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From awe to wellness: how awe encourages health-promoting lifestyles through authentic-self pursuit

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ABSTRACT

Adopting health-promoting lifestyles is essential for maintaining physical and psychological well-being. Drawing on an emotion-based perspective, the present research tested the hypotheses that awe promotes engagement in health-promoting lifestyles and that this effect is driven by individuals' pursuit of their authentic selves. Across five studies ($N = 1285$), Studies 1–3 employed longitudinal designs, showing that trait awe positively predicts engagement in health-promoting lifestyles over time, with Study 3 further revealing that this effect is mediated by authentic-self pursuit. Following a causal chain design, Study 4 employed an experimental design to demonstrate the mediation model at the causal level. Study 4a showed the causal effect of awe on authentic-self pursuit and health-promoting lifestyle intentions. Study 4b further demonstrated the causal effect of authentic-self pursuit on health-promoting lifestyle intentions. These findings establish awe as a distinct emotional antecedent of health-promoting lifestyles and underscore its role in supporting long-term well-being.

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Authentic-self pursuit; awe; health-promoting lifestyles; well-being

Introduction

Chronic noncommunicable diseases (NCDs) such as heart disease, stroke, and diabetes are the dominant causes of morbidity and mortality (World Health Organization [WHO], 2023), and mental health disorders (most commonly anxiety and depression) afflict nearly one billion people globally (WHO, 2023). In response to this dual burden, public health authorities emphasize adopting health-promoting lifestyles – including regular exercise, healthy eating, and attention to spiritual well-being – as fundamental means of preventing disease and enhancing overall well-being (Bourke et al., 2025; Harrington et al., 2009). Given these benefits, identifying the factors that motivate individuals to initiate and sustain health-promoting lifestyles is of critical importance.

In this context, we propose that awe – a self-transcendent emotion elicited by vast and novel stimuli – may be a particularly compelling candidate. Recent evidence indicates that experiencing awe can yield broad psychological and physiological benefits (Jiang et al., 2024). Building on this evidence, the present research extends the investigation of awe to a more specific

motivational question. Health-promoting lifestyles are largely self-directed: through physical activity, nutrition, and spiritual growth, individuals seek to protect their health, enhance well-being, and pursue personal growth. Awe, by contrast, is a self-transcendent emotion that reduces narrow self-focus and orients individuals toward something larger than the self (Keltner & Haidt, 2003). This contrast raises a counterintuitive but theoretically important question: can an emotion that moves people beyond the self also motivate behaviors aimed at caring for and developing the self? To address this question, the present study investigates whether and how awe, at both the trait and state levels, fosters individuals' willingness to engage in health-promoting lifestyles.

Health-promoting lifestyles

Health-promoting lifestyles refer to a self-initiated, multi-dimensional pattern of health behaviors aimed at achieving well-being and self-actualization (Teng et al., 2010), encompassing activities such as physical exercise, proper nutrition, and spiritual growth (Pender et al.,

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2013). Unsurprisingly, adopting such a lifestyle significantly benefits both physical and mental health. For example, it reduces the risk of chronic conditions, including cardiovascular disease, diabetes, obesity, and respiratory disorders (Anderson & Durstine, 2019; Freisling et al., 2020; Sun et al., 2022). Additionally, this lifestyle eases psychological distress and contributes to controlling and preventing depression and anxiety, thereby enhancing overall mental well-being (Bourke et al., 2025; Hautekiet et al., 2022; Marx et al., 2020; Singh et al., 2023).

Extensive public health research has focused on understanding the influence of socio-demographic factors, including age, gender, occupation, educational background, and socioeconomic position, in shaping the adoption of health-promoting lifestyles (e.g. Huang et al., 2024; Lan & Jin, 2025; Mollborn et al., 2020). Guided by the Health Belief Model and the Theory of Planned Behavior, empirical studies have explored how health awareness, risk perception, and perceived benefits and barriers affect individuals' health-related decisions (Ajzen, 1991; Champion & Skinner, 2008). In terms of contextual influences, social support from significant others and prevailing social norms have been shown to serve as protective factors that promote healthier behavioral choices (Ball et al., 2010; Frech, 2012).

