



Enhancing resilience: An interpretative phenomenological analysis of The Awe Project

Jeff Thompson*

ABSTRACT

Awe is a complex emotion often associated with experiencing multiple other positive emotions during a captivating and immersive experience. Engaging in awe experiences contributes to enhancing an individual's personal resilience and well-being. Moreover, the benefits of experiencing awe transcend the individual, as it has been described as a self-transcendent emotion provoking concern beyond the self. Using an Interpretative Phenomenological Analysis (IPA) methodology, this exploratory paper evaluates the impact of The Awe Project, an online resilience and well-being program that can be accessed on mobile devices, on a specific cohort of participants. Data analysis consisted of examining participant post-program surveys and comments made during the program. Results indicate the program supported participants' resilience and well-being through evoking awe and using other mindfulness and resilience practices, such as having a sense of agency, cognitive reappraisal, connectedness, controlled breathing, gratitude and appreciation, meaning and purpose in life, and optimism and prospection.

Key Words Well-being; phenomenology; technology; mental health.

INTRODUCTION

It is imperative that new, evidence-based technological interventions be designed and empirically evaluated to support individuals' well-being and enhance their personal resilience. This urgency exists for a number of reasons: suicide remains a global concern, depression and anxiety continue to be a disturbing issue, and there is an increasing sense of isolation and loneliness. Each of these concerns has been further compounded by the emergence of the COVID-19 global pandemic, with studies showing increases in mental health conditions impacting people from a variety of demographic groups and geographic locations (Abbott, 2021; COVID-19 Mental Disorders Collaborators, 2021; World Health Organization, 2022).

Currently, even as COVID-19 and its related strains begin to dissipate, the mental health concerns remain significant (CVS Health, 2022; Melville, 2022; Xie et al., 2022). It is therefore necessary for individuals, as well as institutions, such as schools, organizations, and government agencies, to develop positive coping strategies that can support people's well-being and enhance their resilience, while also contributing to an overall positive and healthy daily life. These skills, strategies, programs, and interventions must be evidence-based and practically designed.

This paper uses the translational research approach to examine and evaluate one such program, The Awe Project, that was designed by the author to offer a brief resilience intervention accessible on mobile devices and computers to support an individual's resilience and overall well-being. Translational research is research conducted specifically for the purpose of improving human health (Thompson et al., 2022).

The Awe Project was specifically designed with mobile technology in mind for easy accessibility. The program is primarily grounded in eliciting awe in participants as well as prompting them to engage in additional, evidence-based resilience practices such as having a sense of agency, cognitive reappraisal, connectedness, controlled breathing, gratitude and appreciation, meaning and purpose in life, and optimism and prospection. Previous studies have established the close relationship between experiencing awe with these resilience practices and enhancing personal resilience and overall well-being (Thompson et al., 2022).

This paper examines and evaluates The Awe Project through interpretative phenomenological analysis (IPA), a specific type of phenomenological research methodology, by analyzing data collected from individual participant comments shared during the program and their feedback from a post-program survey. In addition to IPA, the broader

Correspondence to: Jeff Thompson, PhD, Department of Psychiatry, Columbia University Medical Center, 1051 Riverside Drive, Room 2713, New York, NY 10032, USA.
E-mail: jt2768@cumc.columbia.edu

To cite: Thompson, J. (2022). Enhancing Resilience: An Interpretative Phenomenological Analysis of The Awe Project. *Journal of Community Safety and Well-Being*, 7(3), 93–110. doi: 10.35502/jcswb.265

© Author(s) 2022. Open Access. This work is distributed under the Creative Commons BY-NC-ND license. For commercial re-use, please contact sales@sgpublishing.ca.

SG PUBLISHING Published by SG Publishing Inc. **CSKA** Official publication of the Community Safety Knowledge Alliance.

concepts of phenomenology also inform the development of this paper.

To begin, a literature review is first used to explain the principles of IPA and why it is the appropriate methodology to guide this exploratory evaluation of The Awe Project. Next, the literature review is used to examine awe and provide the rationale for concentrating the program around this specific emotion. Finally, the literature review concludes with an overview of resilience. Additionally, the previously mentioned resilience skills are explored, detailing their important role in supporting an individual's mental health and well-being, and in enhancing resilience.

Interpretative Phenomenological Analysis

Interpretative phenomenological analysis is a qualitative research methodological approach that first seeks to understand a person's experience of a phenomenon, after which a researcher makes an interpretation and establishes themes across multiple individuals' experiences (Creswell, 2007; van Manen, 1990). For this paper, awe is the phenomenon being explored, although other related, positive emotions and resilience practices are also examined.

Interpretative phenomenological analysis (IPA) is informed by three key elements: phenomenology, hermeneutics, and idiography (Love et al., 2020; Smith et al., 2009). Phenomenology guides IPA by "providing us with a rich source of ideas about how to examine and comprehend lived experience" (Smith et al., 2009, p. 11). Hermeneutics is the second theoretical source of IPA and is the study of interpretation. The phenomenon of awe is a subjective experience that is then interpreted and analyzed by the researcher, who is able to offer meaningful insights beyond the direct text provided by participants when they share their experience (Smith et al., 2009, p. 23). Lastly, idiography refers to the attention given to particular details; it explores a specific phenomenon and how it is understood from the perspective of a specific group and in a specific context (Smith et al., 2009, p. 29).

Although IPA is concerned with how an individual makes meaning of a phenomenon, the focus does not remain solely on a single individual. While the individuals provide their perspectives and insights on the experience, the researcher is responsible for making meaning and interpreting what has been shared. This has been referred to as a "double hermeneutic" (Smith & Osborn, 2003), as it shows the dual role of the researcher as becoming both a participant and an interpreter of the other participants' experiences of the phenomenon (Guba & Lincoln, 1994; Montague et al., 2020).

One goal of IPA is to make meaning of the experiences; hence, establishing themes across the group of individual experiences is a critical part of IPA when multiple participants are involved (Bonner & Friedman, 2011; Smith & Nizza, 2021; Smith & Osborn, 2003). Themes are derived from the researcher's understanding of the phenomenon, while they also review their notes and the connections and patterns of the data being analyzed (Smith et al., 2009).

The development of themes is a shift in the experience of the phenomenon as it moves from the participants to the researcher; however, the relationship between the two remains constant. This is an example of what is described as the hermeneutic circle, where the themes emerge from analyzing the entire dataset (the "whole"), which can only

be derived from the interpretations of each individual's subjective statements (the "parts") (Frechette et al., 2020). The circle is "completed" when those individual statements are collectively interpreted and therefore become part of a theme.

For the reasons explained in this section, a qualitative methodology such as IPA is the most practical for an exploratory paper examining and evaluating a program such as The Awe Project because it seeks to ascertain meaning, individually and also collectively as a group, of the phenomenon in question: awe.

Awe Explained

Awe has been described as a complex emotional response to something or someone extraordinary (Stellar, 2021; Thompson et al., 2022). Experiencing awe is subjective, as a situation that can be awe-eliciting for one person is not necessarily so for others; however, some common categories have proven effective in provoking awe in many individuals. These include nature, space, music and the arts, spiritual experiences, connectedness, and both one's own accomplishments and those of others (Graziosi & Yaden, 2019; Shiota et al., 2007; Sturm et al., 2020; Yaden et al., 2019). Moreover, direct experience on the part of the initiator is not required, as awe has been shown to be evoked through pictures, video, virtual and augmented reality, and narratives (Bai et al., 2017; Chen & Mongrain, 2020; Chirico et al., 2016; Chirico et al., 2017; Cuzzolano, 2021; Danvers & Shiota, 2017; Krenzer et al., 2018; Piff et al., 2015; Stellar et al., 2018; Rudd et al., 2012; Thompson, 2022a; Walker & Gilovich, 2020).

Although awe is experienced primarily as a positive emotion, there can also be potential negative feelings associated with awe, such as fear, terror, and horror (Arcangeli et al., 2020; Bethelmy, & Corraliza, 2019; Chirico & Yaden, 2018; Guan et al., 2019). This paper, however, examines the positive aspects and benefits of awe. There are two key elements associated with awe: vastness and the need for accommodation. These were first theorized in the seminal work conducted by researchers Dacher Keltner and Jonathan Haidt (2003). Vastness can refer to something physical but can also be conceptually based (Chirico & Gaggioli, 2021; Thompson, 2022b). This sense of vastness requires the creation of a new mental schema, which is also described as a need for accommodation (Keltner & Haidt, 2003; Thompson, 2022b).

The complexity of awe is best explained by the wide-ranging positive impact it can have on an individual, including neurologically, cognitively, emotionally, physically, and behaviorally. Neurologically, the positive impact of experiencing awe can include reduced activity in the *default mode network* (DMN) regions of the brain (Tabibnia, 2020; van Elk et al., 2019). Over-activity in the DMN has been associated with rumination and mental health conditions such as depression and anxiety (Coutinho et al., 2016; Hamilton et al., 2015; Posner et al., 2016; Preuss et al., 2020). Thus, experiencing awe can help offer a perspective shift by capturing a person's attention and providing a "break" from their current, detrimental mindset that can involve ruminating (van Elk et al., 2019).

Brain imaging work conducted by Guan and colleagues (2019) has shown that an individual's higher self-reporting of dispositional awe is negatively associated with regional gray matter volume in different parts of the brain (the anterior cingulate cortex, middle/posterior cingulate cortex, and middle

temporal gyrus). This work identified specific regions of the brain that have a role in processing dispositional awe. Another study by Guan and colleagues (2019) further demonstrated that different regions of the brain are activated based on the type of awe being experienced (positive compared with negative).

Cognitively, awe has been described as an epistemic emotion, meaning it can reveal gaps in one's current knowledge (Gottlieb et al., 2018; McPhetres, 2019; Cuzzolino, 2021). Awe as an epistemic emotion has also been associated with an individual's sense of curiosity to fill those gaps in knowledge (McPhetres, 2019). Anderson and colleagues (2020) established a further link between awe and curiosity, both having a positive impact on academic outcomes.

A common experience related to awe is an individual's referring to feeling "small" in a positive manner (Piff et al., 2015), which is also connected with humility (Stellar et al., 2018). This sense of "smallness," or the "small self," alters the person's perspective in various ways, including seeing their daily issues, concerns, and problems as less overwhelming (Piff et al., 2015; Reinerman-Jones et al., 2013; Shiota et al., 2007, 2017; van Elk et al., 2016). This "smallness" has also been shown to create a sense of connectedness with others (Yaden et al., 2017), while awe more generally has been linked with enhancing social connectedness (Sturm et al., 2020).

Awe experiences can enhance one's sense of purpose and meaning in life (Rivera et al., 2019) and overall life satisfaction (Krause & Hayward, 2015). Awe can also improve problem-solving skills (Dobson, 2015), increase focus (Danvers & Shiota, 2017), and promote creative thinking (Chirico et al., 2018; Keltner & Haidt, 2003; Zhang et al., 2021). Additionally, awe can increase a sense of gratitude, openness, and optimism (Nelson-Coffey et al., 2019; Stellar et al., 2018). Awe's impact on a person's perspective also includes an expanded shift in how they perceive time. Rudd and colleagues (2012) showed that people who were induced with awe felt less impatient and did not feel rushed (Rudd et al., 2012).

Awe can also have numerous emotional benefits for the individual, including increasing happiness and instilling an overall positive mood (Gordon et al., 2017). Awe can assist individuals with being able to handle ambiguity and uncertainty (Bonner & Friedman, 2011; Shiota, et al., 2006; Shiota, et al., 2007), while it can also reduce feelings of stress (Anderson, et al. 2018; Bai et al., 2021; Stellar et al., 2017) and despair (Bonner & Friedman, 2011).

