.32
Understand	3.7	1.2	3.6	1.2	0.2	0.08
Uncertain	1.8	1.1	2.3	1.1	2.2*	-0.45
Predict what was going to happen	2.9	1.4	2.3	1.3	2.2*	0.44
Problems that had to be solved	1.9	1.2	2.7	1.5	2.8**	-0.61
Obstacles	1.9	1.2	.8	1.4	3.3****	0.86
Fair	3.5	1.3	3.4	1.5	0.6	0.07
Cheated or wronged	1.3	0.9	1.7	1.3	1.9 [†]	-0.37
Responsible did you feel	2.4	1.4	3.3	1.5	2.8**	-0.63
Someone or something other than yourself was responsible	3.2	1.5	3.4	1.5	0.8	-0.13
Exert yourself	1.7	1.1	2.8	1.5	4.1****	-0.87
Effort	2.4	1.3	3.1	1.4	2.5**	-0.52
Emotion or emotionlike feature						
Amusement	3.2	1.5	2.4	1.4	2.5**	0.55
Anger	1.4	1.0	1.8	1.3	1.9 [†]	-0.36
Animation	2.4	1.4	2.0	1.4	1.3	0.29
Arousal	3.7	1.2	3.4	1.5	0.9	0.23
Awe	4.5	1.0	3.9	1.4	2.6**	0.51
Beauty	4.8	0.7	3.3	1.7	5.9****	1.27
Compassion	3.4	1.5	3.5	1.6	0.2	-0.06
Confusion	1.6	1.1	2.7	1.3	4.4****	-0.93
Connection to others	3.3	1.5	3.6	1.5	0.8	-0.20
Contempt	1.4	1.0	1.8	1.4	1.2	-0.34
Contemplative	3.6	1.3	3.5	1.6	0.4	0.07
Contentment	4.2	1.1	3.2	1.6	3.3****	0.76
Desire	3.0	1.4	3.2	1.6	0.5	-0.14
Disappointment	1.4	1.0	1.8	1.3	1.5	-0.36
Disgust	1.2	0.8	1.6	1.3	1.5	-0.39
Embarrassment	1.5	1.1	1.8	1.3	1.1	-0.25
Excitement	3.5	1.4	3.3	1.5	0.7	0.14
Fear	1.6	1.2	2.3	1.5	2.5**	-0.53
Goals and values	2.6	1.4	3.5	1.5	2.9**	-0.63
Guilt	1.2	0.6	1.9	1.4	3.1**	-0.71
Happiness	4.2	1.1	3.7	1.5	1.7 [†]	0.39
Hope	3.8	1.2	3.8	1.4	0.1	0.00
In control	2.5	1.4	3.0	1.4	1.7 [†]	-0.36
Inspiration	4.5	0.8	3.9	1.4	2.6**	0.56
Interest	4.2	1.2	3.5	1.5	2.2*	0.53
Jealousy	1.4	1.1	1.2	0.8	0.9	0.20
Lively	3.3	1.4	2.9	1.6	1.2	0.27
Love	3.6	1.5	3.6	1.5	0.1	0.00
Out of control	1.8	1.3	2.2	1.3	1.3	-0.31
Pain	1.2	0.8	1.9	1.4	3.0**	-0.65
Relaxation	3.7	1.3	2.9	1.6	2.8**	0.56

Table 1 (continued)

Cognitive appraisal and emotion rating	Beauty		Spiritual		<i>t</i>	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Religion	2.3	1.6	3.2	1.8	2.4*	-0.54
Relief	2.4	1.4	3.0	1.6	1.9 [†]	-0.41
Sadness	1.6	1.1	2.4	1.5	2.9**	-0.63
Self-esteem	2.7	1.5	2.6	1.5	0.5	0.07
Sense of purpose	3.2	1.4	3.6	1.5	1.3	-0.28
Sexual arousal	1.4	1.1	1.1	0.6	1.6	0.32
Spirituality	3.3	1.5	3.9	1.4	1.9 [†]	-0.41
Skepticism	1.4	0.9	2.1	1.4	3.0**	-0.63
Sympathy	1.8	1.2	2.1	1.2	1.1	-0.25
Surprise	2.8	1.5	2.8	1.6	0.2	0.00
Tension	1.5	0.9	1.8	1.3	1.3	-0.28
Thoughtful	3.7	1.3	3.8	1.3	0.2	-0.08
Worry	1.4	1.0	2.0	1.4	2.4*	-0.51
Way you deal with stress	1.6	1.1	2.1	1.5	2.0*	-0.39
Virtue	2.9	1.3	2.8	1.6	0.2	0.07