Closely related to the current study, increasing attention has been directed toward the role of emotions in shaping health behaviors. Negative emotions (e.g. depression, anxiety, and sadness) are widely recognized as risk factors for unhealthy behaviors (Ferrer & Mendes, 2017; Tao et al., 2024). For example, individuals experiencing emotional distress are more likely to consume indulgent foods that are high in sugar and calories (Cheng et al., 2024). The effects of positive emotions on health behaviors, however, appear more nuanced. While emotions such as happiness and contentment can enhance motivation to engage in healthy behaviors like healthy eating and regular physical activity (Schubert & Bode, 2022; White et al., 2018), other studies suggest that certain positive emotions, such as relaxation, may inadvertently promote health-risk behaviors (Ashurst et al., 2018). Similarly, a meta-analysis further revealed that entertainment-induced positive affect was linked to increased appetite-related risk behaviors, such as smoking and excessive alcohol consumption, whereas other positive emotions, including pride and satisfaction, showed no significant effects (Ferrer et al., 2020).

Despite growing scholarly interest in emotional antecedents of health behavior, prior research has largely focused on general categories of positive and negative emotions. In addition, these emotions – such as sadness, anxiety, depression, happiness, and relaxation – are self-

oriented emotions that often center on self-evaluation. They stem from appraisals of personal conditions and are concerned with self-preservation or self-assessment, directing attention inward. Moreover, most studies have examined their effects on isolated behaviors, such as dietary choices, rather than on more comprehensive, multidimensional lifestyle patterns that encompass nutrition, exercise, and spiritual growth.

To address these gaps, the present study investigates awe – a discrete positive emotion and a prototypical example of self-transcendent emotions (Keltner & Haidt, 2003) – for its potential to promote a multidimensional, health-promoting lifestyle. As a self-transcendent emotion, awe shifts an individual's focus away from mere personal needs, goals, and identity toward something larger and more significant than the self. By investigating awe, this research extends health behavior scholarship to include a self-transcendent emotion whose mechanisms differ fundamentally from those of positive emotions examined in prior work. More broadly, this line of inquiry leads to a counterintuitive yet compelling possibility: if health-promoting behaviors – though inherently self-directed – can be triggered by emotions that diminish self-focus, such as awe, then this would suggest that concern and care for oneself may also be cultivated by transcending the self.

Awe and health-promoting lifestyles

When standing beneath a star-filled sky, atop a towering mountain, or in the presence of an extraordinary individual, people often involuntarily utter an exclamation of 'Oh!' – a spontaneous reaction that captures the essence of awe. Awe is a complex and distinct emotional response triggered by the perception of something greater than the self, typically involving a blend of wonder, admiration, and confusion (Keltner & Haidt, 2003). According to the prototype model proposed by Keltner and Haidt (2003), awe is characterized by two core appraisal dimensions: perceived vastness and the need for accommodation. Perceived vastness refers to the experience of encountering stimuli that are mentally or conceptually immense, challenging one's existing frame of reference and evoking a diminished sense of self, fostering a feeling of being part of something greater. The need for accommodation arises when such experiences cannot be integrated into existing mental schemas, thereby prompting individuals to restructure or broaden their schemas to comprehend the novel information.

A growing body of empirical research has demonstrated that awe induces positive effects across three domains: cognition and motivation, social dynamics,

and well-being (Jiang et al., 2024). In the domain of cognition and motivation, awe fosters global and highly constructive information processing, which promotes reflective thinking and wise reasoning (e.g. Chen et al., 2025; Wang et al., 2025). In terms of social dynamics, awe increases prosocial attitudes and behaviors and reduces aggression (e.g. Piff et al., 2024; Yang et al., 2016; Zhang et al., 2024). Regarding well-being, awe enhances psychological resilience, cultivates equanimity, strengthens self-humanity, facilitates meaning making, and boosts happiness and life satisfaction (Cheng & Wang, 2024; Pan et al., 2024; Thompson, 2022; Yuan et al., 2024). In addition, experiences of awe have been linked to increased oxytocin release, reduced sympathetic nervous system activation, and lower levels of pro-inflammatory cytokines (Bai et al., 2021; Monroy & Keltner, 2023), providing a complementary biological foundation for its broad benefits to well-being.