Experiencing awe has been shown to have positive benefits on an individual's physical health and overall well-being (Rudd et al., 2012; Stellar, et al., 2015). This includes awe having a positive impact on one's immune health, as research has established a relationship between awe and lower levels of pro-inflammatory cytokines (Stellar et al., 2015). Stellar and colleagues (2015) have found high levels of cytokines to be associated with deficient health, including depression, diabetes, and heart disease.

Lastly, experiencing awe can also impact a person's behaviour, as it is considered a self-transcendent experience (Chirico & Yaden, 2018; Jiang & Sedikides, 2021), meaning one that involves looking beyond oneself and taking a larger perspective that includes concern and care for others (APA, n.d.; Yaden et al., 2016). The prosocial behaviours associated with experiencing awe include altruism, compassion, generosity, kindness, and concern for others and the environment

(Nelson-Coffey et al., 2019; Piff et al., 2015; Rudd et al., 2012; Yang et al., 2016, Yang et al., 2018; Zhao et al., 2018; Zhao et al., 2022).

Awe has also been described as being both a mindfulness and resilience practice (Büssing, 2021; Clark, 2020; Keltner, 2017; Lutz et al., 2015; Sturm, et al., 2020; Tabibnia, 2020; Thompson, 2022a). Tabibnia (2020) found that awe is both a type of mindfulness practice and a component in supporting an individual's resilience and well-being, and recent works by Thompson and colleagues (Thompson, 2020a; Thompson & Drew 2020; Thompson et al., 2022; Thompson, 2022a; Thompson 2022b) have further explored this notion of awe as a mindfulness practice and its relationship with other resilience practices. As described later in this paper, The Awe Project attempts to put these previous studies, suggestions, and recommendations into practice.

Researcher Marianna Graziosi (2018) explains awe's subjectivity and relationship to mindfulness by clarifying that awe is both an ordinary response to the extraordinary, while also being an extraordinary response to the ordinary. An individual's approach, perspective, and reflection contribute to awe being experienced in a particular situation or interaction.

Finally, and expanding on Graziosi's work, The Awe Project embraces the approach that experiencing awe is not limited to once-in-a-lifetime, extravagant, or extraordinary moments. Rather, awe can be experienced in brief, everyday moments (Shiota, 2021). Kirk Schneider's (2009) work elaborates on this aspect by explaining that those purposely *seeking out* specific instances for awe to occur are most likely not to find it. Instead, simply *being open* to experiencing awe in one's daily activities can bring about moments of awe.

Resilience Explained

Resilience refers to adapting in the midst of adverse and challenging situations and the ability to "bounce back" in a manner that is positive and productive (APA, 2020; Southwick & Charney, 2018; Thompson, 2022a). Additionally, resilience involves seeking support beyond one's own means when necessary (Thompson, 2022a; Thompson, 2020b).

With respect to trying to enhance an individual's well-being, research by Wild and colleagues (2020) has shown that psycho-educational measures alone are not as effective as initiatives that involve interactive elements where participants engage in techniques and practices. Knowing about resilience and its evidence-based practices is not enough: enhancing resilience requires the participant to take action.

Individuals must access a broad range of resilience practices in order to maintain and enhance their personal resilience. Being aware of and accessing diverse resilience techniques is referred to as flexibility (Bonanno, 2005), and a proactive engagement with flexibility is necessary in the aftermath of traumatic or stressful events. Some of these resilience practices and techniques include having a sense of agency, cognitive reappraisal, connectedness, controlled breathing, gratitude and appreciation, meaning and purpose in life, and optimism and prospection. While Thompson and colleagues (2020; 2022) have explored each of these practices in depth, including their relationship with awe and overall well-being, they are further explained below.

Having a sense of agency means acknowledging both what one is able to control and those things that are beyond

one's control (Hanson, 2018). It is associated with taking action instead of feeling helplessness or hopelessness, and it is also related to optimism, which is further discussed in this section (Nelson-Coffey et al., 2019; Thompson et al., 2022).

Cognitive reappraisal broadly refers to reinterpreting a situation in a manner that alters the meaning and emotions related to that situation (Xu et al., 2020; Gross & John, 2003; McRae et al., 2012; Southwick & Charney, 2018). With respect to resilience and well-being, engaging in cognitive reappraisal is a critical practice and can be highly effective in regulating both affect and physiological arousal (Buhle et al., 2014). There are many additional benefits to practicing cognitive reappraisal, including potential increases in social connectedness, finding meaning and purpose in life (Southwick & Charney, 2018), improved coping strategies and recovery (Shapero et al., 2019), overall well-being, and life satisfaction. Engaging in cognitive reappraisal can also reduce stress as well as depression and anxiety symptoms (Xu et al., 2020).

Connectedness, for the purposes of this paper and in relation to resilience, refers to our social relationships with others that support an individual's well-being. This type of connectedness has been shown to help reduce and manage stress (Nitschke et al., 2021; Southwick & Charney, 2018) while also contributing to self-worth, self-esteem, and overall happiness (Brown et al., 2020). Connectedness is also positively associated with other resilience-related practices such as altruism, finding meaning and purpose in life, and expressing gratitude (for example, see Suttie, 2017).

Controlled breathing is arguably the most well-known resilience and mindfulness practice (Thompson et al., 2022). Controlled breathing practices are varied and generally involve breathing in a specific and purposeful manner. Many studies have explained the benefits of controlled breathing, which include reducing stress and anger while improving mood, focus, sleeping habits, and overall well-being (for a review, see Thompson et al., 2022).

Gratitude practices are another common resilience practice, whereby the individual recognizes that something good has been received or has happened to them and the source of this is outside of that individual (DeSteno, 2018; Emmons, 2010; Millstein et al., 2016). Practicing gratitude can support a resilient perspective in an individual because the more we practice gratitude, the more that practice contributes to our ability to be optimistic about the future (Kerr et al., 2015). Practicing gratitude can improve one's mental and physical health and strengthen our connectedness with others (Emmons, 2010), and it has a positive impact on brain function and on one's immune system (Millstein et al., 2016; Mills et al., 2015).

Finding meaning and purpose in life (MPiL) can enhance an individual's resilience as it can assist with coping positively with life's challenges (Schaefer et al., 2013; Southwick & Charney, 2018). Possessing MPiL has been described as having order in one's life, pursuing worthwhile goals, and having a general, overall sense that one's life has significance (see Shin & Steger, 2014). Shin and Steger (2014) found that the benefits of having MPiL include happiness, life satisfaction, well-being, and psychological and physical health. Further studies of MPiL have shown that additional benefits can include improvements in sleep quality, prolonged life, social connectedness, and increased cognitive abilities (Alimujiang et al., 2019; Schaefer et al., 2013; Southwick & Charney, 2018).

Possessing optimism, having hope, and looking forward to future events and activities comprise future-oriented resilience practices. In terms of resilience, optimism refers to the belief that one can contribute to change for the better (Reivich & Shatte, 2003). Realistic optimism entails both believing that positive change can occur and taking action to make it happen (Guarnera & Williams, 1987; Hanson, 2018). Importantly, having optimism is a behaviour that can be learned (Schneider, 2001) and that has been associated with overall happiness, success in life, reduced anxiety (see Carter, 2008), and workplace satisfaction (Youseff & Luthans, 2007).

Prospection, like optimism, is another future-facing resilience practice. Prospection entails positive, goal-directed thinking and behaviours and is important for a variety of reasons. Studies have shown that when prompted to think about a future event (compared with a previous event), prospection had a greater impact on an individual's feelings in the current moment (Van Boven & Ashworth, 2007). Thus, reflecting on possible, realistic, future events can have a positive impact on the present moment. MacLeod (2017) explored the evidence-based studies on the benefits of prospection and found that, broadly speaking, prospection can have a positive impact on an individual's psychological and emotional well-being and overall mental health.

Enhancing personal resilience involves possessing a mindset whereby one must be aware of and appropriately use various practices and techniques to help proactively handle potential adverse and stressful events, to support oneself during those events, and to recover post-event. This flexible approach entails engaging in the practices, in addition to awe, mentioned in this section. The next section details how The Awe Project was developed to provide a program that brings all of those practices together, centralized to the experience of awe, to support a person's well-being and enhance their personal resilience.

The Awe Project Explained

The Awe Project, created by the author, was designed to provide participants with evidence-based, awe-inducing videos and resilience-enhancing practices (as noted in the previous section) that are brief, easily accessible, and practical. The program lasts 5 days and involves various resilience practices related to watching a brief awe-inducing video each morning and evening.

There are 10 videos in The Awe Project. The videos were selected based on previous studies of categories that have been shown to elicit awe. These are represented across the 10 videos and include accomplishments, art, music, nature, religious and spiritual moments, space, and social interactions (Allen, 2018; Anderson et al., 2018; Pilgrim et al., 2017; Shiota et al., 2007; Thompson, 2022a).

The program is cohort-based, and participants access the material via mobile devices or computers through a private classroom on the Google Classroom application. It was specifically designed in this manner to support its availability to everyone, regardless of geographic location.

The participants were informed that each of the morning and evening activities should take less than 10 minutes to complete. In addition to the program being designed to be easily accessible through mobile technology, it was also designed to be adaptable to each person's specific situation, living and work conditions, and other life commitments. The

program’s activities are therefore asynchronous, completed at the individual’s own pace within a requested timeframe.

The morning’s content and practices are pre-scheduled and are posted at 5 o’clock every morning. Participants are instructed to complete them before noon, and it is suggested they try to do so as close as possible to when they first wake up. The morning activities involve a 1-minute controlled breathing practice that includes a motion graphic for the participants to follow along with, a short video, and a reflective question. The participants are instructed to answer the questions immediately after watching the video.

The evening content and practices are posted at 6 o’clock in the evening and the participants are requested to complete them at any time prior to going to sleep. Although for this particular cohort, the 1-minute breathing practice was included only during the morning session, it has since been added to the evening session. Similar to the morning instructions, the participants are asked to answer the questions immediately after watching the video.

As already explained, after watching the videos participants are prompted to answer either a single question (a reflection on the video) or, on certain days, a second question as well. Each of the second questions is grounded in a resilience practice designed to build on the first question. The prompted resilience practices are those previously explained: agency, cognitive reappraisal, connectedness, controlled breathing, gratitude and appreciation, meaning and purpose in life, and optimism and prospection.

METHODOLOGY

Phenomenology research methods and, more specifically, IPA methodology, guided the development of this study because it was deemed the most appropriate, as it involves, as described above, a specific experience (the phenomenon of awe), examines a group of people’s experiences of that phenomenon (a specific cohort), and is being studied in a specific context (participating in The Awe Project).

The most frequently utilized method to collect data when conducting a phenomenological study, including IPA, is through interviews, although other sources are also acceptable, for example, data previously collected for a different purpose (Bonner & Friedman, 2011; Creswell, 2007; Frechette et al., 2020; Smith & Osborn, 2003).

For this study, a secondary analysis was conducted of comments made by participants during The Awe Project as well as their feedback from the post-program survey. Secondary analysis of data related to awe is not uncommon in IPA studies. Bonner and Friedman (2011) used secondary data to further examine the subjective and collective accounts of people’s experiences of awe in order to determine themes from individual accounts. In part, Bonner and Friedman’s work motivated and guided this study’s approach.

Themes were established in a manner consistent with previous qualitative research approaches and recommendations, while also taking into account themes that emerged in previous, related awe studies (Bonner & Friedman, 2011; Thompson, 2022a). The methodology of establishing themes is presented further below.

Approval for this study was granted through the author’s Institutional Review Board at Lipscomb University.