Note. Emotion ratings ranged from 1 (*not at all*) to 5 (*very much*). *t* indicates the significance of the mean difference in ratings between beauty and spiritual experiences.

[†] $p \leq .10$. * $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$. *ns* range from 40 to 41 for spiritual experiences and from 50 to 52 for beauty experiences.

tion, 29 women and 13 men provided their gender. Of participants in this condition, 11 reported their identity as European American, 21 as Asian, and 8 as Hispanic or Latino/a. There were no significant differences between the spiritual and beauty conditions in proportions of men versus women, $\chi^2(1, N = 94) = 0.00$, *ns*; proportion of Hispanic or Latino/a identity (yes vs. no), $\chi^2(1, N = 93) = 1.14$, $p = .29$; or proportion of White versus Asian identity, $\chi^2(1, N = 68) = 1.15$, $p = .28$.

Cognitive Appraisals

Participants rated both spiritual transformations and beauty experiences as highly pleasant and enjoyable and wanted to consider them further. Beauty experiences were rated more pleasant, enjoyable, and predictable. Participants felt more responsible for beauty experiences. Spiritual transformations were rated as involving more uncertainty, more obstacles to be overcome, and more problems that need to be solved; participants appraised spiritual transformations as requiring more exertion and effort. These findings clearly suggest, as developed in the early work of James (1902/1997) and Starbuck (1897/1900), that spiritual and conversion experiences often involve nega-

tively valenced feelings and that the current emphasis on the predominantly positive valence of spirituality may misrepresent this facet of spiritual experience.

Gender and ethnicity effects on spiritual and beauty experiences. Men (coded as 1; women coded as 0) were significantly more likely to rate that they had the ability to influence what was happening ($r = .29$, $n = 92$, $p \leq .01$), whereas women were more inclined to endorse the notion that someone other than the participant was controlling what was happening ($r = -.22$, $n = 93$, $p \leq .05$), as well as someone other than the self being responsible ($r = -.22$, $n = 92$, $p \leq .05$). These correlations are interesting but should be seen as preliminary because of the large number of correlations. However, we also note that the pattern of correlations for gender differences tells a consistent story, with men feeling more in control and responsible and women feeling less in control and responsible.

For ethnicity (White vs. Asian), correlations were small and no correlation was significant.

Emotion ratings. Beauty experiences were rated as involving significantly more amusement, awe, beauty, contentment, inspiration, interest, and relaxation than spiritual experiences. Spiritual transformations were rated as involving significantly more confusion, fear, pain, re-

Table 2
Features of Narratives About Beauty Experiences and Spiritual Transformations

