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Eliciting Awe in the Spectator: The Case of a Dhrupad-Based Dance Performance

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This paper describes "*Kalos*, *eîdos*, *skopeîn*," an immersive Dhrupad-based dance installation designed to elicit feelings of awe in the spectators, in a real-life artistic context. This study used a mixed-methods approach in order to explore spectators' awe experience (N=45), using specific scales and interpretative phenomenological analysis. Results suggested that "*Kalos*, *eîdos*, *skopeîn*," with its combination of nature motifs and the slow dance-walk associated with the Dhrupad music in the choreography, was able to produce awe-related moments in some spectators and inspire a degree of positive emotions. Our qualitative results-viewed awe explicitly as a positive emotion and showed that generally the spectator narratives, involving the whole performance, were based on modified states of consciousness. Three themes emerged: the main theme is "A rich experience of modified states of consciousness" involving the whole performance, and two interconnected sub-themes "Captivated by the slowness of the dancers" associated with the slow movement and "I can still hear the mantra in my head" in rapport with Dhrupad music. This study was carried out as part of the Canadian FRQSC/FCI Project (2019-RC2-260306).

Keywords: Dhrupad, awe, transpersonal approach, dance, art, modified states of consciousness

The Infinite

Always to me beloved was this lonely hillside
And the hedgerow creeping over and always hiding
The distances, the horizon's furthest reaches.
But as I sit and gaze, there is an endless
Space still beyond, there is a more than mortal
Silence spread out to the last depth of peace,
Which in my thought I shape until my heart
Scarcely can hide a fear. And as the wind
Comes through the copses sighing to my ears,
The infinite silence and the passing voice
I must compare: remembering the seasons,
Quiet in dead eternity, and the present,
Living and sounding still. And into this
Immensity my thought sinks ever drowning,
And it is sweet to shipwreck in such a sea.

Giacomo Leopardi (Leopardi, 1819/1950, p. 924

In the upper reaches of pleasure and on the boundary of fear is a particular emotion: awe (Keltner & Haidt, 2003; Schneider, 2017; Yaden et al., 2018, 2019), "the experience of humility and wonder—adventure—toward living" (Schneider, 2017, p. 104). Awe is defined as a complex emotion arising from a perception of vastness and a need to accommodate the perception into existing mental schemas (Chirico & Yaden, 2018). Gallagher et al. (2015) formed a working definition of awe: "a direct and initial experience or feeling when faced with something amazing, incomprehensible, or sublime" (p. 6). Keltner and Haidt (2003) proposed that emotional experiences missing one or both core features of awe, vastness, and accommodation, should not be categorized as awe experiences. Specifically, accommodation, understood in its Piagetian sense as a mental reorganization, is

needed to incorporate experiences that do not fit pre-existing mental structures.

This study, carried out as part of the Canadian FRQSC/FCI Project (2019-RC2-260306), explored spectators' real-life experiences of awe during a Dhrupad-based dance performance. The goal of this *quali-quantitative* research (Morse & Cheek, 2014) is to achieve a deeper emotional understanding of the awe experienced by spectators watching a dance performance in an artistic context.

Awe, as part of human experience, is an important concept within both humanistic (Robbins, 2008) and transpersonal psychology (Hartelius, Caplan, & Rardin, 2007), as well as in related fields, such as positive psychology (Gable & Haidt, 2005) and the psychology of religion (Emmons & Paloutzian, 2003). Awe is experienced in response to diverse events and objects, from waterfalls and childbirth to scenes of devastation; experiences of awe can change the course of a life in profound and permanent ways (Keltner & Haidt, 2003). The empirical evidence collected to date has shown that natural scenes and phenomena (e.g., tornadoes, panoramic views, the ocean, and the forest) are among the main elicitors of awe (Collado & Manrique, 2019; Keltner & Haidt, 2003; Shiota et al., 2007; van Elk et al., 2016; Williams & Harvey, 2001), in addition to abstract elicitors of a more conceptual nature (Fredericks, 2018). Awe promotes openness to incredibly positive experiences as well as incredibly negative, fearful, experiences (McDougall, 1921; Shiota et al., 2007). Awe is a component of a transformative experience during which an individual feels part of a greater collective, a sense of belonging, and greater purpose (Keltner & Haidt, 2003; Quesnel et al., 2018; Stellar et al., 2017). Awe has also been linked to increased well-being and altruistic/prosocial behavior (Chirico & Yaden, 2018; Piff et al., 2015). Chirico and colleagues (2018) showed that awe affected key creative thinking components—fluency, flexibility and elaboration measured by the product improvement test—compared to a neutral stimulus. Awe, as a self-transcendent emotion, decreased people's desire for money (Jiang et al., 2018). Finally, awe is thought to result from situations involving self-expansion, to challenge existing views and ways of thinking, and to increase informational resources and a sense of being part of something larger (Campos et al., 2013; Chirico, Glaveanu et al., 2018; Haidt & Keltner, 2001; Shiota et al., 2007).

A study by Rudd et al. (2012) revealed that changes in decision making and well-being were due to awe's ability to alter the subjective experience of time. Being awe-inspired is also good for physical well-being. Of the six positive emotions measured by Stellar et al. (2015), awe was found to be the strongest predictor of reduction in inflammatory cytokines, which are responsible for the initiation and persistence of pathologic pain (Dinarello, 2000). Another recent study showed that people consistently experienced greater positive emotion and less anxiety in the awe condition compared to the neutral condition (N = 729; Rankin et al., 2020). Awe often contains both positive and negative valence (Gordon et al., 2017). Despite its wellness benefits, awe and its cousin emotion "wonder" are rarely experienced, due to the specific conditions upon which they depend, such as an attitudinal openness to a new experience and the presence of astonishing visuals, like landscape vistas (Quesnel et al., 2018; Shiota et al., 2006).

Brain imaging studies (Guan et al., 2018, 2019) suggest that individual differences in dispositional awe involve multiple brain regions related to attention, conscious self-regulation, cognitive control and social emotion. Specifically, one study (Guan et al., 2019) indicated that positive awe was positively correlated with gray matter volume (GMV) in the precuneus, and negatively correlated with GMV in the left fusiform and the right calcarine. Negative awe was negatively correlated with GMV in the left and right insula and the left superior temporal gyrus. Furthermore, this complex emotion protects the immune system against chronic and cardiovascular diseases and enhances satisfaction toward life (Krause & Hayward, 2015; Stellar et al., 2015).

From a gestalt perspective (Koffka, 1935; Köhler, 1929; Wertheimer, 1924/1938; Perls et al., 1951), we conceptualized the awe experience according to a figure–ground organization: ground is composed generally by "a direct and initial experience or feeling when faced with something amazing, incomprehensible, or sublime" (Gallagher

et al., 2015, p. 6), and the figures are considered the different dimensions of awe evaluated with a recent scale (Yaden et al., 2018) through a set of 30 items, which include altered time perception, self-diminishment, connectedness, and perceived vastness. From a qualitative perspective, we argued that awe as narrative experience could have a closed link with a lot of modified states of consciousness described in the scale of Studerus and colleagues (Studerus et al., 2010).