DATA SOURCE

The dataset is comprised of a single cohort of 12 participants who took part in The Awe Project in the beginning of 2021. This sample size is consistent with both phenomenological research generally (Groenewald, 2004; Polkinghorne, 1989) and IPA specifically (Eatough & Smith, 2017; Smith & Nizza, 2021). Although there exists a larger dataset of additional cohorts that will be analyzed in future studies (over 20 cohorts comprising approximately 300 participants), the current analysis is an exploratory evaluation of the program and the dataset size is consistent with typical IPA studies (Smith & Nizza, 2021). Moreover, it is also consistent with IPA-suggested approaches in that it is a purposely small, homogenous, selected sample (Smith et al., 2009), where the richness of the data is more important than the sample size (Frechette et al., 2020; Mapp, 2008). It is worth noting, and once again only preliminarily, that the findings in this paper are consistent with a larger dataset of approximately 20 additional cohorts currently under review.

The 12 participants included 6 men and 6 women who had participated in previous resilience training offered by the author. Additional demographic data is provided in Table I below.

Within the law enforcement demographic, the participants work in a variety of settings, including hostage negotiation, patrol, patrol supervision, specialized response unit, and as a detective investigator.

Establishing Themes

This paper’s approach to establishing and presenting the themes was informed by the previously mentioned study conducted by Bonner and Friedman (2011) as well as other studies related to awe and resilience (Thompson & Drew, 2020; Thompson, 2020a; Thompson, 2022a). IPA researchers have cautioned it is not a prescriptive methodology and ultimately needs to be adapted and modified by each researcher (Smith & Nizza, 2021; Smith & Osborn, 2003).

TABLE I Participant demographics

Demographic	n (%)
Location	
United States	9 (75%)
Canada	3 (25%)
Employment	
Law enforcement	6 (50%)
Uniformed member	5
Correctional facility	1
Education	
University	1
High school	1
Law enforcement	1
Psychologist	1 (8%)
Science Researcher	1 (8%)
Nurse	1 (8%)

Consistent with IPA data analysis (Smith et al., 2009; Smith & Osborn, 2003), the findings, their interpretation, and the themes developed by the researcher are interwoven and are supported by extracts from participants' direct accounts of their experiences (in contrast to presenting the results and discussion in separate sections). Similar to previous awe research on secondary data analysis (Bonner & Friedman, 2011), this paper uses multiple extracts to illustrate the perspectives of various participants, which in turn are used to generate a variety of themes.

In qualitative research, this type of "thick descriptions" involves an immersive process of interpreting meaning by providing the participants' detailed accounts (Clark & Chevette, 2017; Denzin, 1989; Geertz, 1973; Mills et al., 2010). Additional qualitative work has described the value of thick descriptions as providing a detailed account of participants' experiences of a phenomenon, enabling the researcher to establish patterns (or themes) and to derive meaning and conclusions from them (Holloway, 1997; Lincoln & Guba, 1985).

RESULTS

Prior to examining the feedback provided by participants on each of the program's videos and questions, this section details program-wide feedback that were used to develop the overall themes.¹ In the post-program survey, the participants were asked a total of 25 questions comprising both Likert Scale responses and open-ended questions. In this paper, the following open-ended questions are examined: "How would you describe The Awe Project to someone?", "How would you describe The Awe Project's impact on you?", "What did you like most about The Awe Project?", and "Anything else you'd like to add?"

Given that the experience of awe is subjective and that this paper seeks to gain a deeper understanding of an individual's perspective on awe while also exploring the themes that can emerge by examining those perspectives collectively, a necessary first step is to explore how each participant described the program and to summarize its overall impact. This first, "global" approach to examining the program must take place prior to obtaining participants' insights into the specific videos and their impact on each participant.

Participants described The Awe Project in various ways, often stating that it helped shape a different perspective for them:

A 5-day interactive program that helps you reset your mindset at the beginning and the end of your days.

A set of daily activities to help you set positive intentions and acknowledge positive experiences for [the] long and short term.

This perspective shift is related to awe promoting curiosity and being described as an epistemic emotion; experiencing awe can both reveal gaps in knowledge and promote learning (Gottlieb et al., 2018; Krogh-Jespersen et al., 2020; McPhetres, 2019; Cuzzolino, 2021): "[A] 5-day project that makes you realize that there is much more to this world and this universe than you could possibly imagine."

In addition to experiencing a perspective shift, the following explains the relevance of feeling "small," which is frequently associated with awe and is widely cited in the research (Allen, 2018; Piff et al., 2015; Reinerman-Jones et al., 2013; Shiota et al., 2017; van Elk et al., 2019). Consistent with the research, the sense of feeling "small" relates to reappraising various aspects of life, especially those that are negative:

It helps to remind us that we need to take more time to evaluate our individual situations in a bigger picture. At times we tend to only see the negative and don't realize that our problems are small in comparison to others and also small in comparison to all the "good" around us.

Participants described how the program impacted them in various, positive ways, including feeling grateful and humble:

These 5 days made me humbler and more appreciative of what I have.

Made me appreciate and put things into perspective.

Part of the program's positive impact was how the participants plan to approach life going forward: "It has left me in a more positive frame of mind and inspired to work to stay more positive."

The following participant summed up the program's impact as vast and complex, like awe itself (Keltner & Haidt, 2003; Thompson, 2022a):

I loved every part of this project... A program that holds you accountable for taking 5 minutes each morning and each evening for yourself. During those moments, you are reflecting on different things and different moments that your mind brings you to, and we are given the opportunity to briefly discuss them with the class... inspiring to connect with others and their backgrounds and interesting to read everyone else's perception of what their awe is.

Data analysis identified 18 themes related to participants' experiences of awe and resilience practices. Although IPA studies can be limited to fewer themes, Smith and Nizza (2021) caution, "these numbers are indicative and not prescriptive, and the goal should be quality, not quantity" (p. 48). Hefferon and Gil-Rodriguez also acknowledge there is not a strict rule for establishing a set number of themes (2011). Finally, and more broadly as this paper is also guided by general phenomenological methodologies, a fixed number of recommended themes is not identified or suggested (Creswell, 2007; Moustakas, 1994). Table II identifies these overall themes, based on the analysis of the replies and comments, and they are further examined in the Discussion section below.

¹It is suggested that readers who are interested in participating in The Awe Project stop reading at this point. The following sections of the paper share the themes and feedback from previous participants and detail what occurs during each video. It is the author's (who is the creator of the program) belief that if the reader continues and is aware of the themes, comments, and details of each video and then participates at some point in the future, they will not have the intended experience.

As described in the previous section, the themes emerged through an analysis of the data in a manner consistent with various qualitative methodologies, mainly IPA. Previous awe research (Bonner & Friedman, 2011; Cuzzolino, 2021; Thompson, 2022a) provided a further framework in which to analyze the data for the purpose of identifying themes.

TABLE II Awe project themes and examples

Theme	Example
Accomplishment	"Wow! Talk about overcoming obstacles."
Ambiguity and uncertainty	"Even though I wasn't exactly sure what I was seeing, my attention was focused on the beauty of it."
Cognitive reappraisal	"Reminded me that there is awe all around you every day, and try to pause and take it in."
Connectedness ¹	"Just watching these videos and commenting on them afterwards shows the power of experience; shared experience."
Curiosity	"The video again reminded me there is so much out there to explore and experience."
Gratitude	"Another amazing video; makes me appreciate where I live that much more."
Humility/humble	"Nature can remind us that we don't control everything."
Meaning and purpose in life	"It's been a particularly busy week for me, and this shared, meaningfully productive experience added something meaningful to it."
Mindfulness ²	"I was so entrenched in this video that I actually said AWE, while watching it."
Open-mindedness	"I enjoy the videos and reading everyone's comments and points of view on the videos we have watched."
(Other) Positive emotions	"I had feelings of joy and warmth."
Profound	"Enlightening."
Prospection and optimism	"I feel motivated to never give up and not to quit when life gets hard."
Physical sensations	"Watching that gave me shivers throughout the entire beginning and end!"
Reduce anxiety/stress/worry	"I couldn't help but feel like anything I may be going through, compared to watching that, is maybe not so huge."
Self-transcendence	"I have really enjoyed the videos that highlight nature's beauty, and have even sent links to some of my friends."
Small self	"Realizing how small we are in comparison to the universe forces me to pause and change my perspective."
Vastness	"It highlights the vast and beautiful space of this world we live in."

¹ Connectedness to others in the cohort, to other people generally, and with nature.

² Mindfulness, for the purpose of this study, includes time feeling altered, feeling as if time slowed, and being present in the moment.

DISCUSSION

The previous section established the themes and overall programmatic feedback from The Awe Project. In this section, those themes and "global" comments are further examined and discussed. For practical purposes, the section is divided into subsections, one for each video. Structuring the data and themes via each video, in contrast to presenting it in sections separated by themes, invites the reader to experience the program in a similar manner as the participants.

Day 1 Morning

The video that starts the program comprises various clips and time-lapse moments of Yosemite National Park during the day and evening. A theme that was immediately recognized in this video and that persisted throughout the program was the depth or intensity of participants' positive experiences while reflecting on the videos (underling added):

I was "wowed" by the video. It was peaceful, breathtaking and inspiring.

That was like an overdose of awe!

Watching the video was pretty awe-inspiring in itself... It's sort of like a humbling grandiosity.

Among the many positive emotions participants experienced was a calming effect: "This video was calming and soothing to watch; helped soothe and calm nerves and anxiety before [work]."

In addition to positive emotions, the video also evoked a common experience of awe, the altering of time (Rudd et al., 2019), which, for the purpose of establishing themes, was considered part of mindfulness. This form of mindfulness was often described as participants taking the time to pause and, in certain circumstances, notice the variety of details in the video:

Made me stop and pause about how majestic the world and life is.

I focused on a few things: the overtures, the vastness of the landscape and bed of stars.

An additional consistent theme associated with this video was the sense that it created a curiosity and yearning to learn and experience more of the world. Once again, this resonates with awe being described as an epistemic emotion that raises awareness of a person's limited knowledge and motivates them to learn and experience more (McPhetres, 2019): "Watching the video is also prompting me to consciously plan something I think will be awe-inspiring very soon."

The following participant acknowledges the challenges that they will face with respect to this yearning and how they will not let it hinder them. This type of acknowledgment and approach is critical to enhancing personal resilience and is often referred to as acceptance (Southwick & Charney, 2018): "The video again reminded me there is so much out there to explore and experience. I may not become a rock climber and scale a mountain. That won't stop me from taking in the world in a different perspective."

Despite this initial video being only 3:58 minutes long, the participant's comments illustrate that it was still able to evoke numerous awe-related emotions as well as allow them to engage in critical resilience practices such as acceptance and mindfulness.

Day 1 Evening

The second video in The Awe Project is a short section of a longer video that covers the journey of a man traveling up to the edge of space (127,852 feet into the stratosphere) and then leaping out to return back to Earth, breaking the sound barrier during free fall at a speed of 843.6 miles per hour. At the time, this feat broke a world record, which is why the video was selected as illustrating accomplishments described as potentially eliciting awe (Walker & Gilovich, 2021). Moreover, as expected, and as validated from the feedback, this video evoked various intense emotions, including uncertainty and ambiguity, two feelings that have been associated with awe (as previously mentioned) and resilience (Iacoviello & Charney, 2014; Southwick & Charney, 2018).

Participants were asked to share what they felt during the video and especially at the end. Again, as expected, the emotions shared at different stages of the video were varied. This second video was the first to have an additional question that prompted the participants to reflect on and share another resilience-related practice. All subsequent videos also had an additional question. In this first instance, participants were asked about something that had made them happy that day and why it had done so.

With respect to the first question, the intensity and depth of emotions experienced at different points in the video were acknowledged by participants:

That was incredible to watch and what a mix of emotions in such a short time!! I cannot imagine the panic that he and onlookers felt watching him spin, then feeling like he was going to pass out, to minutes later: relief, happiness and pride!!

Watching that gave me shivers throughout the entire beginning and end! In conclusion, I felt relief.