Variable	% Agreement	% Beauty	% Spiritual	χ^2	Effect size phi
Causes					
Nature	93.3	54.9	6.8	24.84****	.51
Alone	83.3	11.8	13.6	0.08	.03
Religious event	76.7	0	34.1	20.65****	.47
Travel	86.7	13.7	13.6	0.00	.00
Death/injury	96.7	2.0	15.9	5.96*	.25
Thoughts					
Connection to others	93.3	5.9	20.5	4.55*	.22
Connection to God	96.7	2.0	29.5	14.30****	.39
Small	90.0	7.8	9.1	0.05	.02
Appreciation	73.3	31.4	9.1	7.06**	.27
Understanding of religion	93.3	0	4.5	2.37	.16
Understanding of self	80.0	2.0	25.0	11.36****	.35
Understanding of the world	76.7	2.0	15.9	5.96*	.25
Understanding of others	93.3	0	2.3	1.17	.11
Purpose	90.0	2.0	13.6	4.72*	.22
Negative thoughts about religion	96.7	0	2.3	1.17	.11
Positive thoughts about others	90.0	2.0	4.5	0.52	.07
Positive thoughts about self	96.7	11.8	4.5	1.60	.13
Positive thoughts about world	86.7	7.8	0	3.60†	.20
Feelings					
Happiness	80.0	35.3	27.3	0.70	.09
Beauty	80.0	47.1	0	27.71****	.54
Awe	86.7	41.2	15.9	7.26**	.28
Calm	83.3	29.4	22.7	0.54	.08
Gratitude	90.0	7.8	11.4	0.34	.06
Relief	96.7	0	9.1	4.84*	.23
Excitement	96.7	15.7	9.1	0.93	.10
Confusion	100.0	0	4.5	2.37	.16
Sadness	80.0	3.9	18.2	5.10*	.23
Behaviors/physiology					
Crying	96.7	11.8	25.0	2.82†	.17
Smiling/laughing	96.7	31.4	15.9	3.08†	.18
Heart racing	100.0	15.7	6.8	1.81	.14
Eyes wide	90.0	0	4.5	2.37	.16
Stillness	100.0	17.6	0	8.58**	.30
Exclamations (e.g., Wow!)	96.7	17.6	4.5	3.96*	.20
Silence	83.3	45.1	50.0	0.23	.05
Changes					
No change	86.7	17.6	9.1	1.46	.12
Changed understanding of self	76.7	15.7	54.5	15.97****	.41
Changed understanding of world	80.0	13.7	29.5	3.56†	.19
Religious strengthening	90.0	0	27.3	15.92****	.41
Calm	96.7	2.0	2.3	0.01	.01
Sense of control	96.7	0	0	0	.00
Sense of purpose	93.3	0	6.8	3.59†	.19
Connection to God	90.0	0	20.5	11.52****	.35
Appreciation	93.3	29.4	9.1	6.10**	.25
Sense of beauty in the world	83.3	25.5	0	12.99****	.37
Positive emotions about religion	90.0	0	11.4	6.12**	.25

Note. Agreement refers to the percent agreement for 30 randomly chosen narratives (15 beauty and 15 spiritual) between two coders who were unaware of condition and hypotheses. $\chi^2(1, N = 95)$ refers to the significance of the difference in proportions between beauty and spiritual experiences.

† $p \leq .10$. * $p \leq .05$. ** $p \leq .01$. **** $p \leq .001$. For phi statistics, we neglected the arbitrary sign of the coefficient.

ligion, sadness, skepticism, (marginally more) spirituality, skepticism, worry, and involving the way the participant deals with stress. Again, this dovetails nicely with early work by James and Starbuck on the negatively valenced facets of spiritual experience and conversion.

Compared with men, women (coded as 0; men coded as 1) rated experiences as involving more connection to others ($r = -.34, n = 93, p \leq .001$) and marginally more inspiration ($r = -.19, n = 93, p \leq .10$). Whites (coded as 1; Asians coded as 0) rated experiences as involving more beauty ($r = .25, n = 67, p \leq .05$), interest ($r = .26, n = 67, p \leq .05$), and skepticism ($r = .28, n = 66, p \leq .05$), whereas Asians rated experiences as involving more relief ($r = -.29, n = 66, p \leq .05$). Again, given the large number of correlations that we did not correct for multiple tests, these results should be viewed as preliminary.

Narrative Data

Table 2 reports results of narrative analyses.

Causes. Religious events and death more frequently caused spiritual experiences. Nature was much more frequently the source of beauty experiences.

Thoughts. Connection to others, connection to God, understanding the self, understanding the world, and sense of purpose were more common in spiritual experiences. Appreciation and positive thoughts about the world were more common in beauty experiences. Feeling small, understanding religion, negative thoughts about religion, and positive thoughts about others did not more frequently typify the spiritual and beauty experiences.

Feelings. Happiness and feeling calm were common in both kinds of experiences. Gratitude, excitement, and confusion were also not different. Both relief and sadness were more common in spiritual transformation. Beauty and awe were more common in beauty experiences.

