Making the Case for Awe in Leisure Research

Joel R. Agate
Department of Recreation and Leisure Studies
The College at Brockport
State University of New York
Brockport, NY, USA

Sarah Taylor Agate
Department of Recreation and Leisure Studies
The College at Brockport
State University of New York
Brockport, NY, USA

Abstract

Recreation and leisure researchers have identified awe is a positive affective response that may occur during recreation experiences. Scholars have described awe as a powerful emotion that may be experienced when one is confronted with great beauty and grandeur, or as an emotional response to stimuli that do not fit within existing mental schemas. Positive psychologists have identified benefits of awe including increased personal strength, feelings of optimism, enhanced appreciation, an environmental ethic, the discovery of purpose and direction, and outcomes related to physical health. This paper offers a review of the literature addressing awe, including hypothesized antecedents and consequences of this emotion. The authors suggest that awe plays a potentially important role in the experience of outdoor recreation and call for future empirical studies to explore the potential benefits and disbenefits of such experiences.

Keywords*:* awe; leisure; outdoor recreation; positive emotions; positive psychology

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1. Introduction

Leisure is an important aspect of most people's lives. In fact, scholars have indicated that a full third of the average person's life consists of discretionary time (Chubb & Chubb, 1981; O'Sullivan, 2006), which many people seek to fill with activities that they find meaningful. Recreation and leisure activities often provide such meaning and other significant benefits that contribute to an improved quality of life (World Health Organization [WHO], 1997).

One way that leisure enhances quality of life is through facilitating positive emotions, which in turn, impact human wellbeing in measurable and meaningful ways. Researchers have found that positive emotions alter people's mindsets, facilitate physical and emotional healing, and predict other health outcomes (Fredrickson, 2005). Positive psychologists believe that facilitating and emphasizing positive emotions while focusing on human strengths and virtues may prevent many major psychological disorders (Seligman & Csikszentmihalyi, 2000) and contribute to longer, healthier lives (Danner, Snowdon, & Friesen, 2001; Levy, Slade, Kunkel, & Kasl, 2002; Stellar, John-Henderson, Anderson, Gordon, McNeil & Keltner, 2015).

Awe is one positive emotion that psychologists have explored. Leisure researchers have identified experiences of awe in various leisure activities and among various populations (e.g., Fredrickson & Anderson, 1999; Heintzman, 2006; Pohl, Borrie, & Patterson, 2000; Powell, Brownlee, Kellert & Ham, 2012), but have largely failed to elaborate on the meaning of this emotion or its place in the experience of leisure. The purpose of this paper is to present the concept of awe and to position awe in the context of leisure research.

2. Foundations of Awe

While scholars have not agreed upon a single, consistent definition of awe, they do agree that awe is an important construct and that it has significant and powerful implications for human wellbeing. In recent decades scholars have described awe as a mood (Staehler, 2007), an emotion (Halstead & Halstead, 2004; Keltner & Haidt, 2003; Sundararajan, 2009), and a cognition (Heschel, as cited in Ivanhoe, 1997). Awe is typically described as a possible human response (be it mood, emotion, cognition, or something else) when one is confronted with great beauty and grandeur (Adler & Fagley, 2005) or when one encounters something that is vast and fails to fit within existing mental schemas (Keltner & Haidt, 2003). As the majority of scholars who research awe refer to it as an emotion (e.g. Halstead & Halstead, 2004; Keltner & Haidt; Shiota, Keltner & John, 2006) it will be addressed as such throughout this paper.

One possible explanation for the lack of a clear definition of awe is that it is far easier to describe the object of awe, or that which puts a person at awe, than it is to describe the experience itself (Walter, 2004). Indeed, many scholars identify awe and write about it without offering a description of what they mean by awe (Atlis, Leon, Sandal, & Infante, 2004; Curtin, 2005; Dillon, 2002; Düzgün, 2004; Fredrickson & Anderson, 1999; Frijda & Sundararajan, 2007; Oveis et al., 2009; Saraglou, Buxant, & Tilquin, 2008). Beit-Hallahmi and Argyle (1997) criticized religious scholars for this omission, stating that many religious scholars describe awe as a component of religious experience, but fail to elaborate on what they mean by awe. This same phenomenon has taken place in other fields as well, including recreation and leisure (e.g., Fredrickson & Anderson, 1999; Heintzman, 2006; Pohl et al., 2000), and education (Elshayyal, 2007; Myers, 2007). In recent years, attempts have been made to define awe, but the definitions offered have been theoretical and have not been based in empirical research. Below, the authors will consider the definitions of awe that exist in the literature and attempt to synthesize these definitions.