The participants also acknowledged the person's sense of accomplishment, which has previously been established as eliciting awe: "It was pretty amazing to see that and imagine what a sense of accomplishment he must have had."

Interestingly, and possibly because they had just watched a video on personal accomplishment, some participants reflected on accomplishments (both their own and someone else's) with respect to the second question, which asked about something that had made them happy that day:

One thing that made me happy today was cleaning out the crawl space under our basement stairs. Happy when it was done! Much like the video, it was nerve racking at the beginning, but I did feel a sense of accomplishment when it was done!

Something that made me happy today was receiving a text from our daughter's teacher commending her on her abilities with virtual learning, leadership skills and

willingness to help others without being asked. Proud mama moment – a great thing to read in the middle of a very busy shift... that was my awe moment of the day :). Despite dealing with [work issues], my phone buzzed to remind me of what was really important in my life: my family!

The above reflection on someone else's personal accomplishment demonstrates the interconnectedness between experiencing awe and resilience and the corresponding traits associated with both. In this case, it shows the relationship between connectedness, self-efficacy, positive emotions such as joy and happiness, and cognitive reappraisal.

Day 2 Morning

The third video is from the movie *Tree of Life* (Mallick, 2011), which depicts the creation of the universe and is accompanied by music from "Lacrimosa," from Mozart's 1791 *Requiem*. This particular clip was selected for several reasons. To begin, it depicts images of the universe known to elicit awe (Allen, 2018). Next, it was also anticipated that it would elicit different responses from each of the participants. In addition, as the video does not explain what is occurring, it can possibly create confusion and be visually jarring for the viewer. Finally, the music can add a further emotional depth and intensity.

Participants validated each of these hypotheses in their comments and responses to each other. The following participant did not enjoy the clip: "When I watched that video, unlike the others, I didn't enjoy it as much. I found myself questioning if this is real or not."

Although the comments below share that perspective of uncertainty with what they were watching, these participants were also able to find something positive or meaningful to take from it while also touching on additional themes:

Even though I wasn't exactly sure what I was seeing, my attention was focused on the beauty of it.

The clip itself is pretty mystifying, but it's something I can't help but marvel at... I find the colors to be alluring... All-in-all, again, this made me think on the vast, unknowable nature of the universe and the sublime.

The following participants explained their positive experiences from the video:

I found it very relaxing. In fact, I believe I could go to sleep watching that video. Made me feel like I was floating with no worries.

There was a calmness I felt during the first part of the clip. I felt small in comparison to the universe.

However, some found the music, which generally has been described as eliciting awe (Pilgrim et al., 2017), unfavourable:

I know the music was meant to enhance the visual, but for me it detracted.

I... do not feel like the music coincides. I agree with [name]: not my favorite one.

A common theme shared by participants was the seemingly contradictory aspects of the video, which also captivated them. These comments align with common awe themes, such as a sense of time being altered, mindfulness, and again, being able to handle uncertainty:

Incredibly mesmerizing, especially with the accompanying music. Beautiful disasters.

That was intense and beautiful at the same time... the visual was amazing and put me in a trance.

This video, the third in the program, was designed to elicit awe as well as common corresponding experiences, such as feeling small, sensing a vastness, time being altered, mindfulness, calmness, a need for accommodation, identifying gaps in knowledge, and beauty. Attributes of resilience were also revealed through the responses to the videos, including reframing and reappraisal, enhanced focus, dealing with elements that are beyond one's control, and, once again, mindfulness.

Day 2 Evening

The fourth video of The Awe Project was of a tulip farmer riding a harvesting machine and included various aerial perspectives displaying vast fields of different coloured tulips. Overall, responses from participants were positive, with the themes once again emerging based on the calm-evoking feelings and vibrancy of the colours, among other factors.

The following participants explained the positive emotions they experienced while watching the video:

I enjoyed this video; tulips are such a beautiful flower with their vibrant colors. I had feelings of joy and warmth.

I just thought of how vast the fields were... and of course the colors were amazing.

Many participants connected the video with personal, everyday moments they had experienced. This can be examined as both a type of cognitive reappraisal (seeing a seemingly unmemorable event as more memorable) and accommodation of the vastness they were witnessing by relating it to something they had previously experienced:

Oddly enough I thought of the small flower displays I often see in Costco, and how there is SO much more going on with these flowers!!! LOL, is that strange? Maybe there's a message there. Take the time to really reflect on things!?

Loved the organized lines LOL... reminded me of watching [their spouse] cut our lawn in perfect straight lines, the fragrant fresh scent of warm months.

This participant further demonstrated being engaged in cognitive reappraisal and finding beauty in something they previously did not care for:

Perspective. I am not a huge tulip fan. Watching the video and seeing the colours and the vast amount of tulips

really makes them beautiful. I am also amazed at a farmer's ability to plant crops and harvest in what appears to be such straight lines. Again, perspective.

The following two participants expanded on the value of perspective and how it filled a gap in their knowledge:

Thanks for expanding my knowledge, as you really don't know what you don't know.

Enlightening. I've never seen such fields of tulips, or even thought about them. Beautiful.

This video offered participants an opportunity to experience something they all would have come across ordinarily at various points in their lives (tulips) and to experience it differently. With this video, and based on their replies, participants were able to experience awe in a profound way as an extraordinary response to something ordinary (Graziosi, 2018).

Day 3 Morning

During the development of the program, a concern arose that during the halfway point in the program (Day 3's videos, videos 5 and 6 of 10) participants could experience awe-fatigue. To examine whether this happened, another landscape-based nature video with vast aerial footage and time-lapse clips was shown on the morning of Day 3.

In the text introducing the video and that day's questions, participants were cautioned to try and avoid comparing this video with previous ones. The concerns of participants undergoing awe-fatigue were alleviated, with many sharing intensity-rich, time-captivating, positive emotions in response to the video:

I was so entrenched in this video that I actually said AWE, while watching it.

Another amazing video, makes me appreciate where I live that much more... I really enjoy the videos, thank you.

The second question asked participants to engage in another cognitive reappraisal type of reflection. Much in the same way the participants were challenged to avoid a possible pitfall of comparing this video with the first video on Monday morning, they were once again challenged to think of a past event that seemed ordinary but that now, upon further reflection, was filled with awe:

It reminded me of traveling on planes – I always choose the window seat so I can look at what we're flying over, which may be thought of as ordinary to those who fly often. However, I think flying is such an amazing opportunity to take a moment to appreciate and reflect on our relationship to nature and think of ways to preserve its beauty.

This video made me think of how fast life is and to remember to try and enjoy it as much as possible. Try not to overlook the beautiful things because there are so many right in front of you. When I was 8 years [old] my father took me to Manhattan for the day. While we were

there, we went to the top of the Twin Towers. I remember looking down at the City at how small the people and cars were. I'm in awe now thinking about it.

The positive reflections were not limited to traveling or trips to places far away. The following participants reflected on the “ordinary” of both things and people close to them that also evoked a sense of gratitude:

This made me appreciate where I live. I'm next to the Rocky Mountains and I have beauty at my doorstep that I have taken for granted.

The video made me think of how telling or moving a specific detail can be, whether big or small. It made me think that connecting with or looking into the eyes of a loved one can generate a similar feeling to the one I received while watching the video.

This video's corresponding questions allowed the participants to experience awe from yet another common elicitor of awe: nature. Additionally, themes continued to be emphasized, including gratitude, profoundness, positive emotions, and mindfulness.

Day 3 Evening

The sixth video in The Awe Project was used to elicit awe through a narrated story of personal triumph and accomplishment, which previous research has shown to elicit awe (Walker & Gilovich, 2021). The video is narrated by Nicholas Vujicic, a man who has tetra-amelia syndrome (he was born without arms or legs). In the video, he describes what it was like suffering from this syndrome, how it led to him having suicidal thoughts as a child, and his life's achievements and positive moments, including meeting his wife and giving motivational speeches.

Many of the participants shared how they were not only moved by his story, but it had a further ripple effect on their lives with respect to their own grit and personal striving:

I feel motivated to never give up and not to quit when life gets hard.

Watching this video made me feel inspired because it was clear to see his spirit for life.

Participants also mentioned that the video helped realign their perspective, especially with regard to facing challenges: “Just when you think we have obstacles in life and watching Nick's story made me emotional. It also motivates me to look at the positive and appreciate what I have.”

Lastly, this participant acknowledged that perspective and resilience can often be about not necessarily changing what is occurring, but instead changing how one perceives it, which includes acknowledging both the negative and positive aspects of one's life: “Some focus on the bad aspects and forget the little things that are so important. I suppose that ‘awe’ helps us see those little things clouded by the static of life.”

Reflecting on gratitude and connectedness are two critical resilience practices that can support an individual's

well-being (Emmons, 2010; Southwick & Charney, 2018). Importantly, in addition to their positive attributes, both gratitude and connectedness can also counterbalance the common thoughts and feelings of people who suffer from depression and have suicidal thoughts. This includes feeling alone, helpless, and isolated from others (Emmons, 2010; Suttie, 2017).

Based on this knowledge, the second question prompted participants to share with the group one nice thing that someone did for them that day and to further explain why they picked it and what it felt like. Adding the last two elements was designed to encourage the participants to spend more time reflecting on what it was and the corresponding emotions, as identifying one's emotions contributes to personal resilience and overall well-being (Boyes, 2018; Lieberman et al., 2007).

Participants repeatedly mentioned how laughter was an integral part of their gratitude reflection. Laughter and humour have been shown to be important aspects of resilience (Martin, 2019; Lonczak, 2022; Peterson & Seligman, 2004; Ruch et al., 2010):

Today [a co-worker] made me laugh so hard I was crying. It made me feel so good to laugh that hard. I picked that because some people focus on the bad aspects of life and forget the little things that are so important.

Some participants spoke about the impact of what could easily be viewed as trivial, ordinary, or insignificant:

My wife bought me some snack favorites when she went shopping :-). I picked this because though she spent all day working and has been recouping from an injury, she still thought to do that. What did it feel like: It simply made me happy.

Aside from attempting to elicit awe, this video and corresponding questions helped participants with their own motivation while also allowing them to reflect on moments of gratitude, reappraisal, appreciation, and accomplishments.

Day 4 Morning

The eighth video in The Awe Project involved a motion video graphic depicting the size of the Earth in relation to other planets, the sun, and the universe. Not surprisingly, “smallness,” a common theme associated with experiencing awe (Allen, 2018), was mentioned by participants: “Seeing the visuals of the comparisons really puts into perspective how ‘small’ we are. It's mind boggling, really!”

The following participants also acknowledged the “smallness” that was evoked while further connecting it with meaning and purpose in life. Having a sense of purpose and meaning in life has been shown to support an individual's well-being (Alimujiang et al., 2019; Gander, 2019; Southwick & Charney, 2018). The following statements are also related to how awe can have a self-transcending impact and encourage people to look beyond themselves (Liu et al., 2021; Wong, 2016; Yaden et al., 2016):

We are so small in comparison and yet have so much to give.

I knew the earth was so small but didn't realize how small, wow! Even small we have so much beauty and so much to offer.

Participants explained how the videos have allowed them to recall previous events and reflect on perceiving them differently. This type of cognitive reappraisal has previously been associated with experiencing awe (Allen, 2018; Yaden et al., 2017), while it has also been shown to reduce activity in the default mode network (DMN) (Tabibnia, 2020; van Elk et al., 2019). Such a reduction, in certain circumstances, has been associated with supporting a person's overall well-being (Miyagi et al., 2020; Tabibnia, 2020; van Elk et al., 2019):

Videos like this make me realize how meaningless and minuscule the little things that go wrong are. I shouldn't be angry when someone, for example, cuts me off in traffic; realizing how small we are in comparison to the universe forces me to pause and change my perspective.