Eliciting Awe: Scientific Practices

Considering the transformative potential of awe, the important methodological question of how to elicit intense feelings of awe within controlled laboratory conditions must be explored (Chirico et al., 2016). Researchers have been interested in how to reproduce intense feelings of awe within a laboratory setting since confining awe to situations of exceptional prominence overlooks the infinite potential of awe (Weger & Wagemann, 2018). For instance, Shiota et al. (2007) induced awe by exposing their participants to a life-sized replica of a Tyrannosaurus Rex dinosaur. Reinerman-Jones et al. (2013) exposed their participants to space and earth views during a simulated space-flight in an immersive virtual reality simulator. In a new field of research, Yaden et al. (2016) showed that astronauts viewing the earth from space recounted narratives that expressed an awe experience. Those authors argued that this kind of experience suggested directions for future research on altered states of consciousness in isolated, confined, extreme environments such as space flight.

Recently, virtual reality (VR), a technology that combines multi-sensory stimuli to generate the perception of being "present" within computer-generated environments and users with the possibility to interact with three-dimensional content resembling real-life interactions, even in a controlled laboratory setting (Chirico, Ferrise et al., 2018, p. 2), has been proposed as a new technique to induce awe in the lab. A study carried out by Chirico and colleagues (2017) showed that the use of immersive videos (i.e., 360-degree video recordings that capture the entire scene around the camera) can generate more intense feelings of awe than conventional two-dimensional videos. In another study, Chirico et al. (2018) provided an evidence-based design and validation of four immersive virtual environments (VEs) involving 36 participants in a within-subject design. Results showed how scenes of nature in immersive virtual reality could elicit awe, with findings that demonstrated environments depicting forests, mountains and the earth from space successfully elicited awe in a way that neutral VEs did not. Furthermore, these VEs induced significantly more positive affect than negative affect. These findings support the potential of immersive VR for inducing awe and provide useful indications for the design of awe-inspiring virtual environments.

Eliciting Awe: Artistic Practices

Artistic practices have been eliciting emotions for centuries in a way that places awe as central to the experience of art (Haidt & Keltner, 2001; Keltner & Haidt, 2003; Shiota et al., 2007). Burke (1757/2009), a philosophical empiricist, defined the sublime (an awe-like aesthetic emotion) as the feeling of expanded thought and greatness of mind that is produced by literature, poetry, painting, and viewing landscapes (Keltner & Haidt, 2003). He theorized that two properties endow stimuli with the capacity to produce the sublime experience: power and obscurity. According to Burke, the sublime (or awe) is directly linked to primal and powerful passions. It is unruly, terrifying, and never fully graspable. Objects that are clear and certain in their origin, form, and design do not produce the sublime experience. The Irish philosopher contrasted pleasure and pain as sensations associated with the beautiful and the sublime, pleasure being connected to beauty, and pain, to the sublime.

German philosopher Immanuel Kant, in his *Critique of Judgement* (Kant, 1750/1951) proposed two types of sublimity: the mathematical and the dynamical. In the case of both notions, the experience of the sublime consists of a feeling of the superiority of one's own power of reason as a supersensible faculty over nature (Ginsborg, 2019).

German romantic artists often used their experiences of nature or natural events to convey the experience of awe. Caspar David

Friedrich's paintings of mist, fog, and darkness, such as the famous Wanderer Above the Sea of Fog (1817), sought to capture an experience of the infinite, creating an overwhelming sense of emptiness. In France, around the same time, Eugène Delacroix's and Théodore Géricault's paintings Hamlet and Horatio in a Graveyard (1835) and Evening: Landscape with an Aqueduct (1818), respectively, among others, were often massive in scale, enveloping the viewer and overwhelming the senses with a cacophony of variety and detail (Ingram, 2019).

British landscape painters responded to the desire for thrill and awe. John Constable's dramatic English landscapes are of note, especially Moonlight Landscape with Hadleigh Church (1796). Another example is the renowned painting Fishermen at Sea (1796), which highlights William Turner's ability to elicit emotion with images of powerful seascapes. In depicting skies that evoked the ephemerality of human will in the face of nature, these British painters captured the aesthetic of the sublime described by Burke and Kant (Ingram, 2019).

Unfortunately, little empirical research has explicitly tested whether and how art can elicit awe in real-life artistic performance. Shiota and colleagues (2007) revealed awe to be elicited by information-rich stimuli likes novels and music. Silvia et al. (2015) had participants listen to a song with qualities known to evoke awe ("Hoppípolla" by Sigur Rós) and rate their experience of it afterward. Results of this study showed openness to experience predicted the experience of awe through music ($r = .35$; Silvia et al., 2015).

Huron's (2006) experiment took a different approach and proposed that awe can be elicited in five distinct ways related to expectations. He explored how awe can be evoked through reaction responses related to defensive reflexes, tension responses related to uncertainty stresses, prediction responses related to reward prediction, imagination responses related to deferred gratification, and appraisal responses related to conscious evaluations. Huron (2006) showed how various musical techniques, such as cadence, climax, meter, syncopation, and tonality, can lead to expectations. His work provides a possible avenue for exploring the physiological underpinnings of at least some aspects of awe, such as an altered experience of time for the spectator induced by watching a dance performance (Deinzer et al., 2017). In an artistic, exploratory study, Quesnel et al. (2018) combined artistic and scientific practices in a research-based design process to create awe, an immersive mixed and virtual reality installation. Results suggested that awe can elicit the target emotional experience of awe, prompt a transformative experience, and improve well-being in some participants.

Methods

Our research is based on the idea that awe is more of a complex experience than a conventional emotion (Chirico & Gaggioli, 2018; Schneider, 2017). This implies the need for mixed methods and experiential approaches to induce awe in a real context, such as the experience of viewing art in everyday life. Our goal was to advance the systematic integration of quantitative and qualitative data within a single investigation (Wisdow & Creswell, 2013). A mixed-methods approach allows participants to have a voice and ensures that the findings are grounded in participants' actual experiences (Creswell et al., 2011; Mertens, 2011; Morse & Cheek, 2014). A quali-quantitative design typically involves two phases (Wisdow & Creswell, 2013): (1) an initial quantitative instrument phase, followed by (2) a qualitative data collection phase, building directly on the results from the quantitative phase. In this way, the quantitative results are explained in more detail through the qualitative inquiry (Patton, 1990). The inquiry typically focuses in depth on a few selected samples or even single cases. There are several different strategies for purposefully selecting information-rich cases in a qualitative approach. In our study, to explore the meaning of the experience, we chose spectators who had a high score (5–7) on the Awe Experience Scale (Yaden et al., 2018) associated with a feeling of altered time perception, a feeling of connection, and vastness. For us, these factors represented a form of transpersonal experience (Walsh & Vaughan, 1993). Moreover, they are described by the Experience of Unity, Spiritual Experience,and

Blissful State factors on the Studerus et al. (2010) scale measuring altered states of consciousness. To explore in depth the participants' experience, we used Interpretative Phenomenological Analysis (IPA; Smith, 2009). IPA is a qualitative research approach committed "to the examination of how people make sense of their major life experiences. IPA is phenomenological in that it is concerned with exploring experience in its own terms" (Smith et al., 2009, p. 7). Researchers aim to remain firmly anchored in participants' accounts rather than be shaped by predefined or overly abstract categories while also maintaining an awareness of their own presuppositions and their potential influence upon the research (Smith et al., 2009). IPA researchers are especially interested in what happens when the everyday flow of lived experience takes on a particular significance for people, which usually occurs when something important has happened in their lives (Smith et al., 2009).