In this research, we shift attention from the direct physiological and psychological health outcomes of awe to the motivational and behavioral processes that support long-term well-being, specifically to examine its influence on individuals' willingness to engage in health-promoting lifestyles. Although previous research has not directly tested this relationship, existing theoretical frameworks provide a compelling foundation for such a link. First, awe, as a self-transcendent positive emotion, expands individuals' cognitive perspectives and shifts attention away from the self toward broader concerns. This outward focus facilitates higher-order meaning-making processes. For example, prior research has shown that awe significantly enhances a person's sense of meaning in life (Yuan et al., 2024), which in turn promotes engagement in purposeful and value-driven behaviors (Dai et al., 2022), including those related to health. Specifically, individuals who perceive their lives as meaningful and purposeful are more likely to engage in health-promoting behaviors, as reflected in higher levels of physical activity (Hooker & Masters, 2016) and greater vegetable consumption (Hill et al., 2019), as well as a stronger tendency to actively pursue actions that foster personal growth and self-development (Niles et al., 2024). This experience of meaning thus serves as an essential psychological foundation for initiating and sustaining health-promoting behaviors over time, as such behaviors are perceived as intrinsically meaningful and aligned with individuals' core values. Moreover, from the perspective of hypo-egoic self-regulation (Leary & Guadagno, 2011; Leary et al., 2006), reducing excessive self-focus should be conducive to one's ability to self-regulate by allowing individuals to respond more naturally and adaptively to internal and external cues. As

a result, it reduces ego-driven impulses and facilitates self-regulatory processes. As such, individuals experiencing awe may be more likely to inhibit immediate temptations (e.g. unhealthy food consumption) and instead engage in behaviors aligned with long-term well-being.

Based on these theoretical perspectives, we propose our first hypothesis (H1): Awe increases individuals' willingness to engage in health-promoting lifestyles. In the following sections, we explicitly elaborated on how awe increases health-promoting behaviors through authentic-self pursuit.

The mediating role of authentic-self pursuit

Consistent with prior research, we define authentic-self pursuit as the desire to align with one's true, genuine self – that is, to be one's real, unvarnished self (Sedikides et al., 2019). We argue that awe, as a self-transcendent emotion, can foster authentic-self pursuit. This may seem counterintuitive at first glance, given that an emotion diminishing self-focus and self-salience might appear unlikely to promote a pursuit related to the self. Nevertheless, philosophers have long maintained that self-transcendence is crucial for authentic self-pursuit. For instance, Conn (1998) argued that the authentic self emerges when one transcends the narrow confines of personal selfhood. Similarly, Frankl (1985) contended that only by avoiding a narrow focus on the self can individuals actively and fully engage with what truly matters in a meaningful way, thereby seeking and becoming their authentic self. In a similar vein, psychologist Maslow (1971) argued that achieving psychological distance from oneself, referred to as self-distancing (Kross & Ayduk, 2017), is essential for recognizing one's authentic self and, consequently, for pursuing it. Moreover, although it is nearly impossible for individuals to completely step outside their social roles, role-distancing nonetheless creates reflective space and meaning-seeking, thereby fostering authenticity (Morgan, 1976). Empirical research has supported this proposition. For example, studies have found that the self-transcendent nature of awe enhances individuals' identification with their core identity attributes, which in turn motivates them to align with their authentic self and strengthens their motivation to pursue authenticity (Cheng & Wang, 2024; Jiang & Sedikides, 2022). Therefore, we hypothesize that the experience of awe promotes authentic-self pursuit (H2a).

Furthermore, the pursuit of the authentic self stimulated by awe is not merely an internal psychological experience; it may also be reflected in individuals' external life choices and behaviors. Specifically, we propose that authentic-self pursuit can promote the adoption of

health-promoting lifestyles. Theoretically, striving for authenticity encourages individuals to pursue their 'optimal self'. According to humanistic psychology, individuals possess an inherent growth tendency that drives them to realize their potential and become their 'best self', with authenticity serving as a core component of this process (Jourard, 1964; Rogers, 1961). Within this framework, authenticity functions as a 'true-self-as-guide', directing individuals toward their 'optimal self'. This optimal self, in turn, serves as a benchmark for evaluating whether one is living up to a shared cultural value of what it means to live a good life (Rivera et al., 2017; Strohminger et al., 2017). Importantly, health – including both physical and mental dimensions – is a fundamental basis for living a good life (Willroth et al., 2024). Indeed, a survey study found that 'health and feeling well', which conceptualizes physical and mental health as central to a good life, was endorsed by 84% of the sample (Van Der Deijl et al., 2023). In other words, to approach their optimal self, individuals tend to prioritize key aspects that support a good life, with health being a fundamental component. Therefore, we hypothesize that individuals who are strongly motivated to pursue their authentic selves are more likely to integrate health behaviors into their daily lives and adopt a health-promoting lifestyle, including those at the physical level (e.g. physical activity, nutrition) or at the psychological level (e.g. pursuing spiritual growth) (H2b).