Lastly, participants mentioned the time-altering, mindfulness effect the video had on them: "Very interesting video. The more it went on, the more intriguing I thought it was."

The second question asked participants what they liked about the program so far and whether anything had surprised them regarding the program. The mindfulness and time-altering aspect of awe were again frequently mentioned by participants, especially with respect to the program, assuring them of the time dedicated each day to look after their well-being:

I like that Awe Project... it has encouraged me to take a moment and pause my busy lifestyle for my wellness.

I'm really happy to undertake this project because it ... made me commit and be accountable for moments for myself during the day.

The following participants also connected this daily "pause" with their appreciation of the program, including the breathing practices:

I love that I am able to take [a] pause in the morning and center myself with the breathing exercise. And at night reconnect and get grounded before heading to bed.

I've looked forward to beginning and ending my day with this project. I like the combination of the breathing, then video, with a reflection to end. It gets you thinking in different ways.

Additionally, The Awe Project had an impact beyond the specific moments dedicated to it. Here, participants explained how it affected them throughout their day: "I love watching the videos every day. It definitely makes me think more about pausing and taking things in throughout the day."

These participants included the self-transcendental impact the program had with respect to others:

I have really enjoyed the videos that highlight nature's beauty, and have even sent links to some of my friends. I

will keep track of these, because it's such a wonderful reminder of how beautiful the world we live in is.

I'm also getting myself back into the habit of finding the awe moment of the day to help ground me, as well as help me to be even more empathetic to day-to-day things.

Lastly, multiple resilient terms emerged with respect to the second part of the question, which asked participants what surprised them the most about the program. They noted the calming effect the program created and also evoked gratitude: "How a few minutes in my day can make me feel calm and grateful for what I am able to experience."

The resilience concepts and awe themes of open-mindedness, empathy, connectedness were shared by the following participants:

One thing that surprised me is how much I enjoy writing and reading the comments.

One thing I've been surprised by (and enjoyed) is the variety of experiences people have described... it's been nice to hear how awe-inspiring the experience has been for others.

I knew everyone would have different perspectives and ideas on these videos, but I was surprised at just how different everyone's interpretations actually were.

Even though the interactions were occurring asynchronously through technology, the participants' comments confirmed that connectedness still took place. As previously mentioned, connectedness is a critical aspect of personal resilience and overall well-being. The following participant acknowledged this and noted the ability of technology to contribute to connectedness:

One thing that has surprised me most about the project is how connected to the rest of the group I feel even though we are not seeing one another. I think this is so because we are all sharing in the same experience at the same time. Again, another reminder of how connected we really are.

The question asking participants what surprised them about the program was included first because "surprise" is associated with experiencing awe (Allen, 2018), so this prompt allowed them to expand on something that is often associated with experiencing awe. Second, it was anticipated that connectedness might be mentioned as something the participants appreciated about the program; therefore, this question also provided an opportunity for further self-reflection and also enhanced group synergy. Lastly, the video's eliciting of a sense of "smallness" further allowed connectedness to both support common feelings of awe and offer participants an opportunity to engage in related resilience practices.

Day 4 Evening

Day 4's evening video consisted of two different video clips. The first video comprised footage of a powerful rainstorm over a body of water surrounded by mountains. The rain came

down quickly and intensely and was contained in a limited area. The second video was from a scientific experiment of a droplet of water falling multiple times at different speeds, in slow motion, and hitting sand, resulting in a ripple effect in the sand. Participants were asked to share a reflection on each of the videos. Additionally, they were asked to also reply to someone's comment from that day or any other day's postings.

Multiple participants shared a variety of positive emotions they experienced while watching the first video, with differing levels of intensity:

The first video took my breath away.

The first was pretty astounding...

Additional comments included reflecting on the impact of nature: "Nature can remind us that we don't control everything and there is a great natural force around us." This last comment demonstrates how experiencing awe, especially with nature, can evoke the resilience concept of acceptance. Acceptance, in terms of resilience and well-being, refers to acknowledging that certain things are beyond our control and coming to terms with that.

The second video also evoked positive emotions, some of them intense: "I couldn't help but exclaim, 'Wow, that was so cool' for the second one."

Notably, participants shared time alteration (slowing down) reflections that induced gratitude and appreciation, as well as self-transcendent comments, with respect to the second video: "The second video made me think of how important it is to slow things down and take a moment to realize our impact on others."

Lastly, awe has been previously shown to help enhance people's focus (Danvers & Shiota, 2017; Rudd et al., 2012), as acknowledged by this participant: "Second video reminds me of attention to detail."

Both videos also allowed participants to reflect and make a metaphorical connection between the video and their everyday lives: "These videos reminded me how much happens around me that I don't see or notice... It makes me feel more connected to the Earth to see videos like this."

With respect to the second question, some participants replied to previous comments made by others in relation to the two videos they watched that evening. Comments included agreeing with previous postings with respect to the positive aspects of the two videos and also the fact that the videos prompted a reflective moment: "I agree with what you said. The videos make me feel like reflecting. They induce deep thought."

The second question, involving asking the participants to reply to others, was created to potentially promote certain elements of resilience. These include, once again, connectedness, acceptance, and evoking positive emotions. Aside from the clear eliciting of connectedness that can be created through the very act of replying, connectedness could further be heightened by both the person replying and the recipient of the reply by an awareness that they both share similar viewpoints. Sharing a similar perspective with someone has been shown to contribute to rapport building and trust between people (Albarracín, 2009; Thompson, 2015), while also supporting an individual's sense of community and well-being (Southwick & Charney, 2018; Thompson et al., 2022).

Day 5 Morning

The ninth video in The Awe Project is a trailer for *Nature's Wonder*, a 2014 film by Louie Schwartzberg. The first question asked for participants' thoughts on the video while the second one prompted them to share something "awe-inspiring" they wanted to do at some point before the end of the year. This questioning prompt is known as an optimism and prospection practice (Bulley & Irish, 2018; Southwick & Charney, 2018; Thompson et al., 2022). Prospection is related to the resilience practice of optimism, or looking forward to something in the future that is achievable (Allen, 2019; MacLeod, 2017).

Given that this video was again related to nature, participants shared previous themes, which included positive emotions such as a sense of calmness, beauty, self-transcendence, and connectedness:

The video had me thinking we are all connected and contribute to the beauty of our lives. It doesn't matter how big or small. We all have something to offer.

Just watching these videos and commenting on them afterwards shows the power of experience; shared experience.

The following participant noted this video's self-transcendent aspect of awe: "One line from the video struck me: 'Protect what you love.' I oftentimes forget how vast, expansive, and beautiful our world is, and it's a great reminder that we need to do what we can to preserve nature."

The video also provoked some of the participants to reflect on their gratitude and appreciation for their current surroundings, as well as beyond their local area:

Loved it! Reminded me that there is awe all around you every day, and try to pause and take it in.

The video reminded me that there is so much more to see on this Earth that I need to travel more.

Notably, the redundancy of the nature-based videos was not perceived by participants as repetitive or mundane, and nor did they view it in an unexciting manner: "As all the videos, this [one] was just as beautiful as the last."

As much as The Awe Project was designed to elicit awe and other resilience-related attributes through brief interventions, the program's design was also intended to go beyond the few minutes of practice each day. From that perspective, the second optimism and prospection-related question prompted the participants to share something specific that they are looking forward to doing that is awe-inspiring. Many responses were related to travel and the outdoors: "One awe-invoking thing I am looking forward to doing this year is hiking to and experiencing the Havasu Falls in Arizona."

Connectedness to both nature and others in a local setting was also shared: "One awe-invoking thing I look forward to is going surfing with my kids. Not just riding the waves myself, but sitting back and enjoying watching them."

The following participant demonstrated the yearning for traveling somewhere exotic, while also demonstrating a key trait of resilience: an acknowledgment of having to adapt, especially with respect to something beyond their control

(e.g., the COVID-19 pandemic): “One awe-invoking thing that I hope still happens is a trip to Bora Bora. Fingers crossed we can travel come late summer. If not, I’ll have to find a beach nearby and enjoy all that it has to offer.”

Another participant was specific not about the location, but regarding their perspective and approach to their future experiences: “I’m feeling inspired to start paying attention to the little things again – so the awe-invoking thing I’m looking forward to this year is taking time to notice and appreciate small moments.”

The video and questions for Day 5 enabled participants yet again to experience awe through a short clip involving nature while also prompting them to look beyond The Awe Project and reflect on the present moment and the future. Mindfulness, or being fully present in the current moment, and also being prospective were once again two themes (among others) that were revealed by analyzing the data for this assignment.

Day 5 Evening

The last video of The Awe Project was of aerial footage of people riding on a microflight, a small flying machine that is in fact a glider with one rear propeller. The pilot, Christian Moullec, takes passengers on a flight around Mont Saint Michel, France, and is able to bring the microflight close enough to flocks of flying geese so that passengers are “flying with” them. Moreover, passengers are close enough to actually touch and even pet the geese while the birds remain undisturbed. The flight has been described as an “extraordinary, unforgettable, almost spiritual experience” (Fly with Birds, n.d.).

Awe Project participants were asked to share a reflection on the video, and the second question prompted them to provide anything they wanted to share with the group about participating in the program now that it had ended.

The concept of teamwork was something many of the participants reflected on with respect to the video. From a resilience perspective, this is associated with connectedness and how it is important to be surrounded by like-minded, gritty people (Duckworth, 2016; Thompson, 2020c):

I thought of teamwork and leadership as well watching the video and also the concept of working towards a goal. I thought of how working hard can set the example for others to try and become better versions of themselves. Wow... all that from those birds!

In the military, I worked on jet fighter aircraft. I was always in awe of the planes flying in close formations. The birds are more beautiful and peaceful but also remind me of the teamwork and discipline necessary to fly beautifully but without running into each other.

With respect to the second question, an expression of gratitude for participating in the program was frequently noted:

Thank you for giving us this experience.

Thank you again for the opportunity.

Participants also shared their gratitude with respect to having the opportunity to interact and connect with the other participants:

I feel like it was nice getting to know everyone at least a little.

I really enjoyed this program. I looked forward to watching the videos and reading all the comments every day.

Mindfulness and a sense of time being altered were also expressed as something participants enjoyed. This is again related to what previous research has described as an important pathway to resilience and overall well-being (Tabibnia, 2020):

Over the 5 days this gave me a chance to just enjoy these videos and “Be in the moment.” Not worry about the things I had to do, but just be.

Thank you for giving me a little time each day to be outside of myself and in another world away!

Lastly, some participants shared the lasting effect the program will have on them:

This week reminded me I need to take that time for myself each day... even if it’s only 10 minutes!

I find myself a bit more grounded and calmer. I plan on continuing some breathing exercises in the morning. I... completely agree, this has been amazing.

The final video was selected to provide participants with one last opportunity to feel awe as well as the many other, related, well-being and resilience attributes, such as connectedness, mindfulness, and gratitude.

CONCLUSION

This paper explored the subjective experiences of awe for both individuals and a specific group of participants who took part in a program designed to elicit awe. It also allowed participants to engage in other practices designed to enhance well-being and personal resilience. The Awe Project was motivated by a translational research approach: identify a collection of specific, evidence-based practices supported by empirical data and develop a program in a manner that is accessible, practical, enjoyable, and, most importantly, effective. A program evaluation of pre-existing data using IPA revealed 18 emerging themes, which further supported the existing previous themes and practices related to both experiencing awe and enhancing personal resilience. Based on the individual comments of participants, an analysis of the comments, and the emergent themes, it was found that The Awe Project was able to support an individual’s personal resilience and ability to consistently elicit awe.