2.1 Systematic definitions of awe. A literature search resulted in three distinct, systematic evaluations of awe offering complex definitions that require detailed and specific attention. The first of these is Keltner and Haidt's (2003) prototype approach to awe, which offers 'specifiable components, themes and features' (p. 303) of this emotion. Keltner and Haidt indicated that awe is more of a family of emotions, rather than a single emotion to be defined. In Keltner and Haidt's definition, prototypical awe is derived from two necessary features: vastness and a need for accommodation. Vastness refers to something that is much larger than the self, physically, socially, or in some other way. Keltner and Haidt indicated a strong correlation between vastness and power stating that powerful things tend to be experienced as vast. Vastness may be experienced, for example, when one stands at the ocean's edge or on a mountaintop. Keltner and Haidt described accommodation as 'the Piagetian process of adjusting mental structures that cannot assimilate a new experience' (p. 304). In other words, accommodation occurs when one is confronted with a situation that is completely unfamiliar. In order to make sense of such an experience one must adjust mental schemas. While vastness and the need for accommodation are the necessary components of awe, there are a number of other components that may be considered in prototypical awe. Depending on the specific type of awe, certain additional features may at times be added or missing.

Keltner and Haidt (2003) offer five factors that differentiate the experiences felt in the 'awe family' (p. 304). These factors are threat, beauty, ability, virtue and supernatural causality. Threat based experiences of awe are felt when danger causes an awe experience to include feelings of fear. This may happen for example in the case of an electrical storm. Awe based in beauty may be felt when confronted with a beautiful vista; aesthetic pleasure is the dominant feature of this type of awe. Awe based in a person's ability may be felt when faced with someone of exceptional skill or talent. This is likely to induce some form of admiration. Extreme virtue found in a person may induce feelings of awe similar to what Keltner and Haidt refer to as elevation. Encountering Mother Teresa, Gandhi, or Martin Luther King, Jr. may have provided an example of virtue-based awe. Awe derived from perceptions of supernatural causality may come from experiences in which one perceives that God or a supernatural entity of some kind is manifesting itself.

In considering Keltner and Haidt's description, Sundararajan (2009) offered an amendment to the prototypical awe, describing it as a coarse emotion and indicating the need for the development of a refined model of awe. She indicated that in order for people to experience a refined emotion they must be self-reflexive and capable of second-order awareness, or abstract thought and understanding of concepts. She proposed that, while Keltner and Haidt's prototypical awe predicts less frequent experiences of awe for people who have greater affective and cognitive resources, refined awe predicts the opposite, indicating that those with greater cognitive and affective resources will be more likely to experience awe as they reflect on experiences and encounters.

Halstead and Halstead (2004) offered a second detailed description of awe that is worthy of consideration. The authors differentiated between awe and wonder, describing them as twin terms that are often considered together. They stated that awe is both narrower and broader than wonder. It is narrower in that it refers to a certain kind of wonder, and broader because it encompasses feelings beyond wonder. In defining awe, the researchers highlighted four specific elements of this emotion.

Halstead and Halstead (2004) argued first, that awe is an emotion that is felt in the face of something vast and more powerful than the self. Second, 'awe involves wonder of a solemn or reverential kind' (p. 166). This may be in the presence of a person—perhaps a prince, a pope or a soldier. It may be in the presence of powerful artistic expression and it may, for many, be in consideration of deity or a higher power. This element of Halstead and Halstead's definition is similar to Otto's (1923) *mysterium tremendum*, which may 'lead to a self-surrender before God' (Halstead & Halstead, 2004, p. 167). A tinge of latent fear is the third element of awe described by Halstead and Halstead. This fear is described as a fear of something 'vaster' (p. 167) and more powerful than oneself that has the ability to leave one helpless. The authors indicated the intimate connection between awe and fear as evidenced by the fact that the Hebrew and Greek word for awe is the same as the word for fear. It is interesting to note that, according to this definition, awe is a blending of extremes, combining admiration or delight and terror into one concept. Finally, awe includes 'a response to what is perceived as powerful, inexplicable, vast or splendid in the natural world' (p. 167). This element of Halstead and Halstead's definition is very similar to Keltner and Haidt's (2003) description of vastness.