A rich body of literature has used this method to capture human experience as seen in Smith, Flowers, and Larkin (2009) and Smith, Jarman, and Osborn (1999). Relating to artistic experience, Kirkham and colleagues (2015) examined patients' pictorial representations of their chronic pain, alongside their accounts of those images, in order to facilitate understanding of their lived experience of the condition. The participants were 7 women in middle adulthood from southern England who produced strong, vivid, abstract pictures. In many of the pictures, the pain is objectified as punitive and sinister. This was enhanced through the use of stark colors of red and black. In a recent study, Starr and Smith (2021) used Interpretative Phenomenological Analysis to explore the experience of looking at a painting. Twelve participants were individually interviewed while viewing Las Meninas by Diego Velazquez. Three themes were developed: 'The Gaze', Experiences of looking and being looked at, in relation to social and philosophical understandings of eye contact.

Empirical research in real-life artistic performance (Shiota et al., 2007; Silvia et al., 2015; Huron, 2006; Deinzer et al., 2017; Quesnel et al. 2018) has seemed to deemphasize fear or even terror as predominating in the awe experience, and some research showed awe explicitly as a positive emotion (Sundararajan, 2002 ; Saroglou et al., 2008; Piff et al., 2015; Chirico & Yaden, 2018; Rankin et al., 2020; Stellar et al., 2015), differing from its original meaning (Bonner & Friedman, 2011; Haidt & Seder, 2009; Shiota et al., 2007). Following this perspective, we expected a specific experience of awe as positive emotion in the context of real-life artistic creation. The study asked the following questions: Do spectators experience a specific form of awe during a dance performance? Can this experience increase the well-being state of spectators, expressed through the presence of the positive emotions, as described in the literature (Piff et al., 2015; Chirico & Yaden, 2018; Rankin et al., 2020; Stellar et al., 2015)? How do the spectators narrate awe experience after specific moments of the dance performance?

We proposed that "Kalos, eîdos, skopeîn" (Martin, 2019), with its combination of nature motifs (Schaefer, 2010) and the slow dance-walk associated with the Dhrupad music in the choreography, would produce awe experiences in the spectators. We argue that spectators can identify specific awe-related themes for the global performance and for several elements of the choreography, such as the slow dance-walk, the Dhrupad music, and nature motifs. Further, drawing on the literature devoted to the effects of dance on health as described by Hui, Chui, and Woo (2009) and Koch, Kunz, Lykou, and Cruz (2014), and the link between awe and increased well-being behavior (Stellar et al., 2015, Chirico & Yaden, 2018; Piff et al., 2015), we expected a specific experience of awe as a positive emotion in the context of our choreography.

Having taken into account the history of awe and the body of literature and research on awe, we hypothesized that the performance "Kalos, eîdos, skopeîn" (Martin, 2019) would produce awe experiences among spectators. In particular, we expected that the perception of time, the feeling of connectedness and vastness would be profoundly affected by the artistic experience. Second, we hypothesized that the awe experience would be associated with positive feelings (i.e., increase positive affect and decrease negative affect) and reduce state-anxiety.

Artistic Design

"Kalos, eîdos, skopeîn" (Martin, 2019), the literal etymology of "kaleidoscope," means "the beauty of images observed." In this study, it refers to an immersive installation composed of four white walls measuring 20 feet by 35 feet, onto which four different videos composed of travelling shots of nature are projected, including the surroundings of the St. Lawrence River near the Boucherville Islands in Quebec, Canada. "Kalos, eîdos, skopeîn" evokes a quasi-stationary voyage in a single space-time, a poetic journey—corporal, visual and acoustic—over an hour and twenty minutes.

The narrative structure of this immersive dance installation is based on a Malkhauns soundtrack and interpreted by the Gundecha Brothers in the Dhrupad style. Considered the musical form of naad yoga, the yoga of sound, Dhrupad (Clarke & Kini, 2011) is the most ancient form of music and song in India. Dhrupad is monophonic and modal, starting with a mode, or single melodic line that serves as a starting point for musicians to improvise, called raga and no harmonic parts.

Dhrupad music traditionally has three major parts: alap, jhor, jhala, and composition. Dhrupad is introduced by a slow tempo, rather solemn and controlled, and a recurrent set of syllables (non-words) known as an alap. An example of an alap set pattern is: a re ne na, té te re ne na, ri re re ne na, te ne toom ne. The last group is used in cadences to reach the tonic or the end of a long phrase (Rôya Caudhurī, 2000; Sanyal & Widdess, 2004). The alap is followed by the jhor, which develops a steady, non-cyclical beat, then continues into a faster paced jhala. The song concludes with the Dhrupad composition, usually set in 14-beat cycles, 12-beat cycles, 10-beat cycles, and 7-beat cycles. The singer attempts to emphasize the purity and clarity of each note with perfect pitch (Rôya Caudhurī, 2000; Sanyal & Widdess, 2004). The Malkhauns raga, a night raga, framed by different soundscapes, constituted the main body of the composition used in this study.

Soundscape and Images

The term "soundscape," coined by the Canadian musician Murray Schafer (2010), refers to creating the sensation of being immersed in a particular acoustic environment through an audio recording. For example, musical compositions based on sounds captured in a real environment, with or without musical interpretation, can be considered soundscapes. This dramaturgic structure, in terms of both concept and music, is inspired by images found in the videos. All of the video images were filmed using very long and slow travelling shots and then reviewed to determine the juxtaposition of different sounds: birds, wind, waves, and lapping water. Marked by the ambulatory aspect of the choreography, the video images were created through embedding rather than superposition, which adds depth to the image and to the extreme slow motion of the sequences, with the transitions in the latter being imperceptible. The visual effect, which comes from chromatic changes made to the same landscape over different seasons, completes the creation, by pushing the slowness of transition between superposed images to the extreme; the result, at times, resembles Impressionist landscapes (e.g., John Constable (1776–1837) represented light on the foliage of trees using small, dispersed brush marks ; Figure 1). The Dhrupad interpreters' voice-

Figure 1. Photo showing the dancers against a backdrop of nature images.

tuning exercise, with the tanpura and between voices, constitutes a central point of this vocal art, and here is visually transposed, desynchronizing the image. The structure of images, sounds, and "soundscapes" is organized chronologically (see Appendix A).

Choreography

Resonating with the sounds and images, the dance is anchored in basic gestural motifs that run as a thread through the danced composition. The first motif, which informs the entire composition, is walking. In the words of Hubert Godard (1995), walking is the first movement of dance; the founding disequilibrium. A walk that is poised, mastered, with a lot of weight, particularly slow, a focal point and common motif is shared among the dancers (Figure 2). The second is the synchronization of the four dancers' movements (AB, EAD, ADL, AP) specifically the moment of transfer, the shifting of the weight from one foot to the other. While the walk constitutes the primary gestural motif of "Kalos, eîdos, skopeîn," slowness provides the principal temporal dynamic. The slowing of movement, the taking and stretching out of time, reveals every tiny part of the unfolding gesture, action, or movement. This gives spectators time to perceive the piece's infinite corporal, gestural, acoustic, and luminous variations. The slowness is not rigid but rather fluid, meditative, and calm, giving the dancers time to let the body's actions unfold. Added to these three core elements is a reservoir of gestures and performative actions, organized into eight sections according to a subjective chronology. The sound and dance elements are intimately linked here, creating a fine resonance. Each part and its positioning in the timeline are then determined by the structure of the Malkhauns raga, the fruit of the millennia-old expertise of Indian music, and its yogic and meditative dimensions.