Overview of the present research

The present research aimed to systematically examine whether awe can predict and increase individuals' willingness to engage in health-promoting lifestyles and to test the mediating role of authentic-self pursuit in this process. Importantly, previous research has shown that awe can be conceptualized both as a transient emotional state and as a stable personality trait (Keltner & Haidt, 2003; Stellar et al., 2018). State awe refers to the emotional experience of awe that arises in specific situations, whereas trait awe reflects an individual's general tendency to experience awe in daily life, often viewed as the cumulative result of repeated state awe experiences (Nezlek, 2007; Stellar et al., 2018). Therefore, we explored the effects of both dispositional level (Studies 1–3) and state level (Study 4a) of awe on individuals' engagement in health-promoting lifestyles. In Study 1, a two-wave longitudinal design was employed to examine the association between trait awe and health-promoting lifestyles while controlling for trait joy and demographic variables. Study 2 extended this investigation using a one-month, two-wave cross-lagged design, additionally controlling

for trait joy, pride, and amusement, to strengthen causal inference. Study 3 further tested the underlying mechanism by employing a three-wave longitudinal design to examine the mediating role of authentic-self pursuit in the relationship between dispositional awe and health-promoting lifestyles. Building on these correlational findings, Studies 4a and 4b adopted a causal chain experimental design to provide direct causal evidence. Specifically, Study 4a manipulated state awe to test its effect on authentic-self pursuit and willingness to engage in health-promoting lifestyles, while Study 4b directly manipulated authentic-self pursuit to assess its causal impact on health-promoting lifestyles.

We received ethical approval from the authors' institution. Participants' informed consent was obtained in all studies. We have uploaded all data collected in Studies 1–4b to OSF (<https://osf.io/zcd57>).

Study 1

To avoid common method bias, Study 1 examined the correlation between trait awe and health-promoting lifestyles using a two-wave longitudinal design (Hypothesis 1). This approach helps reduce potential concerns about common method bias that may arise in cross-sectional designs (Podsakoff et al., 2012) and strengthens the inference of temporal direction between the predictor (i.e. awe) and the outcome variable (i.e. health-promoting behaviors). Additionally, given that awe is typically experienced as a positive emotion and frequently co-occurs with other positive emotions (Jiang & Sedikides, 2022; Pan & Jiang, 2024), trait joy was included as a covariate to assess the unique contribution of dispositional awe to health-promoting lifestyle (e.g. Cheng & Wang, 2024; Pan et al., 2024).

Method

Participants

Based on the Monte Carlo simulation results (Schönbrodt & Perugini, 2013), this study aimed to recruit at least 250 participants to obtain stable bivariate correlation estimates. Initially, 350 Chinese participants were recruited at Time 1 to complete measures of trait awe and covariates (i.e. joy), and were subsequently assessed on health-promoting lifestyles at Time 2. The final sample consisted of 257 participants who completed both waves of the study (73.2% women; $M_{age} = 30.44$, $SD = 7.25$). The overall attrition rate was 26.57%. No further exclusions were made other than for participants who dropped out. All participants provided informed consent online.

Procedure

Participants were recruited via Credamo to complete a two-wave online study with a one-week interval. Prior to data collection, all participants provided electronic informed consent, acknowledging that their participation was voluntary and that their data would remain confidential. At Time 1, they completed a measure of trait awe, with trait joy assessed as a control variable. After supplying their demographic details, they received gratitude and payment. One week later, participants who completed Time 1 were invited to complete a follow-up survey assessing health-promoting lifestyles.

Measures

Dispositional awe and joy. Dispositional awe and joy were measured by the Dispositional Positive Emotions Scale (Shiota et al., 2006). The awe subscale included six items, with an example item: 'I often feel awe'. The joy subscale included six items, with an example item: 'I often feel bursts of joy'. Responses were collected using a 7-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*), where higher values reflected stronger feelings of awe or joy ($\alpha_{awe} = 0.81$; $\alpha_{joy} = 0.89$).

Health-promoting lifestyles. Health-promoting behaviors were assessed using the Chinese version short form of the Health-Promoting Lifestyle Profile-II (Teng et al., 2010). For the present study, three subscales – physical activity (6 items), nutrition (5 items), and spiritual growth (6 items) – were selected based on their theoretical relevance to the research objectives.¹ Participants were instructed to indicate how frequently

they had engaged in each behavior during the past month, based on their actual daily lives. Example items include 'Engage in leisure-time physical activities such as swimming or cycling', 'Eat 2–4 portions of vegetables daily', and 'Feel that you are growing and changing positively'. Responses were provided on a 4-point Likert scale (1 = *never*, 4 = *always*), with higher scores indicating more frequent engagement in health-promoting behaviors ($\alpha = 0.87$; subscales' $\alpha = 0.67$ – 0.80).