Although the definitions have some notable similarities Halstead and Halstead (2004) and Keltner and Haidt's (2003) definitions of awe also differ in a number of important ways. First, while Keltner and Haidt indicated that fear may be a flavor of awe that is present in some instances, Halstead and Halstead indicate that a latent fear, one that may or may not be realized, is a necessary component of awe. Similarly, the solemn wonder that Halstead and Halstead described is not necessarily present in all flavors of awe described by Keltner and Haidt. This solemn wonder may, however, be what Sundararajan (2009) was referring to as self-reflection when she indicated that refined awe experiences require one to look inward to explore how they fit into the experience and how the experience fits within them. Keltner and Haidt's description of a need for accommodation is also inconsistent with Halstead and Halstead's definition, which indicates that familiar settings are also likely to elicit awe.

A third modern definition of awe was derived from Heschel's (1965, 1976) writings and synthesized by Ivanhoe (1997). According to Ivanhoe, Heschel believed that awe is experienced whenever people view nature in what he called 'the proper way' (Ivanhoe, p. 108). Heschel believed that awe would then lead people to God (Eisen, 1989). Much like Keltner and Haidt's (2003) need for accommodation, Heschel's sense of awe came from that which is incomprehensible when one's imagination, understanding and reason are overwhelmed. He also believed that awe can be experienced in contemplating the beautiful or the everyday, which is consistent with Halstead and Halstead's (2004) description of awe, indicating that awe can be experienced in the absence of accommodation. Heschel believed that the sublime, that from which awe is felt, may be found not only in that which is overwhelming in size, but also 'in every grain of sand, in every drop of water. Every flower in the summer, every snowflake in the winter, may arouse in us a sense of wonder that is response to the sublime' (Heschel, 1976, p. 39). According to Heschel, awe requires that one be in the right frame of mind. This conceptualization of awe may be comparable to Sundararajan's (2009) description of refined awe, which requires self-reflexivity or second-order thinking.

In a contrasting statement, Heschel also suggested that awe is not a reflective judgment, rather an intuition. As Ivanhoe (1997) explained, feelings of awe are closer to perception than they are to judgment. People might shut their eyes to it if it did not thrust itself upon our consciousness. Heschel stated, 'The imperative of awe is its certificate of evidence, a universal response which we experience not because we desire to, but because we are stunned and cannot brave the impact of the sublime. It is meaning wrapped in mystery' (Heschel, 1965, p. 77).

Heschel noted that all people are capable of awe at times. Awe, then, is something that all people are capable of experiencing, but it requires that one be in the correct frame of mind.

Further drawing on the teachings of Heschel, Ivanhoe (1997) described the importance of nature in eliciting awe. As Keltner and Haidt (2003) indicated, he stated that nature is an appropriate object of awe due to its unruly power, which poses a prominent threat (perceived or real) to human beings.

> The respect and awe we feel is grounded in the objective fact that Nature is dangerous and much more powerful than creatures like us. Such an emotional response is well warranted. Such respect for Nature is healthy in that it is essential to the task of successfully navigating through the world (Ivanhoe, p. 111).

According to Ivanhoe, awe is a natural response that includes a level of respect toward that thing which holds us in awe. Heschel (1965) stated, however, 'awe is more than an emotion, it is a way of understanding' (p. 88). Additionally, Ivanhoe, described Heschel's belief that, 'Awe, unlike fear, does not make us shrink from the awe-inspiring object, but, on the contrary, draws us near to it' (p. 116).

This discussion raises the question of the apparently conflicting views regarding the element of threat or fear associated with awe. As stated above, Halstead and Halstead (2004) indicated that fear is one of the four key elements of awe. They noted that this particular type of fear is the 'fear of something vaster than oneself, that can impinge on one's life and leave one helpless' (p. 167). Keltner and Haidt (2003), however, stated that fear is not necessarily an element of awe and that other flavors of awe can be experienced without threat or fear being present. Similarly, other researchers (Ivanhoe, 1997; Konećni, 2005; Richie, 2005) who identified fear as an element of awe indicate that the fear cannot be such that it provides an overwhelming horror, which prohibits one from feeling awe. Instead the fear associated with awe must be one that is within one's control allowing one to feel safe as well. The presence or absence of fear remains an area of disagreement that should be clarified in future definitions. As the discussions on this topic have been conceptual no evidence has been offered to provide deeper understanding of fear as an aspect of awe.