Participants (Spectators)

The inclusion criteria for participants in this study were to be 20 to 60 years old, fluent in French; the minimum age requirement was for legal informed consent. Participants had to have

Figure 2. Photo showing the dancers concentrating on stepping, falling and the transferring weight

attended one performance on either May 13, 15, 27, 29, and 30, 2019, and stayed throughout the entire performance at the Department of Dance at UQAM (Université du Québec à Montréal). Participants had to have had more than 2 years of continuous experience in yoga, meditation, or 2 years of practicing or listening to Indian classical music. All participants had to have completed post-secondary studies in French. The participants further had to have no personal connection to the choreographer. Participants who had a psychiatric history, evidence of use drugs, or were students, staff, or faculty at the UQAM were excluded.

Recruitment

The participants answered a call for participation distributed on Facebook and in the Department of Dance at Université du Québec à Montréal (UQAM). A research assistant selected participants according to the inclusion and exclusion criteria. The participants received compensation in the form of 15 Canadian dollars.

Materials

The Awe Experience Scale (AWE-S; Yaden et al. 2018) aims to capture the different dimensions of this complex emotion through a set of 30 items (Chirico & Yaden, 2018) that include altered time perception, self-diminishment, connectedness, perceived vastness, physical sensations, and need for accommodation rated on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). Time perceptions during the performance were measured by 5 items (α = .89; e.g., "I sensed things momentarily slow down", "I noticed time slowing"). The feeling of self-diminishing was measured by 5 items (α = .78; e.g., "I felt that my sense of self was diminished," "I felt my sense of self shrink"). We included a new item ("I felt that my personal concerns were less important") to capture the reduction of personal concerns sometimes lived during awe experiences (Shiota et al., 2007). Connectedness measured feelings of connection to other people and unity with surroundings (5 items, α = .96; e.g., "I had the sense of being connected to everything", "I felt a sense of communion with all living things"). During the show, Perceived Vastness, was accessed by 5 items (α = .91; e.g., "I felt that I was in the presence of something grand" "I experienced something greater than myself"). Finally, the physical sensations (5 items, α = .75; e.g., "I felt my jaw drop", "I had chills") and the need for accommodation (5 items, α = .85; e.g., "I felt challenged to mentally process what I was experiencing", "I found it hard to fully comprehend the experience") were measured. A total score for Awe Experience (α = .89) was computed by averaging responses to the 30 items. We also calculated a mean score for each subscale (e.g., self-diminishment, connectedness, etc.).

We used the State-Trait Anxiety Inventory (STAI) developed by Spielberger (1989; Spielberger et al., 1983) to investigate state and trait anxiety. Each scale consists of 20 items that are rated on a 4-point Likert scale. The State-Anxiety scale evaluates how respondents feel about anxiety "right now, at this moment" and the Trait-Anxiety scale assesses how people "generally feel" about anxiety. The reliability of these scales was satisfactory (State-Anxiety: pre-session: α = .94; post-session: α = .87; Trait-Anxiety: pre-session: α = .89; post-session: α = .92). A higher score indicates the presence of a high-level anxiety.

Emotions were measured using the 20-item Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988, French version, Caci & Baylé, 2007). Participants were asked to rate the extent to which they experienced each of the 20 emotions on a 5-point Likert-type scale ranging from "1-not at all" to "5-very much" during the performance. Half of the presented emotion words concern positive affect (i.e., interested, excited, strong, enthusiastic, proud, alert, inspired, determined, attentive, active), and the other half concern negative affect (i.e., distressed, upset, guilty, scared, hostile, ashamed, irritable, nervous, jittery, afraid). The reliability of the positive affect dimension was satisfactory (α = .80). Reliabilities analysis for the negative affect dimension indicated the item "upset" was deviant. Once this item was dropped from the analyses, the Cronbach alpha changed from .52 to .68.

An MP35 BIOPAC system was used to capture common indices of autonomic nervous system (ANS) activation in emotional regulation through sensors attached to spectators' bodies (Figure 3) during the performance. These psychophysiological results will be presented in a subsequent paper.

Procedure

We constructed an immersive theatre by removing the stage and immersing audiences within the performance itself, where there were ten soft pillows placed in front of the walls of the theatre (Figure 3). One week before the dance performance, in a specific room of the dance department at the University of Quebec in Montreal (UQAM), we explained the protocol and obtained informed consent from the spectators (participants). On the day of the performance, the spectators were asked to complete the STAI scales before (pre-session) and after (post-session) the dance performance to assess the impact of experiences of awe on their wellbeing. Participants watched the performance, and to evaluate awe experiences along with positive and negative affects, we used the AWE Scale and the PANAS scale. Data collection was held at the same location, in the Department of Dance at UQAM on May 13, 15, 27, 29, and 30, 2019. The experiment lasted approximately four hours, with the dance performance segment lasting one hour and twenty minutes without intermission.

Ethical approval for this study was obtained from the relevant Canadian university ethics committee, the Comité institutionnel d'éthique de la recherche avec des êtres humains (CIEREH – UQAM), certificate N° 2895_e_2019.

Treatment of Data

Descriptive statistics were calculated for the quantitative instruments used, and then correlational analyses were conducted among the AWE-S, STAI, and PANAS. A repeated measure one-way ANOVA was assessed the impact of the dance performance on STAI scores. As mentioned above, we used IPA (Smith et al., 2009) to explore

Figure 3. Photo of the immersive theatre with 10 seat cushions, equipped with Biopac sensors for the spectators

the artistic experience of the participants. The first stage of analysis "consisted of reading the whole transcript a number of times to become immersed in the data. During reading notes or comments, the ones which appear significant or interesting were recorded" (Shinebourne & Smith, 2011, p. 314). In our research, after the dance performance session (post-session), participants were asked in writing, to tell their experience of the dance performance with questions such as:

> Freely describe the experience during and after the show, as well as the thoughts, emotions, moods, feelings, ideas, images, etc. which are connected to it.

To begin analyzing the data for this stage, we used a text editor to number the lines of written questions and answers from the spectators. Then, following IPA, we read and reread the description of the experience and the meaning that each spectator gave.

The second stage "involved returning to the transcript to transform the initial notes into emerging themes or concepts taking care not to lose the connection between the participant's own words and the researcher's interpretations" (Shinebourne & Smith, 2011, p. 314). In our research, during the second stage of analysis, we started to identify emerging themes and figurative expressions of the spectators according to a transpersonal approach (Angus, Watson, Elliott, Schneider, & Timulak, 2015; Maslow, 1943; Rogers, 1951; Santarpia, 2020; Walsh & Vaughan, 1993).

To select the emerging themes and figurative expressions, we color coded the participants' sentences in relation to the overall performance and in relation to very specific significant moments described by the spectators (e.g. the slowness of the dancers or the music).