These findings are consistent with the preliminary analysis of a much larger dataset, yet more work is needed to support these findings. The larger dataset can be used to examine the findings uncovered here to explore whether the themes are consistent or whether additional themes emerge. Additionally, analyzing the awe narratives that were collected from participants as part of the pre-program survey can further contribute to a more in-depth IPA study. Finally, future studies can explore the effectiveness of The Awe Project

in a variety of other ways, including a longitudinal study, using both qualitative and quantitative survey instruments, to determine whether the program had a lasting impact on participants. To support replicability of the findings here as well as with future studies, it is recommended that studies also be conducted by researchers other than the author (who developed the program).

Lastly, it is only fitting to conclude with the words of a participant:

The thing I've liked most about The Awe Project is it's reminding me to take that time for myself. It's reminding me also to reflect on situations and spend a bit more time analyzing things. What's surprised me the most is the reminder that we can always find time in our day to focus on ourselves. It's very easy to get out of that routine, but so important to make self-care a priority.

CONFLICT OF INTEREST DISCLOSURES

The author has no conflicts of interest to declare.

AUTHOR AFFILIATIONS

*Department of Psychiatry, Columbia University Irving Medical Center, New York, NY, USA; College of Leadership and Public Service, Lipscomb University, Nashville, TN, USA.

REFERENCES

- Abbott, A. (2021, February 3). COVID's mental-health toll: How scientists are tracking a surge in depression. *Nature*. <https://www.nature.com/articles/d41586-021-00175-z>
- Albarracín, D. (2009). *People sometimes seek the truth, but most prefer like-minded views*. American Psychological Association. <https://www.apa.org/news/press/releases/2009/07/like-minded>
- Alimujang, A., Wiensch, A., Boss, J., Fleischer, N. L., Mondul, A. M., McLean, K., Mukherjee, B., & Pearce, C. L. (2019). Association between life purpose and mortality among US adults older than 50 years. *JAMA Network Open*, 2(5), e194270. <https://doi.org/10.1001/jamanetworkopen.2019.4270>
- Allen, S. (2018). The science of awe [white paper]. Greater good science center at UC Berkeley. https://ggsc.berkeley.edu/images/uploads/GGSC:JTF_White_PaperAwe_FINAL.pdf
- Allen, S. (2019). *Future mindedness*. Great Good Science Center at U.C. Berkeley. https://ggsc.berkeley.edu/images/uploads/White_Paper_Future-Mindedness_LR_FINAL.pdf
- Anderson, C. L., Monroy, M., & Keltner, D. (2018). Awe in nature heals: Evidence from military veterans, at-risk youth, and college students. *Emotion*, 18, 1195–1202. <https://doi.org/10.1037/emo0000442>
- Anderson, C. L., Dixon, D. D., Monroy, M., & Keltner, D. (2020). Are awe-prone people more curious? The relationship between dispositional awe, curiosity, and academic outcomes. *Journal of Personality*, 88(4), 762–779. <https://doi.org/10.1111/jopy.12524>
- APA (n.d.). *Self-transcendence*. APA Dictionary of Psychology. <https://dictionary.apa.org/self-transcendence>
- APA (2020, January 1). *Building your resilience*. <https://www.apa.org/topics/resilience/building-your-resilience>
- Arcangeli, M., Sperduti, M., Jacquot, A., Piolino, P., & Dokic, J. (2020). Awe and the experience of the sublime: A complex relationship. *Frontiers in Psychology*, 11, 1340. <https://doi.org/10.3389/fpsyg.2020.01340>
- Bai, Y., Ocampo, J., Jin, G., Chen, S., Benet-Martínez, V., Monroy, M., Anderson, C. L., & Keltner, D. (2021). Awe, daily stress, and elevated life satisfaction. *Journal of Personality and Social Psychology*, 120: 837–860. <https://doi.org/10.1037/pspa0000267>
- Bethelmy, L. C., & Corraliza, J. A. (2019). Transcendence and sublime experience in nature: Awe and inspiring energy. *Frontiers in Psychology*, 10, 509. <https://doi.org/10.3389/fpsyg.2019.00509>
- Bonner, E. T., & Friedman, H. L. (2011). A conceptual clarification of the experience of awe: An interpretative phenomenological analysis. *The Humanistic Psychologist*, 39(3), 222–235. <https://doi.org/10.1080/08873267.2011.593372>
- Boyes, A. (2018). *The healthy mind toolkit. Simple strategies to get out of your own way and enjoy your life*. TarcherPerigee.
- Brown, K. M., Hoyer, R., & Nicholson, M. (2012). Self-esteem, self-efficacy, and social connectedness as mediators of the relationship between volunteering and well-being. *Journal of Social Service Research*, 38(4), 468–483. <https://doi.org/10.1080/01488376.2012.687706>
- Buhle, J. T., Silvers, J. A., Wager, T. D., Lopez, R., Onyemekwu, C., Kober, H., Weber, J., & Ochsner, K. N. (2014). Cognitive reappraisal of emotion: a meta-analysis of human neuroimaging studies. *Cerebral cortex*, 24(11), 2981–2990. <https://doi.org/10.1093/cercor/bht154>
- Bulley, A., & Irish, M. (2018). The functions of prospection – variations in health and disease. *Frontiers in Psychology*, 9. <https://doi.org/10.3389/fpsyg.2018.02328>
- Büssing, A. (2021). Wondering awe as a perceptive aspect of spirituality and its relation to indicators of wellbeing: Frequency of perception and underlying triggers. *Frontiers in Psychology*, 12, 738770. <https://doi.org/10.3389/fpsyg.2021.738770>
- Carter, C. (2008, April 7). *The benefits of optimism*. The Greater Good Science Center at U.C. Berkeley. https://greatergood.berkeley.edu/article/item/the_benefits_of_optimism
- Chen, S. K., & Mongrain, M. (2020). Awe and the interconnected self. *The Journal of Positive Psychology*, 1–9. <https://doi.org/10.1080/17439760.2020.1818808>
- Chirico, A., & Yaden, D. B. (2018). Awe: A self-transcendent and sometimes transformative emotion. In: H. Lench, (Ed.) *The function of emotions*. Springer, Cham. https://doi.org/10.1007/978-3-319-77619-4_11
- Chirico, A., Yaden, D. B., Riva, G., & Gaggioli, A. (2016). The potential of virtual reality for the investigation of awe. *Frontiers in Psychology*, 7, 1766. <https://doi.org/10.3389/fpsyg.2016.01766>
- Chirico, A., Cipresso, P., Yaden, D. B., Biassoni, F., Riva, G., & Gaggioli, A. (2017). Effectiveness of immersive videos in inducing awe: An experimental study. *Scientific Reports*, 7(1), 1218. <https://doi.org/10.1038/s41598-017-01242-0>
- Chirico, A., Ferrise, F., Cordella, L., & Gaggioli, A. (2018). Designing awe in virtual reality: An experimental study. *Frontiers in Psychology*, 8, 2351. <https://doi.org/10.3389/fpsyg.2017.02351>
- Chirico, A., & Gaggioli, A. (2021). The potential role of awe for depression: Reassembling the puzzle. *Frontiers in Psychology*, 12, 617715. <https://doi.org/10.3389/fpsyg.2021.617715>
- Clark, L. & Chevrette, R. (2017). Thick description. In J. Matthes, C. S. Davis and R. F. Potter (Eds.), *The International Encyclopedia of Communication Research Methods*. Wiley. <https://doi.org/10.1002/9781118901731.iecrm0252>
- Clark, T. B. (2020). *A mindful perspective can enhance our "awe" experience which supports our wellbeing*. <https://www.linkedin.com/pulse/mindful-perspective-can-enhance-our-awe-experience-which-clark-phd/> (Accessed March 22, 2022).
- Coutinho, J. F., Fernandes, S. V., Soares, J. M., Maia, L., Gonçalves, Ó. F., & Sampaio, A. (2016). Default mode network dissociation in depressive and anxiety states. *Brain Imaging and Behavior*, 10(1), 147–157. <https://doi.org/10.1007/s11682-015-9375-7>
- COVID-19 Mental Disorders Collaborators. (2021). Global prevalence and burden of depressive and anxiety disorders in 204 countries and territories in 2020 due to the COVID-19 pandemic. *Lancet (London)*