Demographic information. Participants reported their age, gender, and subjective social class (SSC, Adler et al., 2000).

Results and discussion

As shown in Table 1, results showed that dispositional awe was positively correlated with health-promoting lifestyles, $r(257) = 0.57$, $p < .001$. To further control for the effects of trait joy and demographic variables (i.e. gender, age, and SSC), a hierarchical regression analysis was conducted. After controlling for trait joy and demographic variables, dispositional awe remained a significant predictor of health-promoting lifestyle, $\beta = 0.15$, $t(251) = 4.13$, $p < .001$, 95% CI [0.08, 0.22], $\Delta R^2 = 0.04$ (see Table 2).

Study 1 provides initial support for Hypothesis 1, demonstrating that individuals with higher levels of dispositional awe are more inclined to engage in health-promoting lifestyles in their lives. Importantly, this association remained significant even after controlling for

Table 1. Mean, SD, and bivariate correlation for all Study variables in Study 1.

Variables	M	SD	1	2	3
1. Dispositional Awe	5.01	0.91			
2. Health-Promoting Lifestyles (HPL)	2.81	0.43	.57***		
3. Physical Activity	2.32	0.55	.42***	.85***	
4. Nutrition	2.96	0.53	.43***	.82***	.56***
5. Spiritual Growth	3.17	0.48	.55***	.79***	.47***

Note. $N = 257$. *** $p < .001$.

Table 2. Hierarchical regression analysis predicting health-promoting lifestyles.

Variables	Model 1		Model 2	
	β	p	β	p
Sex	−0.10	0.046	−0.06	0.181
Age	0.02	0.000	0.02	0.000
SSC	0.03	0.061	0.03	0.063
Joy	0.03	0.000	0.02	0.004
Dispositional Awe			0.15	0.000
R^2	0.40		0.44	
Adjusted R^2	0.39		0.43	
ΔR^2	0.40		0.04	
F	42.25***		39.36***	

Note. * $p < .05$; ** $p < .01$; *** $p < .001$.

dispositional joy and demographic variables, underscoring the unique contribution of awe.

Study 2

Although Study 1 provided initial longitudinal evidence linking dispositional awe to health-promoting lifestyles, the short one-week interval limited causal inference. Study 2 aimed to extend these findings using a one-month, two-wave design with a cross-lagged panel model to more rigorously examine the directional effect of awe on health-promoting behaviors. Building on Study 1, joy, pride and amusement were additionally included as covariates to more comprehensively disentangle awe from other positive emotions and ensure the reliability of the results (e.g. Pan & Jiang, 2024; Piff et al., 2015).

Method

Participants

This study followed sample size guidelines proposed by Barrett (2007) and Iacobucci (2009), suggesting that two-wave cross-lagged panel models typically require at least 200 participants. Data were collected at two time points, one month apart, via Credamo. A total of 300 Chinese participants were recruited at Time 1. At Time 2, fifty-six participants failed to complete the survey (total attrition rate = 18.67%), and four participants were excluded for failing the attention check (i.e. 'Please select "often" for this item'). Thus, the final valid sample consisted of 240 participants (54.2% women; $M_{age} = 31.15$, $SD = 8.21$).

Procedure

Before participation, all respondents provided informed consent electronically and were assured that their responses would remain anonymous and confidential. At Time 1, participants completed an online questionnaire assessing dispositional awe, health-promoting lifestyles, dispositional joy, and demographic information. One month later (Time 2), participants were invited to complete the same set of measures again.

Measures

Dispositional awe. Participants' dispositional awe was measured using the same scales as in Study 1 ($\alpha_{wave_1} = .77$, $\alpha_{wave_2} = .77$).

Dispositional joy, pride and amusement.