The third stage "consisted of examining the emerging themes and clustering them together according to conceptual similarities. As the clusters of themes emerged, the transcript was checked to ensure that the connection with what the participant has actually said was maintained. (Shinebourne & Smith, 2011, p. 314). In all our analysis but specifically for the third stage, we followed the qualities proposed by Nizza, Farr, and Smith (2021) for achieving excellence in interpretative phenomenological analysis: constructing a compelling, unfolding narrative; developing a vigorous experiential and/or existential account; close analytic reading of participants' words; attending to convergence and divergence.

Constructing a compelling/unfolding narrative means that "the analysis tells a persuasive and coherent story. The narrative is built cumulatively through an unfolding analytic dialogue between carefully selected and interpreted extracts from participants" (Nizza, Farr, & Smith, 2021, p. 371). Narrative development provides a sense of coherence to the analysis and is an expression of the hermeneutic circle linking part and whole which is characteristic of IPA (Smith, 2007, 2019). This operates at two levels: within and across themes (Nizza, Farr, & Smith, 2021). "Focus on the important experiential and/or existential meaning of participants' accounts gives depth to the analysis" (Nizza, Farr, & Smith, 2021, p. 371) and develops a vigorous experiential and/or existential account. Close analytic reading of participants' words involves "analysis and interpretation of quoted material within the narrative [to] give meaning to the data and the experience it describes " (Nizza, Farr, & Smith, 2021, p. 371). Attending to convergence and divergence means "idiographic depth and systematic comparison between participants creates a dynamic interweaving of patterns of similarity and individual idiosyncrasy". (Nizza, Farr, & Smith, 2021, p. 371).

The study was conducted in French, and all of the participants responded in French. Translation and revisions were performed to communicate the words and sentiments of participants accurately in English.

Results

The sample consisted of 45 adults (35 women, 10 men) with an average age of 41.6 years (SD = 11.2).

Quantitative Findings. As it pertains to the Awe Experience Scale (AWE-S, Yaden et al. 2018), participants, on average, reported that they experienced some degree of awe during the performance (M = 3.79, SD = .97). More specifically,

the performance was clearly associated with a feeling of altered time perception (M = 5.29, SD = 1.49), a feeling of connectedness (M = 4.48, SD = 1.86), vastness (M = 4.23, SD = 1.61), and, to a lesser extent, a need for accommodation during the experiment (M = 3.25, SD = 1.50), physical sensations (M = 2.52, SD = 1.36), and self-diminishment (M = 2.86, SD = 1.15).

It was essentially altered time perception (e.g., "I experienced the passage of time differently"), connectedness (e.g., "I had the sense of being connected") and vastness (e.g., "I experienced something greater than myself that were affected") that were affected greatly. The items relating to need to accommodation (e.g., "I found it hard to fully comprehend the experience"), self diminishment (e.g., "I felt that my sense of self was diminished") and physical perceptions (e.g., "I felt my jaw drop") seem to have been less affected.

Correlation analyses (Table 1) showed that feeling a sense of vastness during the dance performance was closely associated with feeling a sense of connectedness and unity with living things (r =.68, p <.01) with altered time perceptions (r =.44, p <.01), and self-loss (e.g., "I experienced a reduced sense of self"). A subjective sense of self-diminishment was also correlated with the need for accommodation when the awe experience was emerging (r =.49; p <.01), as described in the literature (Yaden et al. 2018). The more the self-loss scores increased, the more the spectators reported having difficulty integrating their experience (e.g., "I felt challenged to understand the experience").

Concerning the State-Trait Anxiety Inventory (Spielberger, 1989; Spielberger et al., 1983), a repeated measure one-way ANOVA was performed to determine the impact of the dance performance session on State-Anxiety. The analysis revealed that participants experienced significantly less state anxiety after the show (M = 46.18, SD = 2.69) compared to before it (M = 48.29, SD = 3.43), F(1, 44) = 19.59, p < .001. No significant difference between T1 - pre (M = 47.27, SD = 3.32) and T2 - post (M = 47.29, SD = 3.05) was observed on Trait-Anxiety, F(1, 40) = .00, ns.

Relations Between the Awe Experience and Emotion Measures

Correlations analysis revealed a significant and positive relationship between feeling Awe (i.e., AWE-S) during the performance and feeling positive emotions (e.g., excited, enthusiastic, proud, inspired) (r =.36, p <.05). This impact of awe on positive emotions remains significant even when controlling the effect of trait anxiety, t(45) = 2.56, p = 01.

The overall score of the Awe-S is neither correlated with the negative affect of the PANAS (e.g., distressed, hostile, irritable, nervous, afraid) (r = .02, ns), nor with the measure of state anxiety after the show (r = .10, ns). However, if we examine the role of each sub-dimensions, they are not all related in the same way to the affective measures. Indeed, correlations analysis show that the more

	1	2	3	4	5	6	7	8
1. Altered time perception	-							
2. Self-diminishment	.14	-						
3. Connectedness	.27+	.30*	-					
4. Perceived vastness	.44**	.43**	.68**	-				
5. Physical sensations	.10	.27+	.22	.28+	-			
6. Need for accommodation	.20	.49**	-.06	.11	.40**	-		
7. Positive Emotions	-.03	.22	.65**	.46**	.14	-.18	-	
8. Negative Emotions	.18	.08	-.19	-.25+	.13	.18	-.25+	-
9. State Anxiety	.12	-.06	.21	.11	-.10	.07	.13	.06

** p < .01, * p < .05, + p < .10

Table 1. Correlations between facets of the Awe Experience Scale and Emotion measures

participants displayed a sense of connectedness (r = .65, p <.01) and vastness (r = .46, p <.01), the more positive emotions they experienced during the dance performance. In a lesser extent, the feeling of self-diminishment was also positively related to the expression of positive emotions (r = .22, p = .14). Regarding negative emotions and state anxiety, only the feeling of vastness during the artistic performance was marginally related with less negative emotions (r = -.25, p = .10). State anxiety after the performance appeared to be unaffected by the awe sub-dimensions. These results are detailed in Table 1.

Qualitative Findings

Concerning the qualitative findings and to bring depth to our narrative analysis we chose 8 spectators (A, B, C, D, E, F, G, H) who had high scores (5-7) on the Awe Experience Scale (Yaden et al., 2018) associated with a feeling of altered time perception, a feeling of connection, and vastness. We identified three prominent themes (Figure 4) organized into the main theme of "A rich experience of modified states of consciousness" involving the whole performance, and two interconnected subordinate themes "Captivated by the slowness of the dancers" associated to the slow movement and "I can still hear the mantra in my head" in rapport with Dhrupad music.

A Rich Experience of Modified States of Consciousness

The totality (100%) of the high-scoring spectators' lived awe experiences closely related to the dimensions described in the Awe Experience Scale (Yaden et al., 2018) and in the scale of Studerus and colleagues, evoking modified states of consciousness (Studerus, et al., 2010). In particular, these spectators' narratives related on the spiritual experience and on the experience of unity (Studerus, et al., 2010):"This experience was so different from everyday life that it reminded me of a state of contemplation that I experience while dreaming sometimes" (Spectator A). "The lighting, the images, the atmospheres evoked the state of dreaming" (Spectator G). "The music plus the video as cells, plus the dancers' cells plus mine, are in a meeting" (Spectator B). or "Furthermore, I would add that I experienced feelings of grace, strength and unity" (Spectator A). "I appreciated the immensity of the setting, larger than life, as if I were there" (Spectator D).