2.1.1 Other definitions of awe. In addition to the above scholars, others have explored awe and offered additional insight into this emotion. Adler and Fagley (2005) described awe as 'a deep emotional, spiritual or transcendental connection to something' (p. 82). They described awe as representing 'an emotional connection to the specialness of an experience' and 'seeing and feeling the spark of brilliance, beauty, grandeur, and value of something such as a sunset, a newborn child, or Niagara Falls' (p. 82). They indicated that awe is a manifestation of appreciating and tends to include feelings of being 'swept away' by emotion, sometimes to the degree of speechlessness.

Schneider (2003) described awe as 'the basic human capacity for the thrill and anxiety of living, or the cultivation of the capacity for humility and boldness, reverence and wonder before creation' (p. 135). He later described awe as a sense of the magnificence and mystery of living. According to Schneider awe is the 'comingling of dread, veneration, and wonder that address not just separate aspects of our lives (e.g. shimmering mountain) but life itself, indeed existence itself' (2008, p. 170).

Konećni (2005) described aesthetic awe, which he differentiates from awe, indicating that aesthetic awe is focused on great beauty, rarity and physical grandeur. Aesthetic awe, in Konećni's definition, always brings the sensation of chills and feelings of being 'touched.' The author placed awe among the fundamental emotions: fear, anger, joy, and grief. Fundamental emotions are pancultural in expression; that is, they are recognized in similar ways across cultures. Because fundamental emotions are triggered by unambiguous stimuli they offer a specific object of focus. He stated that awe differs slightly from the other fundamental emotions in that it can be 'turned off' if a person switches focus away from the stimulus.

3. Disciplines Addressing Awe

In their seminal exploration of awe, Keltner and Haidt (2003) discussed the early treatments of awe in the fields of religion, sociology, philosophy, and psychology. This section of the paper will consider the research addressing awe in each of these fields as well as the field of education. Scholars from each of these fields have identified awe as an emotion that may have unique and important impacts on people and have suggested it is a construct worthy of further exploration.

3.1 Religion. Awe is often associated with religious experience. A number of researchers have hypothesized that feelings of awe may lead one to spirituality and religion (Haidt, 2006; Haidt & Keltner, 2004). In describing awe, several researchers draw on Otto's (1923) description of the numinous, or divine mystery. Otto argued that Mysterium tremendum et fascinans—the fearful yet fascinating mystery—leads to a numinous experience, which is the core of all religion. Halstead and Halstead (2004) indicated that mysterium tremendum is vastly different from ordinary human experience, stating that the only way to respond to the fearful mystery is with a sense of awe. Richie (2005) indicated that this numinous experience, consisting of mysterium tremendum and fascinans gives rise to feelings of awe, fear, or reverence. Like these researchers, Otto argued that awe is a significant element of spirituality and religion. Several other researchers have looked at awe in relation to various aspects of religion and religious experience.

Seeking to provide a contextual understanding of the term 'religious experience,' Düzgün (2004) identified awe as one aspect of religiosity or spirituality. Identifying religious experience as something that is largely influenced by one's own culture and presuppositions, Düzgün stated that people first see things on an empirical or experiential level, and then on a deeper level. A person confronted with an awe-inspiring scene, the vastness and beauty of the ocean, for example, may first be struck by the scene itself. As the person views this scene, the experience is then likely to be interpreted more deeply through that individual's perception. This deeper interpretation of the experience may draw on Sundararajan's (2009) description of the need for self-reflective thought as a facilitator of refined awe. For a religiously minded individual this experience could be interpreted as a gift from God or a manifestation of God's creation. Düzgün indicated that awe in the context of a religious experience must open one up to intellectual consideration and reflection on moral obligation.

This idea was echoed in research that explored the experience of participants in short-term religious mission trips (Linhart, 2005). Participants in such trips were reportedly exposed to important sacred moments in which experiences were engulfed by a holy significance. Linhart described these sacred moments as moments of awe and wonder and indicated that exposure to such experiences gives purpose and direction to the lives of those who experience them. Similarly, Halstead and Halstead (2004) indicated that feelings of awe make people more receptive to 'the divine law.' Interestingly, they also noted that the impact of awe is not limited to morality, and that it can contribute as well to self-knowledge by providing perspective and deeper understanding.