- England), 398(10312), 1700–1712. [https://doi.org/10.1016/S0140-6736\(21\)02143-7](https://doi.org/10.1016/S0140-6736(21)02143-7)
- Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches* (2nd ed.). Sage.
- Cuzzolino, M. P. (2021). “The awe is in the process”: The nature and impact of professional scientists’ experiences of awe. *Science Education*, 105, 681–706. <https://doi.org/10.1002/sce.21625>
- CVS Health. (2022, May 2). *CVS Health/Morning Consult survey finds mental health concerns increase substantially among Americans of all backgrounds*. <https://www.prnewswire.com/news-releases/cvs-healthmorning-consult-survey-finds-mental-health-concerns-increase-substantially-among-americans-of-all-backgrounds-301536984.html>
- Danvers, A. F., & Shiota, M. N. (2017). Going off script: Effects of awe on memory for script typical and -irrelevant narrative detail. *Emotion*, 17(6), 938–952. <https://doi.org/10.1037/emo0000277>
- DeSteno, D. (2018). *Emotional success: The power of gratitude, compassion, and pride*. HarperCollins.
- Denzin, N. K. (1989). *Interpretive biography*. Sage.
- Dobson, J. A. (2015). *Examining the psychological consequences of experiencing awe*. [Doctoral dissertation, University of Guelph]. https://atrium.lib.uoguelph.ca/xmlui/bitstream/handle/10214/9235/Dobson_Jennifer_201509_PhD.pdf?isAllowed=y&sequence=1
- Duckworth, A. (2016). *Grit: The power of passion and perseverance*. Scribner/Simon & Schuster.
- Eatough, V., & Smith, J. A. (2017) Interpretive phenomenological analysis. In: C. Willig and W. Stainton-Rogers (Eds.), *Handbook of qualitative psychology, 2nd edition* (pp. 193-211). Sage. <https://eprints.bbk.ac.uk/id/eprint/16386/>
- Emmons, R. (2010, November 16). *Why gratitude is good?* Greater Good Magazine. https://greatergood.berkeley.edu/article/item/why_gratitude_is_good
- Frechette, J., Bitzas, V., Aubry, M., Kilpatrick, K., & LavoieTremblay, M. (2020). Capturing lived experience: Methodological considerations for interpretive phenomenological inquiry. *International Journal of Qualitative Methods*, 19, 1–12. <https://doi.org/10.1177/1609406920907254>.
- Fly with Birds. (n.d.). *About*. <https://www.flywithbirds.com/about/>
- Gander, K. (2019, May 24). *People with a sense of purpose live longer, study suggests*. Newsweek. <https://www.newsweek.com/people-sense-purpose-live-longer-study-suggests-1433771>
- Geertz, C., (1973). *Thick description: Toward an interpretive theory of culture*. Basic Books.
- Gordon, A. M., Stellar, J. E., Anderson, C. L., McNeil, G. D., Loew, D., & Keltner, D. (2017). The dark side of the sublime: Distinguishing a threat-based variant of awe. *Journal of Personality and Social Psychology*, 113(2), 310–328. <https://doi.org/10.1037/pspp0000120>
- Gottlieb, S., Keltner, D., & Lombrozo, T. (2018). Awe as a scientific emotion. *Cognitive Science*, 42(6), 2081–2094. <https://doi.org/10.1111/cogs.12648>
- Graziosi, M. (2018). *In awe of each other: An exploration of awe in close relationships*. [Master’s thesis, University of Pennsylvania]. https://repository.upenn.edu/mapp_capstoneabstracts/156/
- Graziosi, M., & Yaden, D. (2019). Interpersonal awe: Exploring the social domain of awe elicitors. *Journal of Positive Psychology*, 16, 263–271. <https://doi.org/10.1080/17439760.2019.1689422>
- Groenewald, T. (2004). A phenomenological research design illustrated. *International Journal of Qualitative Methods*, 42–55. <https://doi.org/10.1177/160940690400300104Groen>
- Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85(2), 348–362. <https://doi.org/10.1037/0022-3514.85.2.348>
- Guan, F., Zhao, S., Chen, S., Lu, S., Chen, J., & Xiang, Y. (2019). The neural correlate difference between positive and negative awe. *Frontiers in Human Neuroscience*, 13, 206. <https://doi.org/10.3389/fnhum.2019.00206>
- Guarnera, S., & Williams, R. L. (1987). Optimism and locus of control for health and affiliation among elderly adults. *Journal of Gerontology*, 42(6), 594–595. <https://doi.org/10.1093/geronj/42.6.594>
- Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin and Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105–117). Sage.
- Hamilton, J. P., Farmer, M., Fogelman, P., & Gotlib, I. H. (2015). Depressive rumination, the default-mode network, and the dark matter of clinical neuroscience. *Biological Psychiatry*, 78(4), 224–230. <https://doi.org/10.1016/j.biopsych.2015.02.020>
- Hanson, R. (2018). *Resilient: 12 tools for transforming everyday experiences into lasting happiness*. Harmony Books.
- Hefferon, K., & Gil-Rodriguez, E. (2011). Interpretive phenomenological analysis. *The Psychologist*, 24(10), 756–759.
- Holloway, I. (1997). *Basic concepts for qualitative research*. London: Blackwell Science.
- Iacoviello, B. M., & Charney, D. S. (2014). Psychosocial facets of resilience: Implications for preventing posttrauma psychopathology, treating trauma survivors, and enhancing community resilience. *European Journal of Psychotraumatology*, 5. <https://doi.org/10.3402/ejpt.v5.23970>
- Jiang, T., & Sedikides, C. (2021). Awe motivates authentic-self pursuit via self-transcendence: Implications for prosociality. *Journal of Personality and Social Psychology*, 10.1037/pspi0000381. Advance online publication. <https://doi.org/10.1037/pspi0000381>
- Krause, N., & Hayward, R. D. (2015). Assessing whether practical wisdom and awe of God are associated with life satisfaction. *Psychology of Religion and Spirituality*, 7(1), 51–59. <https://doi.org/10.1037/a0037694>
- Keltner, D., and Haidt, J. (2003). Approaching awe, a moral, spiritual, and aesthetic emotion. *Cognition & Emotion*, 17, 297–314. <https://doi.org/10.1080/0269993030302297>
- Keltner, D. (2017, April 24). *How to cultivate awe with a walking meditation*. Greater Good Magazine. https://greatergood.berkeley.edu/article/item/how_to_cultivate_awe_walking_meditation
- Kerr, S. L., O’Donovan, A., & Pepping, C. A. (2015). Can gratitude and kindness interventions enhance well-being in a clinical sample? *Journal of Happiness Studies*, 16, 17–36. <https://doi.org/10.1007/s10902-013-9492-1>
- Krenzer, W. L., Krogh-Jespersen, S., Greenslit, J. N., Price, A., & Quinn, K. (2018). *Assessing the experience of awe: Validating the situational awe scale*. <https://psyarxiv.com/dsytn/>
- Krogh-Jespersen, S., Quinn, K. A., Krenzer, W., Nguyen, C., Greenslit, J., and Price, C. A. (2020). Exploring the awe-some: Mobile eye-tracking insights into awe in a science museum. *PLOS One*, 15, e0239204. <https://doi.org/10.1371/journal.pone.0239204>
- Levine, J. (2021, April 8). *Proof of Concept: A study co-authored by TC’s George Bonanno finds a genetic basis for why most people are resilient to life’s worst events*. Teachers College, Columbia University. <https://www.tc.columbia.edu/articles/2021/april/a-study-by-tcs-george-bonanno-finds-a-genetic-basis-for-resilience/>
- Lieberman, M. D., Eisenberger, N. I., Crockett, M. J., Tom, S. M., Pfeifer, J. H., & Way, B. M. (2007). Putting feelings into words: Affect labeling disrupts amygdala activity in response to affective stimuli. *Psychological Science*, 18(5), 421–428. <https://doi.org/10.1111/j.1467-9280.2007.01916.x>

- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage.
- Liu, P., Wang, X., Li, D., Zhang, R., Li, H., & Han, J. (2021). The benefits of self-transcendence: Examining the role of values on mental health among adolescents across regions in China. *Frontiers in Psychology*. <https://doi.org/10.3389/fpsyg.2021.630420>
- Lonczak, H. (2022, February 2). *Humor in psychology: Coping and laughing your woes away*. PositivePsychology.com. <https://positivepsychology.com/humor-psychology/>
- Love, B., Vetere, A., & Davis, P. (2020). Should interpretative phenomenological analysis (IPA) be used with focus groups? Navigating the bumpy road of "iterative loops," idiographic journeys, and "phenomenological bridges." *International Journal of Qualitative Methods*, 19. <https://doi.org/10.1177/1609406920921600>
- Lutz, A., Jha, A. P., Dunne, J. D., & Saron, C. D. (2015). Investigating the phenomenological matrix of mindfulness-related practices from a neurocognitive perspective. *American Psychologist* 70, 632–658. <https://doi.org/10.1037/a0039585>
- Macleod, A. (2017). *Prospection, well-being, and mental health*. Oxford University Press. <https://doi.org/10.1093/med:psych/9780198725046.001.0001>
- Mallick, T. (Director). (2011). *Tree of Life* [film]. River Road Entertainment. Pohlad, B., Green S., (Producers).
- Mapp, T. (2008). Understanding phenomenology: the lived experience. *The British Journal of Midwifery*, 16, 308-311. <https://doi.org/10.12968/bjom.2008.16.5.29192>
- Martin, R. A. (2019). Humor. In M. W. Gallagher and S. J. Lopez (Eds.), *Positive psychological assessment: A handbook of models and measures* (pp. 305–316). American Psychological Association.
- McPhetres, J. (2019). Oh, the things you don't know: Awe promotes awareness of knowledge gaps and science interest. *Cognition and Emotion*, 33, 1599–1615. <https://doi.org/10.1080/02699931.2019.1585331>
- McRae, K., Ciesielski, B., & Gross, J. J. (2012). Unpacking cognitive reappraisal: goals, tactics, and outcomes. *Emotion*, 12(2), 250–255. <https://doi.org/10.1037/a0026351>
- Melville, N. A. (2022, March 28). "Staggeringly high" rates of psychiatric symptoms after COVID-19. *Medscape*. <https://www.medscape.com/viewarticle/971085>
- Mills, A. J., Durepos, G., & Wiebe, E. (2010). *Encyclopedia of case study research* (Vols. 1-2). Sage. <https://doi.org/10.4135/9781412957397>
- Mills, P. J., Redwine, L., Wilson, K., Pung, M. A., Chinh, K., Greenberg, B. H., Lunde, O., Maisel, A., Raisinghani, A., Wood, A., & Chopra, D. (2015). The role of gratitude in spiritual well-being in asymptomatic heart failure patients. *Spirituality in Clinical Practice (Washington, D.C.)*, 2(1), 5–17. <https://doi.org/10.1037/scp0000050>
- Millstein, R. A., Celano, C. M., Beale, E. E., Beach, S. R., Suarez, L., Belcher, A. M., Januzzi, J. L., & Huffman, J. C. (2016). The effects of optimism and gratitude on adherence, functioning and mental health following an acute coronary syndrome. *General hospital psychiatry*, 43, 17–22. <https://doi.org/10.1016/j.genhosppsych.2016.08.006>
- Miyagi, T., Oishi, N., Kobayashi, K., Ueno, T., Yoshimura, S., Murai, T., & Fujiwara, H. (2020). Psychological resilience is correlated with dynamic changes in functional connectivity within the default mode network during a cognitive task. *Scientific Reports*, 10, 17760. <https://doi.org/10.1038/s41598-020-74283-7>
- Montague, J., Phillips, E., Holland, F., & Archer, S. (2020). Expanding hermeneutic horizons: Working as multiple researchers and with multiple participants. *Research Methods in Medicine & Health Sciences*, 1, 25–30. <https://doi.org/10.1177/2632084320947571>
- Moustakas, C. (1994). *Phenomenological research methods*. Sage.
- Nelson-Coffey, S. K., Ruberton, P. M., Chancellor, J., Cornick, J. E., Blascovich, J., & Lyubomirsky, S. (2019). The proximal experience of awe. *PLOS One*, 14, e0216780. <https://doi.org/10.1371/journal.pone.0216780>
- Nitschke, J. P., Forbes, P. A. G., Ali, N., Cutler, J., Apps, M. A. J., Lockwood, P. L., & Lamm, C. (2021). Resilience during uncertainty? Greater social connectedness during COVID-19 lockdown is associated with reduced distress and fatigue. *British Journal of Health Psychology*, 26(2), 553–569. <https://doi.org/10.1111/bjhp.12485>
- Peterson, C., & Seligman, M. (2004). *Character strengths and virtues: A handbook and classification*. American Psychological Association.
- Piff, P. K., Dietze, P., Feinberg, M., Stancato, D. M., & Keltner, D. (2015). Awe, the small self, and prosocial behavior. *Journal of Personality and Social Psychology*, 108, 883–899. <https://doi.org/10.1037/pspi0000018>
- Pilgrim, L. K., Norris, J. I., & Hackathorn, J. M. (2017). Music is awesome: Influences of emotion, personality, and preference on experienced awe. *Journal of Consumer Behaviour*, 16, 442–451. <https://doi.org/10.1002/cb.1645>
- Polkinghorne, D. E. (1989). Phenomenological research methods. In R. S. Valle and S. Halling (Eds.), *Existential-phenomenological perspectives in psychology: Exploring the breadth of human experience* (pp. 41–60). Plenum Press.
- Posner, J., Cha, J., Wang, Z., Talati, A., Warner, V., Gerber, A., Peterson, B. S., & Weissman, M. (2016). Increased default mode network connectivity in individuals at high familial risk for depression. *Neuropsychopharmacology*, 41(7), 1759–1767. <https://doi.org/10.1038/npp.2015.342>
- Preuss, A., Bolliger, B., Schicho, W., Hättenschwiler, J., Seifritz, E., Brühl, A. B., & Herwig, U. (2020). SSRI treatment response prediction in depression based on brain activation by emotional stimuli. *Frontiers in Psychiatry*, 11, 538393. <https://doi.org/10.3389/fpsy.2020.538393>
- Reinerman-Jones, L., Sollins, B., Gallagher, S. A., & Janz, B. (2013). Neurophenomenology: An integrated approach to exploring awe and wonder. *South African Journal of Philosophy*, 32(4), 295–309. <https://doi.org/10.1080/02580136.2013.867397>
- Reivich, K., & Shatte, A. (2003). *The resilience factor: 7 keys to finding your inner strength and overcoming life's hurdles*. Harmony Books.
- Rivera, G. N., Vess, M., Hicks, J. A., & Routledge, C. (2019). Awe and meaning: Elucidating complex effects of awe experiences on meaning in life. *European Journal of Social Psychology*, 50, 392–405. <https://doi.org/10.1002/ejsp.2604>
- Ruch, W., Proyer, R., & Weber, M. (2010). Humor as a character strength among the elderly. *Zeitschrift für Gerontologie und Geriatrie*, 43, 13–18.
- Rudd, M., Vohs, K. D., & Aaker, J. L. (2012). Awe expands people's perception of time, alters decision making, and enhances well-being. *Psychological Science*, 23, 1130–1136. <https://doi.org/10.1177/0956797612438731>
- Schaefer, S. M., Morozink Boylan, J., van Reekum, C. M., Lapate, R. C., Norris, C. J., Ryff, C. D., & Davidson, R. J. (2013). Purpose in life predicts better emotional recovery from negative stimuli. *PLOS One*, 8(11), e80329. <https://doi.org/10.1371/journal.pone.0080329>
- Schneider, S. L. (2001). In search of realistic optimism. *American Psychologist*, 56, 250–263.
- Schneider, K. J. (2009). *Awakening to awe: Personal stories of profound transformation*. Jason Aronson, Inc.
- Shapero, B. G., Stange, J. P., McArthur, B. A., Abramson, L. Y., & Alloy, L. B. (2019). Cognitive reappraisal attenuates the association between depressive symptoms and emotional response to stress during adolescence. *Cognition & Emotion*, 33(3), 524–535. <https://doi.org/10.1080/02699931.2018.1462148>
- Shin, J. Y., & Steger, M. F. (2014). Promoting meaning and purpose in life. In A. C. Parks and S. M. Schueller (Eds.), *The Wiley Blackwell*