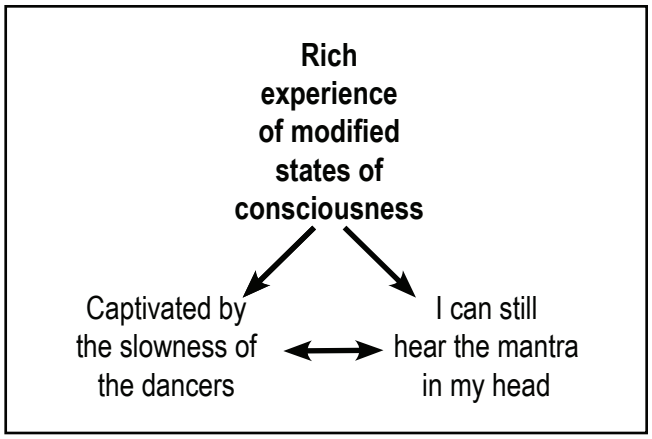

Figure 4. The main theme (black bold font) and the two interconnected subordinate themes.

These states left a mark after the performance: "Now I live an inner calm and a living calm" (Spectator B), or "A certain softness inhabits me, even if tiredness overwhelms me more and more, I still feel my back torturing me, I think of sleep, soft and calm" (Spectator C).

Spectator A gave a detailed analysis of her experience:

> After the show I felt like I had arrived from another world and felt inadequate in my social interactions. I felt like we couldn't pretend that nothing had happened, and at the same time I didn't know what to say--how to acknowledge this moment we shared. Other than that, I feel calm and clear-headed despite my physical fatigue. (Spectator A)

Spectators C and G emphasized the complex imagery and audio-visual synesthesiae (Studerus et al., 2010) with altered time perception (Chirico & Yaden, 2018):

> I fell into the world of dreams, of memories linked to nature, to travels, without a doubt it was the effect of the music and the opposite sky that we saw in the jar. To escape my body, which was hurting me more and more, I fell into the pleasant, dreamy, and soft pleasure of my inner world.

Clearly the storm at the very beginning, I quickly got chills, the happiness of those summer storms that smell good, that make you shiver with happiness and anticipation. (Spectator C)

I really liked the projections. The nature really takes me away with the sounds of water, rain, wind. It was very pleasant and soothing. In the past, I would have taken advantage of the moment to let my mind wander, but I was more interested in the present moment. The perception of time slowed down a lot, but at the end, I felt like there had actually been 1 hour and 19 minutes between the beginning and the end. I definitely pay more attention than I did before I saw the show. (Spectator G)

Spectator B spoke about a feeling of insightfulness (Studerus et al., 2010), and Spectator E illustrated a spiritual experience, in connection with the dancers and nature motif:

When they turned, especially the one that was close to me, its stability, its speed that seemed faster than the others, it made me feel centered and awake.(Spectator B)

I remember the moment when the dancers sped up their dance and started spinning like dervishes. It was mesmerizing. I was struck by the grace of the dancers, and even their grace in falling.

The images projected and the sounds heard were also inspiring and made you want to go back to nature. (Spectator E)

Spectators F and H intricately summarized the complexity of this experience of modified consciousness and well-being through a rich description and analysis:

Beautiful images of nature, beauty, elements, four seasons, inspiring images and settings. Interesting to see the images scroll by as if the stage was spinning. Enchanting music and voice. I loved it. White setting, colorful images, sounds of nature.

I deeply like, the elements, the nature, the slowness, the present moment, energy that circulates in the body. Like a taichi. Yippee! It makes me excited.

Transcendence... greater than oneself, it reassures me and puts me in peace. I don't need myself to make life go round, it's there and it flows. I felt energized and excited with pleasure. Thank you! And magnificent interpreters who embodied this energy, this flow that flows and circulates. I'm glad. (Spectator F)

I felt teleported, I walked in this forest, I felt myself bathing; I felt dry and warm during the winter images. In my thoughts, I was reminded of the anxious moments of my work but without the same effects on my body and mind. I felt my anxiety subside. I had my partner by my side; felt his presence and wonder at me. I feel able to face my anxiety. I feel my strength restored

To know that you can evolve without hurrying.

To be myself without having to prove myself. (Spectator H)

Following the principle of convergence and divergence (Nizza, Farr, & Smith, 2021) we noted several moments when spectators D and E lived experiences of discomfort:

On the other hand, the discomfort of my sitting position did not allow me to fully appreciate or enjoy this sublime performance. (Spectator D)

Discomforts related to sitting on the floor bothered me a bit a few times, but it was not as bad as I feared. I was afraid of having a bad back. (Spectator E)

However, in general, these moments of discomfort related to their physical position did not prevent the spectators from experiencing the perform ance.

Captivated by the slowness of the dancers

The slow movement of the dancers captivated the majority of the high-scoring spectators, "During the show I felt captivated by the movement of the dancers. The slowness they took to walk delighted me, as well as the impression of presence they gave off " (Spectator A). Spectator A used the verb "to captivate" and "to delight" to express the type of attention engaged with the slow movements, walking with "the foxes, and their

steps moving at the same pace through the seasons." Spectator A experienced a state of identification with the dancers, which meant entering into a spiritual experience (Studerus, et al., 2010), "The impression of presence they gave off...inspired me to adopt the same attitude of contemplation and concentration."

For spectator B the slowness evoked a rich inner experience of emotional elements (animality, sensuality, solidity), existential elements (fragility, loss of marks) and spiritual elements (elevation, unity, harmony):

> I felt solidity, sensuality, harmony, animality when I made contact with the dancers as they walked. There were moments of elevation in certain movements. I felt unity when they were spinning. I felt fragility and lost my bearings when they were dancing with their eyes closed. (Spectator B)

For Spectator C the experience of slowness was captivating and disconcerting:

> I cannot forget the dancers. I observed a lot, in the repetition of their movements, this slowness was at the same time captivating and disconcerting. (Spectator C)

For Spectator D the slowness brought a feeling of vastness (Yaden et al., 2018) which manifested as a pleasant feeling of appeasement and softness characterized by a suspension of thoughts and the iage of a "trickle of water."

> I like this feeling of greatness, of slowness which imposes a time longer than nature. State of appeasement, which paused the reflections in my mind.
>
> The slowness imposes softness ... . The gestures, movements like a wave, like the trickle of water.

This general feeling continued at the end of the show, giving an experience of softness "Right now, all this slowness is contagious and for me, slowness is synonymous with softness, calm."

A detailed analysis of slowness was made by Spectator E, evoking a spiritual experience associated with complex imagery (Studerus et al., 2010) :

> I felt a sense of slowness, and the impression of taking a trip on a boat along the water.
> The sounds of water, the images and the slow pace of the dancers made me feel good. I felt like I was meditating. I was very calm. I would even say that I could have gone to bed right afterwards, I really feel in a state of rest. I feel like we were in another dimension, because of the space we had and the slowness of the gestures. (Spectator E)

Spectator F felt a sense of well-being associated with the metaphor of the "wave" and "shelled walk" that had lasting effects after the performance:

> Very nice, beautiful to see walking, the movements so slow, fluid, but like a continuous wave, so strong, beautiful, full of life and energy, continuum. I love the slow pace. So nice to have the slowness so rare nowadays. Now, after the performance the shelled and slow walk is still fascinating.