Saroglou et al. (2008) attempted to provide empirical support of the connection between awe and spirituality. They hypothesized that attitudes toward religion and spirituality would be more positive after experiences of awe. In their research they purported to facilitate feelings of awe in participants by showing them awe-inspiring videos, specifically videos of pristine natural spaces and childbirth. Subjects then rated their emotional response to the videos in terms of intensity and specific felt emotions and reported their personal religiosity and spirituality. Results indicated that, when compared to controls, those who viewed awe-inspiring images reported significantly higher levels of religiosity and spirituality afterwards. Similarly, Van Capellan and Saroglou (2012) later found that feelings of awe elicited not only spiritual feelings, but also closeness with others, and desires to visit spiritually significant destinations (e.g. Tibet).

3.2 Sociology. Historical views of awe in the sociological realm have considered how experiences of awe, as inspired by a heroic leader, may 'stir the souls of thousands, reprogramming to take on heroic and self-sacrificing missions' (Weber, 1978, as cited in Keltner & Haidt, 2003, p. 299). Durkheim (1887/1972) also discussed the ability of powerful emotions, like awe to create political, social, and religious movements. Powerful emotions like awe may serve, according to Durkheim, as a means of binding one individual to another entity, like a community or a nation. Modern sociologists (Clark, 1990) have identified feelings of awe as a function of social status and indicated that feelings of awe serve to designate a person's social status vis-à-vis another.

Other sociologists have also considered awe's place in human relationships. Dillon (2002) indicated that children's sense of awe serves to facilitate the adult-child connection by drawing adults into the child's world. He stated that when adults consider a child's sense of awe, wonder, and curiosity that their own view of the world is expanded. Another researcher (Walter, 2004) has identified the experience of awe toward the human body as causing people to look at their own bodies and those of people around them differently. He explored how Body Worlds, an exhibit in which human cadavers are used to create an 'educational and inspiring' art exhibit, impacted lay visitors. He noted that 'some visitors report[ed] developing an anatomical gaze that is detached from neither emotion nor life, a gaze that is suffused with awe' (p. 480).

Many who experienced this type of awe reported that this exposure to the human form caused them to see their own bodies, and for some, those of people around them, with a greater sense of awe. These people, accordingly, expressed an increased desire to be conscious of the miracle of the human body and to allow this to guide their treatment of the human body, their own or others'.

3.3 Philosophy. As Keltner and Haidt (2003) indicated, Edmund Burke's (1757/1990) description of the sublime experience provides a thorough and systematic description of an awe-like emotion. Burke's definition of the sublime described a powerful feeling that may be produced by literature, poetry, painting and viewing landscapes. This feeling is one in which thought is expanded and the mind is opened. According to Burke, the sublime experience is triggered by stimuli that are both powerful and obscure, or difficult for the mind to grasp. Keltner and Haidt drew upon Burke's sublime in describing the two necessary components of awe, vastness and the need for accommodation.

Additionally, in a philosophical evaluation of Heidegger's writings on fundamental or authentic moods, Staehler (2007) discussed awe as a fundamental mood. Fundamental moods, according to Heidegger, are moods that are not directed at a specific object, rather they are felt toward the whole world. Awe, according to Staehler, is derived from curiosity and is the mood that compliments anxiety. Whereas anxiety is felt over nothingness, awe provides voice for the amazement that 'there is something, rather than nothing' (p. 424). This description of awe as amazement over existence is somewhat limited in scope, but amazement over something is frequently recognized as an important element of this emotion (see Halstead & Halstead, 2004; Ivanhoe, 1997; Keltner & Haidt, 2003).

3.4 Psychology. In the past 15 years psychologists have given more attention to awe than researchers in any other field. Psychologists have worked to identify specific and defining characteristics of awe. Researchers (Shiota, Campos, & Keltner, 2003) explored whether or not unique aspects of facial expression are common among individuals experiencing awe. Haidt and Keltner (1999) also considered facial expression as they sought to determine if awe is a pancultural emotion. They noted that expressions of awe, for some participants, were confused with expressions of surprise. Whereas awe is often expressed with raised eyebrows and a gaping mouth, facial characteristics that may be similar to surprise, its expression typically includes a far off gaze that differentiates expressions of awe from expressions of surprise (Shiota et al.).