Physiology and behavior. Silence was a common behavior in both experiences. Crying was marginally more common in spiritual transformation, whereas smiling/laughing was marginally more common in beauty experiences. Stillness and exclamatory remarks (e.g., Wow!) were more common in beauty experiences. Heart racing was somewhat more

common in beauty experiences but not significantly different.

Changes. James (1902/1997) and Starbuck (1897/1902, 1900) claimed that conversions commonly result in a feeling of knowing truths not known before, perception of newness, and ecstatic happiness. Paloutzian, Richardson, and Rambo (1999) reviewed the effects of religious conversion experiences and concluded that such experiences appear to have little effect on basic personality structure but do have big effects on goals, feelings, attitudes, behaviors, identity, and life meaning. In our data, changed understanding of the self and of the world, religious strengthening, positive feelings about religion, and connection to God were all significantly more common in spiritual transformation, and a changed sense of purpose was marginally more common to spiritual experiences. Increased appreciation and seeing more beauty in the world were significantly more common in beauty experiences. No change seemed more common in beauty experience, but the difference was not significant.

Although, as noted earlier, spiritual experiences involved significantly more negative emotions (e.g., confusion and worry), neither spiritual transformation nor beauty experiences commonly involved negative consequences. For example, for less than 3% of the time did either experience result in negative emotions about the self, the world, or others, and a lasting feeling of disappointment was also rare. As James (1902/1997) noted, these experiences can be difficult and anxiety provoking, but they appear to resolve themselves in positive ways—making people feel free from sin and the world having an appearance of newness (see Paloutzian et al., 1999, for a more recent review of evidence on the effects of conversion experiences).

General Discussion

An emergent emphasis in the study of emotion is on the positive emotions (Fredrickson, 2001) and emotions that enable the individual to transcend self-interest—emotions including gratitude (McCullough, Emmons, & Tsang, 2002; McCullough, Kimeldorf, & Cohen, 2008), love (Gonzaga, Keltner, Londahl, & Smith, 2001), and awe (Keltner & Haidt, 2003). In the present research, we examined two kinds of emotional experiences that have the potential

to change people in both positive and negative directions, and perhaps in prosocial directions. Narrative data capturing the antecedents and phenomenologies of spiritual and beauty experiences revealed overlapping themes as well as compelling distinctions. As one might expect, several of the defining features of these two kinds of experiences were similar, including high levels of awe. This is consistent with claims that at the core of awe are two dimensions of meaning—vastness and the need to shift knowledge structures (Keltner & Haidt, 2003). Spiritual transformation and beauty experiences were both highly positive in valence; there was an emphasis on circumstances more so than on the self being in control and an emphasis on understanding. These similarities are all the more impressive in light of the fact that the elicitors of spiritual experiences and beauty—religious events and nature, respectively—differed. It is also important to note the preponderance of similarities in spiritual and beauty experiences across gender and across our two ethnic groups.

At the same time, however, we observed numerous and systematic differences in these experiences. Spiritual transformation experiences were defined by greater uncertainty, obstacles, problems, and turmoil. Their emotional content involved more negative affects, such as guilt, pain, sadness, and worry. Also, in terms of change-related consequences, participants were much more likely to report gaining understanding into the self, the world, and a sense of purpose as a result of spiritual experiences.

These findings make an important point with respect to the study of spiritual experiences. Modern theorizing about spirituality has focused mostly on positive aspects of spirituality such as contentedness and gratitude, to the relative exclusion of negatively valenced emotions (Hill, 2002). Nevertheless, as far back as James (1902/1997), theorists have highlighted the negative emotions that can comprise spiritual transformations. Our findings suggest that emotions such as anxiety, sadness, and pain are central to religious and spiritual experiences. Of interest, our data also suggest that these experiences result in positive changes, consistent with previous theorizing about awe experiences and accommodation (Keltner & Haidt, 2003), and awe was a commonly cited emotion by our participants.

This work makes contributions to our understandings of two important emotional experiences—spiritual transformations and experiences of profound beauty. Our data have suggested a common core in appraisal, narrative structure, and self-rated emotions, as well as some important differences between these types of experiences.

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