Spectator G emphasized the difficulty of the task, expressing a sense of admiration:

> I thought it must be very difficult to move so slowly. I really enjoyed seeing them up close and perceiving all the micro-movements of their bodies. I can still hear the mantra in my head

The Dhrupad music attracted the attention of all participants, generating contradictory experiences; on the one hand, it generated modified states of consciousness (spectators A, B, C) and on the other hand, a feeling of disturbance (spectators D, E, G); for example, the narratives of spectators A, B, and C recounted a mixture of complex imagery, audio-visual synesthesia, and spirituality (Studerus et al., 2010):

> I can still hear the mantra in my head. I feel like going for a walk in the forest. I am left with a feeling of grace and sweetness that is quite pleasant. The music reminded me of the sacredness of existence. This experience, so different from the everyday, reminded me of a state of contemplation that I sometimes experience when dreaming. (Spectator A)

> The music massaged my body, surrounded me with a spiral that connected me to the dancers, sometimes it felt like rain on my body. At times, I felt very hot, especially when the music was combined with warm temperatures and round movements, then when it was winter, the movements I perceived seemed more angular. (Spectator B)

Specifically, spectator C used the metaphors "traveling down memory lane" and "time passing" to talk about the Dhrupad music:

> Then the music reminded me of a trip I took to India, I dove into memories. I thought I saw in it a metaphor for the passing of time, the passing of seasons, the dying and rebirth of nature.

For spectators D and G, the music, the song brought a disturbing loss of concentration and a sense of aggression, preferring the feeling of slowness that symbolized the suspension of the action in a world that goes fast.

> The music with the voices, on the other hand, made me lose concentration and I was disturbed by this emptiness that the slowness of the dancers gave me. I became aware of this annoyance at the end of the show when I realized that the rustling of the water or the wind in the trees brought me more peace of mind than when the voices started to be heard again.
>
> That moment when the voices stopped, and the dancers moved in near silence. Moment of grace for the body, the spirit. A moment of calm appreciated in this crazy life that we live every day. (Spectator D)

> The very static music makes me close my eyes and become introspective. I fought a lot against the urge to close my eyes because I wanted to see the dancers' movements.
>
> Sometimes the music attacked me, I wanted it to become more dynamic, to evolve more, to move harmonically. It was a bit of a test of patience because we had to tolerate the slow evolution of the music, the movements of the dancers and our static posture sitting on the floor. (Spectator G)

Spectator E also seemed to dislike the music, pointing out a sort of repetitive feeling: "The music called out to me too, by its repetitive and hypnotic effect."

Spectators E and H expressed a general feeling of beauty and human warmth in the music associated with and integrated into the whole performance, "the music, the sound and the images envelop me" (Spectator H).

> Interesting to see the images scrolling as if the stage was spinning. Bewitching music and voice. I loved it. White setting, colorful images, nature sounds. (Spectator E)

Discussion

The goal of this quali-quantitative research was to achieve a deeper psychological understanding of the awe experienced by spectators watching a dance performance. The data are oriented towards a modest validation of our hypotheses.

Our first hypothesis focused on the idea that the artistic performance named "Kalos, eîdos, skopeîn" (Martin, 2019) had some effect on the experience of awe. The overall scores for experiencing awe during the performance did not reach the midpoint on the Awe Experience Scale (Yaden et al., 2018); indeed 4 out of 5 spectators did not have a strong experience of awe as measured by the AWE-S; however, generally the performance was associated with a feeling of altered time perception, a feeling of connection, and vastness. In accordance with the literature (Yaden et al., 2018), the quantitative results showed that it is important to distinguish the different dimensions of awe. More specifically, we have observed that this artistic experience particularly affected the feeling of vastness and connectedness.

Similar to observations made in a natural environment (Collado & Manrique, 2019; Keltner & Haidt, 2003; Shiota et al., 2007; van Elk et al., 2016; Williams & Harvey, 2001), the participants perceived the show as a psychic object that went beyond ordinary consciousness. This feeling was associated with the experience of feeling connectedness to others and the environment. The perception of time was also profoundly affected

in the performance. This temporal alteration was characterized by the feeling that time was flowing differently (slowing down and speeding up). This result follows the data of several studies (Rudd, Vohs, & Aaker, 2012; Deinzer, Clancy, & Wittmann, 2017). The quantitative results showed that awe experience was strongly connected to the feelings of altered time perception, of connectedness, of vastness, which are characteristic of transpersonal experiences (Wash & Vaughan, 1993; Hartelius, Caplan & Rardin, 2007).

The results also revealed that not all dimensions of awe seem to have been affected equally by the performance. For example, the need for accommodation and the dimension of self-diminishment were less affected by this artistic performance. In our view, the relatively low scores on these dimensions do not indicate that the participants did not have the need of accommodation or a feeling of self-diminishment during the show. We assumed that given the way the items were formulated on the scale (e.g.,"I felt challenged to mentally process what I was experiencing"; " I felt that my sense of self was diminished," etc.), a score around 2 or 3 (on a 7-point scale) indicated the emergence of an experience of awe. Concerning our second hypothesis, the analysis revealed that participants' emotions were closely associated with their experience of awe during the performance. It is interesting to note here that awe and its sub-dimensions mainly impact indicators of well-being with a positive valence (i.e., PANAS positive affect). Thus, as in viewing an enormous mountain or Earth from outer space (Nelson-Coffey et al., 2019), perceived vastness during the performance leads spectators to feel positive affects (e.g., enthusiastic, inspired). Similarly, as in self-transcendent experiences with a dissolution of boundaries between the sense of self and others (Dambrun, 2016; Yaden et al., 2017), a feeling of unity with other people or one's surroundings during the show had a positive impact on emotion. These results were in line with previous research (Piff et al., 2015; Chirico & Yaden, 2018; Rankin et al., 2020; Stellar et al., 2015). Following this perspective, Nelson-Coffey et al. (2019) recently suggested that awe experiences, including experimental inductions of awe, are not only awe-inspiring, but that they may also give rise to a range of positive states, including several discrete self-transcendent emotions (compassion, gratitude, love, and optimism) and positive emotions in general, as well as self-relevant thoughts and connectedness to others. Awe experiences have been characterized as self-transcendent, and awe is classified as a self-transcendent emotion, along with positive emotions: compassion, gratitude, inspiration, admiration, elevation, and love (Stellar et al., 2017).

The results concerning the impact of the artistic performance and the role of the awe on the negative valence of well-being (i.e., negative affect and state anxiety) should be interpreted with more caution. Our results showed a reduction of state anxiety after the spectacle, but this reduction does not have a significant link with the awe dimensions. It is likely that the dimension of anxiety was influenced in the overall experience of the performance and not in the specific moments of the awe. In terms of correlations, the sub-dimensions of the awe experience were very weakly related to a reduction in negative affect. Only perceived vastness seems to lead participants to feel less negative affect. As mentioned, no significant correlations were observed between state anxiety and the different dimensions of awe. These observations deserve to be further investigated with a larger sample.