While the majority of the literature dealing with awe is conceptual in nature and lacking in empirical evidence, some researchers have conducted empirical studies that are worthy of consideration. Shiota, Keltner, and Mossman (2007) conducted a series of studies to explore how people experience awe and to identify awe as a unique emotion. In the first study, researchers gathered personal narratives from the participants to explore how and when they felt awe. They found that study participants were most likely to experience awe in natural settings and that recollecting experiences of awe prompted participants more often than not to want to return to the outdoors. Similar outcomes were reported by Coghlan, Buckley, and Weaver (2012) who described a desire to relive such experiences. In this study they not only asked about people's experiences of awe, but they also asked about experiences of happiness and thereby determined that awe appears to be a qualitatively different experience from happiness. This difference is seen in that awe is likely to be elicited by information rich stimuli whereas happiness is more commonly associated with the anticipation of material and social rewards.

In a second study these researchers (Shiota et al., 2007) compared awe to feelings of pride. Findings indicated that awe and pride are unique emotions, rather than different dimensions of the same emotion. These researchers found that pride is likely to be experienced when one is successful in a socially-valued act that is likely to increase one's social status. They also describe that pride is associated with feelings of control and evaluating oneself as higher than one's peers. This is different from awe in that awe tends to be associated with an external stimulus and results in feelings of being small in the scheme of things (Keltner & Haidt, 2003; Shiota et al.). Shiota et al. found that people who experienced awe felt small, connected to something greater than themselves, unaware of other concerns, connected to the world around them and felt desires for the experience to continue.

Two additional studies reported by Shiota et al. (2007) identified a characteristic common among people who are prone to awe. These people tend to be capable of and willing to assimilate new information and rearrange their mental structures in order to accommodate such input. While these researchers purported to have experimentally elicited awe in one of their studies the methods used to do so are somewhat suspect and deserve additional scrutiny.

A particular weakness in the methods was in the use of a contrived experience that was hypothesized to induce awe but was in fact more typical for the subjects than experiences that are likely to facilitate awe according to the authors own definition (Keltner & Haidt, 2003). The subjects in this study, a group of university students, were taken to a public display of a dinosaur skeleton on the campus of their own university, a place that many of them had visited in the past. This skeleton, being relatively vast, was said to be likely to induce awe. While Keltner and Haidt describe vastness as a key component of awe-eliciting stimuli, the familiarity of this skeleton and the contrived nature of the experience do not likely allow for the other necessary element of awe, the need for accommodation.

A few researchers have considered elicitors of awe. Oveis et al. (2009) considered proneness to awe as an important aspect of positive emotionality. Also considering the idea of positive emotions, Shiota et al. (2006) correlated proneness to various positive emotions including awe with the traits in the Big Five Personality Scale (Costa & McCrae, 1992). They found that awe is correlated with extraversion and openness to experience. While these findings may have important implications for those interested in awe, Shiota et al.'s measurement of proneness to awe has not been validated. No reliability or validity is reported for the scale itself, but a Cronbach's alpha of .78 is reported on the awe sub-scale for the sample of 108 college students. More information is needed to understand the usefulness of this scale.

In considering how people in different mental states might experience awe and other positive emotions, Gruber, et al. (2009) compared self-reports of subjects diagnosed with bi-polar disorder with those of a nonclinical control group. They found that the subjects diagnosed with bi-polar disorder reported significantly fewer experiences of awe than nonclinical controls. Researchers indicated that their findings supported the importance of facilitating positive emotions in bi-polar patients.

3.5 Education. Some researchers have considered how awe may drive learning as well as teaching (Elshayyal, 2007; Myers, 2007). They indicated that approaching learning with a childlike wonder and standing in awe of a concept may drive learners and teachers to willingly delve deeper into a concept and to eagerly seek greater understanding. Others have argued that awe is a primary response to fate and tragedy (Halstead & Halstead, 2004) and that exposure to such ideas may enhance the way students view the world. Tragic drama, for example, may impact student's view of the control they have over what happens to them (Halstead & Halstead). Halstead and Halstead placed particular focus on the implications an awe-based reaction to tragedy has on the spiritual development of youth in an educational setting.