- handbook of positive psychological interventions (pp. 90–110). Wiley Blackwell.
- Shiota, M. N., Keltner, D., & Mossman, A. (2007). The nature of awe: Elicitors, appraisals, and effects on self-concept. *Cognition and Emotion*, 21(5), 944–963. <https://doi.org/10.1080/02699930600923668>
- Shiota, M. N., Keltner, D., & John, O. P. (2006). Positive emotion dispositions differentially associated with Big Five personality and attachment style. *The Journal of Positive Psychology*, 1(2), 61–71. <https://doi.org/10.1080/17439760500510833>
- Shiota, M. N. (2021). Awe, wonder, and the human mind. *Annals of the New York Academy of Sciences*, 1501(1), 85–89. <https://doi.org/10.1111/nyas.14588>
- Shiota, M. N., Thrash, T., Danvers, A. F., & Dombrowski, J. T. (2017, July 11). *Transcending the self: Awe, elevation, and inspiration*. <https://doi.org/10.31234/osf.io/hkswj>
- Smith, J. A., Flowers, P., & Larkin, M. (2009). *Interpretative phenomenological analysis: Theory, method and research*. Sage.
- Smith, J. A., & Osborn, M. (2003). Interpretative phenomenological analysis. In J. A. Smith (Ed.), *Qualitative psychology: A practical guide to research methods* (pp. 51–80). Sage.
- Smith, J. A., & Osborn, M. (2015). Interpretative phenomenological analysis as a useful methodology for research on the lived experience of pain. *British Journal of Pain*, 9(1), 41–42. <https://doi.org/10.1177/2049463714541642>
- Smith, J. A., & Nizza, I. E. (2021). *Essentials of interpretative phenomenological analysis*. American Psychological Association.
- Southwick, S. M., & Charney, D. S. (2018). *Resilience: The science of mastering life's greatest challenges*. 2nd ed. Cambridge. http://assets.cambridge.org/9780521195638/copyright/9780521195638_copyright_info.pdf
- Stellar, J. E., Gordon, A. M., Piff, P. K., Cording, D. T., Anderson, C. L., Bai, Y., Maruskin, L. A., & Keltner, D. (2017). Self-transcendent emotions and their social functions: Compassion, gratitude, and awe bind us to others through prosociality. *Emotion Review*, 9, 200–207. <https://doi.org/10.1177/1754073916684557>
- Stellar, J. E., Gordon, A., Anderson, C. L., Piff, P. K., McNeil, G. D., & Keltner, D. (2018). Awe and humility. *Journal of Personality and Social Psychology*, 114(2), 258–269. <https://doi.org/10.1037/pspi0000109>
- Stellar, J. E. (2021). Awe helps us remember why it is important to forget the self. *Annals of the New York Academy of Sciences*, 1501(1), 81–84. <https://doi.org/10.1111/nyas.14577>
- Sturm, V. E., Datta, S., Roy, A. R. K., Sible, I. J., Kosik, E. L., Veziris, C. R., Chow, T. E., Morris, N. A., Neuhaus, J., Kramer, J. H., Miller, B. L., Holley, S. R., & Keltner, D. (2020). Big smile, small self: Awe walks promote prosocial positive emotions in older adults. *Emotion*, 22(5), 1044–1058. <https://doi.org/10.1037/emo0000876>
- Tabibnia, G. (2020). An affective neuroscience model of boosting resilience in adults. *Neuroscience and Biobehavioral Reviews*, 115, 321–350. <https://doi.org/10.1016/j.neubiorev.2020.05.005>
- Thompson, J. (2015). *Nonverbal communication and the skills of effective mediators: Developing rapport, building trust, and displaying professionalism*. [Doctoral dissertation, Griffith University]. <https://doi.org/10.25904/1912/3625>
- Thompson, J., & Drew, J. M. (2020). Warr;or21: A 21-day program to enhance first responder resilience and mental health. *Frontiers in Psychology*. <https://doi.org/10.3389/fpsyg.2020.02078>
- Thompson, J. (2020a). Enhancing resilience during the COVID-19 pandemic: A thematic analysis and evaluation of the warr;or21 program. *Journal of Community Safety and Well-Being*, 5(2), 51–56. <https://doi.org/10.35502/jcswb.134>
- Thompson, J. (2020b). First responders and real resilience. In T. Frame (Ed.), *Moral challenges: Vocational wellbeing among first responders*.
- Thompson, J. (2020c). Warr;or21: A 21-day practice for resilience and mental health. Lulu.
- Thompson, J. (2022a). Awe narratives: A mindfulness practice to enhance resilience and wellbeing. *Frontiers in Psychology*, 13, 840944. <https://doi.org/10.3389/fpsyg.2022.840944>
- Thompson, J. (2022b). Awe: Helping leaders address modern policing problems. *Journal of Community Safety and Well-Being*, 7(2), 53–58. <https://doi.org/10.35502/jcswb.239>
- Thompson, J., Grubb, A. R., Ebner, N., Chirico, A., & Pizzolante, M. (2022). Increasing crisis hostage negotiator effectiveness: Embracing awe and other resilience practices. *Cardozo Journal of Conflict Resolution*, 23(3), 615–685. https://static1.squarespace.com/static/60a5863870f56068b0f097cd/t/62c5bb989716c4185529716a/1657125784611/CAC309_crop.pdf
- Van Boven, L., & Ashworth, L. (2007). Looking forward, looking back: Anticipation is more evocative than retrospection. *Journal of Experimental Psychology: General*, 136(2), 289–300. <https://doi.org/10.1037/0096-3445.136.2.289>
- Van Elk, M., Karinen, A. K., Specker, E., Stamkou, E., & Baas, M. (2016). 'Standing in Awe': The effects of awe on body perception and the relation with absorption. *Collabra*, 2, 4. <https://doi.org/10.1525/collabra.36>
- van Elk, M., Arciniegas Gomez, M. A., van der Zwaag, W., van Schie, H. T., & Sauter, D. A. (2019). The neural correlates of the awe experience: Reduced default mode network activity during feelings of awe. *Hum. Brain Mapp*, 40, 3561–3574. <https://doi.org/10.1002/hbm.24616>
- van Manen, M. (1990). *Researching lived experience: Human science for an action sensitive pedagogy*. State University of New York Press.
- Walker, J., & Gilovich, T. (2021). The streaking star effect: Why people want superior performance by individuals to continue more than identical performance by groups. *Journal of Personality and Social Psychology*, 120(3), 559–575. <https://doi.org/10.1037/pspa0000256>
- Wild, J., Greenberg, N., Moulds, M. L., Sharp, M., Fear, N., Harvey, S., Wessely, S., & Bryant, R. A. (2020). Pre-incident training to build resilience in first responders: Recommendations on what to and what not to do. *Psychiatry*, 83:2, 128–142. <https://doi.org/10.1080/00332747.2020.1750215>
- Wong, P. T. P. (2016). Meaning-seeking, self-transcendence, and well-being. In A. Batthyany (Ed.), *Logotherapy and existential analysis: Proceedings of the Viktor Frankl Institute* (pp. 311–322). Springer. https://doi.org/10.1007/978-3-319-29424-7_27
- World Health Organization (2022, March 2). *COVID-19 pandemic triggers 25% increase in prevalence of anxiety and depression worldwide*. <https://www.who.int/news/item/02-03-2022-covid-19-pandemic-triggers-25-increase-in-prevalence-of-anxiety-and-depression-worldwide>
- Xie, Y., Xu, E., & Al-Aly, Z. (2022). Risks of mental health outcomes in people with Covid-19: cohort study. *BMJ*, 376, e068993. <https://doi.org/10.1136/bmj-2021-068993>
- Xu, C., Xu, Y., Xu, S., Zhang, Q., Liu, X., Shao, Y., Xu, X., Peng, L., & Li, M. (2020). Cognitive Reappraisal and the Association Between Perceived Stress and Anxiety Symptoms in COVID-19 Isolated People. *Frontiers in psychiatry*, 11, 858. <https://doi.org/10.3389/fpsyg.2020.00858>
- Yaden, D. B., Iwry, J., Slack, K. J., Eichstaedt, J. C., Zhao, Y., Vaillant, G. E., & Newberg, A. B. (2016). The overview effect: Awe and self-transcendent experience in space flight. *Psychology of Consciousness: Theory, Research, and Practice*, 3(1), 1–11. <https://doi.org/10.1037/cns0000086>
- Yaden, D. B., Haidt, J., Hood, R. W., Vago, D. R., & Newberg, A. B. (2017). The varieties of self-transcendent experience. *Review of General Psychology*, 21(2), 143–160. <https://doi.org/10.1037/gpr0000102>

- Yaden, D. B., Kaufman, S. B., Hyde, E., Chirico, A., Gaggioli, A., Zhang, J. W., & Keltner, D. (2019). The development of the Awe Experience Scale (AWE-S): A multifactorial measure for a complex emotion. *The Journal of Positive Psychology, 14*(4), 474–488. <https://doi.org/10.1080/17439760.2018.1484940>
- Yang, Y., Yang, Z., Bao, T., Liu, Y., & Passmore, H.-A. (2016). Elicited awe decreases aggression. *Journal of Pacific Rim Psychology, 10*. <https://doi.org/10.1017/prp.2016.8>
- Yang, Y., Hu, J., Jing, F., & Nguyen, B. (2018). From awe to ecological behavior: The mediating role of connectedness to nature. *Sustainability, 10*:2477. <https://doi.org/10.3390/su10072477>
- Youssef, C. M., & Luthans, F. (2007). Positive organizational behavior in the workplace: the impact of hope, optimism, and resilience. *Management Department Faculty Publications, 36*. <https://digitalcommons.unl.edu/managementfacpub/36>
- Zhang, J. W., Piff, P. K., Iyer, R., Koleva, S. P., & Keltner, D. (2014). An occasion for unselfing: Beautiful nature leads to prosociality. *Journal of Environmental Psychology, 37*, 61–72. <https://doi.org/10.1016/j.jenvp.2013.11.008>
- Zhang, J. W., Howell, R. T., Razavi, P., Shaban-Azad, H., Chai, W. J., Ramis, T., Mello, Z., Anderson, C. L., Monroy, M., & Keltner, D. (2021). Awe is associated with creative personality, convergent creativity, and everyday creativity. *Psychology of Aesthetics, Creativity, and the Arts*. Advance online publication. <https://doi.org/10.1037/aca0000442>
- Zhao, H., Zhang, H., Xu, Y., Lu, J., & He, W. (2018). Relation between awe and environmentalism: The role of social dominance orientation. *Frontiers in Psychology, 9*, 2367. <https://doi.org/10.3389/fpsyg.2018.02367>
- Zhao, H., & Zhang, H. (2022). Why dispositional awe promotes psychosocial flourishing? An investigation of intrapersonal and interpersonal pathways among Chinese emerging adults. *Current Psychology, 1–13*. Advance online publication. <https://doi.org/10.1007/s12144-021-02593-8>