Our qualitative results from people who had the strongest scores on the AWE-S, using IPA (Smith et al., 2009), viewed awe explicitly as a positive emotion and showed that generally the spectator narratives, involving the whole performance, were based on modified states of consciousness. In line with empirical research in real-life artistic performance (Shiota et al., 2007; Silvia et al., 2015; Huron, 2006; Deinzer et al., 2017; Quesnel et al. 2018), the narratives seemed to deemphasize fear or even terror as factors in the awe experience (Sundararajan, 2002; Saroglou et al., 2008), differing from its original meaning (Bonner & Friedman, 2011; Haidt & Seder, 2009; Shiota et al., 2007) from research gathered in natural settings. We faced a challenge regarding a specific form of awe in the context of performance creation. The rigor and the scenography construction likely do not have

not the same radical unpredictability of a natural experience, in a natural world. Indeed, empirical research within a controlled laboratory (Chirico et al., 2017; Chrico, Ferrise et al., 2018) or using virtual reality (VR) to elicit intense feelings of awe induced significantly more positive affect than negative affect. Further, Yaden et al. (2016) suggested directions for future research on altered states of consciousness in isolated, confined, extreme environments, such as space flight. Our narrative analysis was oriented in this direction. The participants' narrations underlined a strong implication of different states of modified consciousness with awe experiences.

From a gestalt perspective (Koffka, 1935; Köhler, 1929; Wertheimer, 1924/1938; Perls et al., 1951), we conceptualized the awe experience according to a figure-ground narrative organization: in our qualitative findings the ground is the main theme "A rich experience of modified states of consciousness." In our analysis, figures were considered the two interconnected sub-themes related to the main theme "A rich experience of modified states of consciousness". The sub-theme "Captivated by the slowness of the dancers" emphasized the importance of the slowness of the dancers and the sub-theme "I can still hear the mantra in my head" was in rapport with Dhrupad music In summary, the spectators seemed to have lived a rich transpersonal experience.

Limitations and Future Perspectives

Potential limitations of the current study are related to its small sample size, leaving the extent to which it is representative of the population to further research. Furthermore, it is clear that the performance did not evoke strong awe experiences in the majority of the spectators. It would be valuable to know which spectators were more susceptible to the potential of the performance to evoke strong emotions and why. Another limitation arises with respect to methodology: we do not know exactly when the awe-related moments occurred for the spectators during the long duration of the performance. We hope that our psychophysiological data, which is currently being processed, will provide new insights into this question. Future research could focus on the link between positive emotions, modified states of consciousness and mental health. Chirico and Gaggioli (2021) created the Matryoshka model to show the effects of awe on depression. The model showed systematic and explicit connections between awe and depression. They suggested specific guidelines of intervention to utilize the potential therapeutic role of awe with depression and mental health. With this model in mind, it could be possible to offer artistic performance to patients to elicit awe in a mental health context.

Acknowledgments

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Appendix A

Soundscape 1: Spring (0m0s-8m 12s).

Ragas always begin with a few bars of solo tanpura. In Indian culture, the tanpura is a miracle in the sense that it contains in its sonority all the sounds of the world. Drawing on this principle, the initial acoustic environment evokes the awakening of nature in Spring. Beginning with a gentle breeze, a few birds, and the movement of leaves in the wind, the sound of a storm is heard, accompanied on the screen by the appearance of the first images, and among the dancers a movement of tuning in the same way that musical instruments are tuned together just before the concert that is almost imperceptible; this allows them to synchronize and, soon after, begin walking. Like raindrops falling on the ground, nature images appear on the four screens, in the form of splashes of colour that slowly come together to form complete natural landscapes. An imperceptible interplay between abstraction and figuration, aided by slow-motion embeddings, creates quasi-invisible transitions between the sequences.

Alap (8m 12s-24m 18s). Five minutes into the Spring soundscape, the tanpura can be heard gently emerging from the soundscape; this is a way of contextualizing the beginning of the music and illustrating that the tanpura represents all the sounds of nature. After a few minutes of tanpura,

the first musical movement of the raga begins; the alap. The alap is a slow, pulsing exploration of the different sound motifs of the raga. The two singers begin singing in turn, in an improvised structure of call and response. The alap introduces very few variations in the walk, one and common among the four dancers, who gradually make their way into the performance space. Small gestures, a rupture in the movement, a crossing of bodies or looks; at most.

Life gently awakening. Jhor (24m 18s-37m 47s). The second musical movement called jhor explores the same musical motifs, but with an accelerated tempo. To mark the transition from one movement to the next, the singers, together, begin with a somewhat more rhythmic melodic motif. On the screens, this transition is marked by a source of water that fades into the images of the forest, to then disappear. This change in the image is accompanied by the sound of waves echoing off in the distance. The movement of breaking waves follows the melodic movements of the singers during the first five minutes of the movement, creating the impression of really being on the seashore. At the same time, accompanying the rocking motion of the waves, the four dancers repeat in unison the same flowing gesture with their arms and torsos.

Soundscape 2: Winter (37m 47s - 45m 57s)

Then, a break suddenly transports us into a Winter acoustic environment, dominated by whistling winds and crackling ice. Here, the chromatic flourishes of traditional Indian music contrast with the monochrome Québécois winter. Unbalanced gestures, dense and tight muscles, a sudden acceleration of movement followed by deceleration, comprise this winter tableau, which is followed by the most rapid part of the entire work; the jhalla.

Jhalla (45m 57s à 58m 33s). The jhalla is the most rapid movement of the raga, taking up the same melodic motifs but with a much more sustained rhythm. The singers' dynamic deviations are also more pronounced and further energize the raga. Prompted by these intense, rhythmic flights, the dancers collapse, extend, soar, carry the space as if it were an invisible object, collide, touch, carry one another. This whirlwind comes to an end with the silence of night (1h00m 25s à 1h02m 38s) where, in the darkness and suddenly blind, they advance with an unsure step.

Bandesh Shankara (1h03m 36s-1h16m 19s). At the end of the night, a percussive sound suddenly fills the space from ceiling to floor. It is the pakhawaj, announcing the beginning of the bandesh, the last musical piece of the installation. The melody is different from the three preceding musical movements. Even more rhythmic and rapid, the percussion clearly marks this new frenetic rhythm, reinforcing the singers' powerful lyrical flights and highlighting their vocal virtuosity. The dancers spin around at different rhythms, like whirling dervishes. They end this movement by shifting to a slow walk, sweeping the space with a single step; a moment of migration and synchronization, inspired by "schools of fish" as observed in the ocean. Visually, the lyrical flights of the singers are accompanied by ultra-saturated flashes of the colour yellow, of varying intensities, emanating from within. A landscape of reeds scrolls across the four screens in the opposite direction to that of the first parts of the installation, evoking a decelerated walk visually punctuated by irregular flashes.

This final walk, strong, powerful, continues as the bandesh ends at 1 hour and 16 minutes, against the sound of the tanpura, which coalesces, one last time, into a soundscape; a mix of summer and autumn with a swirling wind and dead leaves gathered in its path. The birds and wind of the first soundscape also resurface before disappearing in a long and slow fade out lasting two minutes. The last video sequence ends in a final climax, illustrated by a circular white flash inspired by the global experience, a way of visually imagining the Dhrupad philosophy: "When you are there, you are not there, you are everywhere (Gundecha, 2018), extract from the film The Power of Sound. The Gundecha Brothers, Masters of Dhrupad, feature-length documentary directed by Andrée Martin).". Then, gradually, each of the elements – first the images, then the sound, the light, and finally the walk – come to an end; leaving the spectators with nothing to contemplate but silence and darkness.

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