Ashley (2006) called for a renewal of awe and wonder as a means of developing a valuable and valued approach to environmental education. Indicating that there is great value in direct exposure to true nature as opposed to the 'sanitized wonder of safe media images' (p. 97), Ashley argued that media depictions of nature and the tourist industry which poses as environmental education are imposters that teach false realities and thereby diminish the knowledge that is needed to understand the world and the environment around us.

Schneider (2008) suggested that bringing awe into the educational system has the power to facilitate a love of learning in students as well as to broaden and deepen knowledge and skill associated with any specialization or craft. Similarly, Lopez (2006) stated that teaching positive psychology including concepts of awe provides an opportunity not only to enhance knowledge in the short run but also to enhance quality of life over time.

4. Benefits of Awe

Awe has been said to have potential 'sweeping effects' (Strümpfer, 2007, p. 502) for those who experience it. It has been placed by some 'in the upper reaches of pleasure' (Keltner & Haidt, 2003, p. 297) and by others as occupying a central place in spiritual development (Halstead & Halstead, 2004). Some believe that this powerful emotion has the capacity to 'change the course of a life in profound and permanent ways' (Keltner & Haidt, p. 297). Researchers have recently described a specific biological pathway between experiences of awe and outcomes of physical health and longevity (Stellar et al., 2015) and tied it to overall wellbeing (Rudd, Vohs & Acker, 2012). The above review of the literature suggests that scholars have indeed identified awe as a distinct, valuable and important emotional concept and have begun to seek to understand its depth and complexity.

Researchers have identified some significant and specific benefits associated with awe. Strümpfer (2007) described awe as a source of strength in times of transition and indicated that awe may have a significant impact on how people judge a given situation.

He suggested in fact, that experiences of awe may lead a person to view the world with greater optimism. Similarly, Adler and Fagley (2005) identified awe as an important aspect of appreciation and indicated that those who experience awe more frequently are likely to be more prone to feelings of appreciation. They additionally indicated that these people (those who frequently experience awe) are likely to have an appreciation for nature.

Awe is described as having a meaningful impact on religious or spiritual experience as well and has been credited by some scholars with bringing about spiritual receptivity. Düzgün (2004) indicated that awe opens people up to consideration and reflection of their moral obligations. Halstead and Halstead (2004) stated that awe has the power to affect behavior and makes people more receptive to divine law. Similarly, Linhart (2005) found that moments of awe provided participants in short term mission trips with purpose and direction. Indeed, researchers have recently demonstrated that experiences of awe can decrease feelings of entitlement while generating a broader social concern, including increased prosocial and ethical behaviors (Piff, Dietze, Feinberg, Stancato & Keltner, 2015) and increases in helping behaviors (Zhang, Piff, Iyer, Koleva & Keltner, 2014).

Curtin (2005) stated that encounters with nature that facilitate awe have emotional, psychological and physical benefits and encouraged researchers to seek a greater understanding of these benefits. Scholars have indicated that awe contributes to one's appreciation of the world (Adler & Fagley, 2005), causes one to inspire others to embrace life (Dillon, 2002) and can increase one's desire to protect the environment (Ashley, 2006). Walter (2004) indicated that awe, in a broader sense, can cause a person to value the thing that elicits awe in the first place. Strümpfer (2007) stated that awe is a source of personal strength. This was supported by Atlis et al. (2004), who found that women engaged in a difficult wilderness excursion found awe to be a source of psychological strength. Strümpfer also indicated that emotions in general influence appraisal of situations, and that positive emotions help to create more positive appraisals.

In further exploring the benefits of awe, Halstead and Halstead (2004) encouraged practitioners to facilitate awe, stating, 'We can encourage young children to be aware of jewels in a dewdrop or the vastness of the night sky; to use fantasy techniques to become a bird soaring in the sky or to see a flower or experience a taste as if for the first time. Simply lighting a candle may create a world of wonder and awe' (p. 172-173). This statement indicates some of the joy and power associated with feelings of awe and indicates that awe may indeed open up the world to a child or an adult.

Schneider (2003, 2005, 2008) spoke to this power as well, indicating that awe has the capacity to facilitate increased passion in the everyday life of citizens. He suggested that creating opportunities for awe in the education system, the day-to-day work environments and the governing bodies of a country would create a revolution that would result in increased productivity, satisfaction, and psychological wellbeing and a healthier society in general. He suggested that such experiences would motivate students to learn more, employees to produce more, and civil servants to create better societies out of a passion for the exploration and the discovery of something more or something better. Piff et al. (2015) indicated that experiences of awe have a viral component that drives people to share their experiences of awe with others. This research relates to the claim of Keltner and Haidt (1999), who indicated that awe as experienced in a group of people may give group members a sense of communal identity which would additionally contribute to the overall quality of life within a society.

5. Conclusion

As can be seen in the hypothesized benefits and scholarly descriptions of awe, researchers place significant value on this emotion. While the existing literature describing awe and its benefits is speculative and lacks in empirical basis, a number of components are common across descriptions of this emotion. First, as described by Halstead and Halstead (2004) and Keltner and Haidt (2003), awe is recognized as an emotion. Scholars also agree that awe is a response to perceived vastness or power in the eliciting object (Adler & Fagley, 2005; Halstead & Halstead; Heschel, 1965, 1976; Keltner & Haidt). Awe is consistently identified with spirituality (Halstead & Halstead; Keltner & Haidt; Saraglou, et al) indicating both that awe enhances spirituality (Saraglou et al.) and that spiritually minded individuals are likely to experience awe (Halstead & Halstead).

Scholars have disagreed on the role of other constructs in the experience of awe. An element of fear has been identified across definitions but the nature of the hypothesized fear is not consistent. Scholars have described a latent fear (Halstead & Halstead), a fear that is present in only certain kinds of awe (Keltner & Haidt), and a fear that draws one near rather than causing one to shrink.

Scholars have also disagreed about the role of psychological accommodation in experiences of awe, some indicating that this process is a necessary component of awe (Halstead & Halstead) and others indicating that awe can be found in small, everyday experiences (Heschel, 1976; Ivanhoe, 1997) that are neither unfamiliar nor psychologically overwhelming and therefore do not require accommodation to occur. These and other divergences in the existing literature must be addressed in future research. As researchers continue to explore awe as a construct and seek to develop a useful and commonly accepted definition of this emotion such relationships must be considered and empirically supported or refuted. Because awe is frequently experienced during recreation, leisure scholars are in a position to contribute to the development of a more thorough definition of awe and a deeper understanding of this emotion.

5.1 The case for understanding awe in recreation In spite of the potentially important role awe plays in peoples' experience of outdoor places and in spite of the prevalence of awe experienced in natural and wilderness recreation (Cohen, Gruber & Keltner, 2010; Ivanhoe, 1997; Keltner & Haidt, 2003; Powell et al., 2012; Shiota et al., 2007), leisure scholars have largely ignored this important construct. Even when identifying it as a result of the leisure experience, leisure scholars make no attempt to further explain the meaning of awe and its consequences (e.g. Farber & Hall, 2007; Han & Peterson, 2007; Heintzman, 2006; Pohl et al. 2000). Meanwhile, scholars in other fields continue to hypothesize about the benefits that may be derived from experiences of awe, but little empirical evidence exists to support these claims.

Over the past few decades leisure scholars have placed significant emphasis on understanding the potential benefits derived from leisure. Driver (1997) indicated that leisure benefits may be experienced through the realization of a positive psychological experience. As leisure scholars continue to seek to understand the benefits of leisure as described by Driver and his colleagues (Driver, 2009; Driver, Brown & Peterson, 1990) it may indeed be important to understand the experience of awe as a positive psychological experience and to explain its contributions to quality of life and how it occurs during leisure.

Driver and his colleagues (Driver, 2002; Driver, Bruns, & Booth, 2000) have indicated four main purposes of understanding leisure benefits:

1. to help leisure policy makers articulate the social benefits of leisure,
2. to help park and recreation managers optimize the benefits experienced by visitors and participants,
3. to help leisure researchers and educators better understand the benefits and disbenefits (negative impacts) of leisure and to help them document these, and
4. to facilitate increased understanding of the role leisure plays in society.

If leisure scholars can understand and document the potential benefits (and disbenefits) of awe and the role of awe in leisure they may be able to articulate an important social benefit of such experiences, to help park and recreation managers facilitate such experiences for their constituents, and to enhance societal understanding of another important role of leisure.

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