Dispositional joy, pride and amusement were assessed by the Dispositional Positive Emotion Scales (DPES; Shiota et al., 2006). In the original DPES, the joy subscale contains six items, whereas the pride and amusement subscales each contain five items. In the current study, we shortened each subscale to three items to reduce survey length and participant burden while preserving conceptual coverage and psychometric quality. The selected items were chosen to capture the core content of each construct and to maintain adequate internal consistency. Example items include: 'I often feel bursts of joy', 'I feel good about myself', and 'I find humor in almost everything'. Participants responded on a 7-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*), with higher scores indicating stronger levels of the respective positive emotion. The shortened subscales demonstrated acceptable reliability across waves (joy: $\alpha_{wave_1} = .62$, $\alpha_{wave_2} = .92$; pride: $\alpha_{wave_1} = .72$, $\alpha_{wave_2} = .70$; amusement: $\alpha_{wave_1} = .57$, $\alpha_{wave_2} = .69$).

Health-promoting lifestyles. Health-promoting lifestyles were measured using the same scale as in Study 1 ($\alpha_{wave_1} = .88$, $\alpha_{wave_2} = .88$).

Demographic information. Same as in Study 1.

Results and discussion

As shown in Table 3, in each wave, dispositional awe was positively related to health-promoting lifestyles, $r(240)_{wave_1} = .64$, $r(240)_{wave_2} = .67$, $ps < .001$.

To examine the lagged effect of dispositional awe on health-promoting lifestyles, a cross-lagged panel model (CLPM) was estimated using Mplus 8.3. As the model was saturated, no global fit indices were available. Participants' age, sex, subjective social class, and other trait positive emotions (i.e. dispositional joy, pride, and amusement) were included as covariates. The cross-lagged path from dispositional awe (Wave 1) to health-promoting lifestyles (Wave 2) was significant ($\beta = 0.19$, $p < .001$, 95% CI [0.09,

Table 3. Mean, SD, and bivariate correlation for key Study variables in Study 2.

Variables	<i>M</i>	<i>SD</i>	1	2	3
1. Awe (W1)	5.39	0.79			
2. Health-promoting lifestyles (W1)	3.85	0.53	.64***		
3. Awe (W2)	5.42	0.77	.76***	.57***	
4. Health-promoting lifestyles (W2)	3.81	0.52	.68***	.81***	.67***

0.30)). In contrast, the reverse path from health-promoting lifestyles (Wave 1) to dispositional awe (Wave 2) was not significant ($\beta = 0.06, p = .236$). These results revealed the association between trait awe and health-promoting lifestyles over time (see Figure 1).

Thus, Study 2 provides longitudinal evidence that dispositional awe predicts later engagement in health-promoting lifestyles, independent of other positive emotions and demographic factors.

Study 3

Study 3 aimed to extend the previous findings by exploring the underlying psychological mechanism linking dispositional awe and health-promoting lifestyles. Specifically, we employed a three-wave longitudinal design to examine the potential mediating role of authentic-self pursuit in this process (Hypothesis 2).

Method

Participants

We used the Monte Carlo Power Analysis for Indirect Effects tool (Schoemann et al., 2017) to determine the sample size for our proposed mediation model. To detect medium effect sizes, at least 153 participants were required to achieve a power of 0.80, assuming intercorrelations of $r = .30$ ($SD = 0.10$) (e.g. Cheng et al., 2024). We initially recruited 450 Chinese participants. We measured the trait awe and covariates (i.e. joy, pride and amusement) at Time 1, assessed authentic-self pursuit at Time 2, and evaluated health-promoting lifestyles at Time 3. A final sample of 392 valid participants (total attrition rate = 12.89%; 69.90% women; $M_{age} = 30.37, SD = 6.37$) who completed all three waves of the study was retained for analysis. No further exclusions were made from the remaining participants, and all participants gave informed consent online.

Procedure

A three-wave longitudinal design with one-month intervals was employed. At Time 1, participants were recruited via Credamo to complete an online survey. After providing informed consent, they completed measures of trait awe, as well as trait joy, pride, and amusement (control variables), followed by demographic information (age, sex, and SSC). Participants received compensation upon completion. One month later (Time 2), respondents who completed Time 1 were invited to complete a follow-up survey assessing authentic-self pursuit. One month after Time 2 (Time 3), those who completed the second survey were invited to complete a final questionnaire measuring health-promoting lifestyles.

Measures

Dispositional awe, joy, pride and amusement.

Dispositional awe, joy, pride and amusement were measured as in Study 2 ($\alpha_{awe} = .81, \alpha_{joy} = .70, \alpha_{pride} = .76, \alpha_{amusement} = .73$)

Authentic-self pursuit. The Authentic-Self Pursuit scale included five items (Jiang & Sedikides, 2022), with example items: 'I am motivated to pursue my authentic self', and 'I am looking forward to pursuing my authentic self'. Participants responded using a 7-point Likert Scale (1 = *strongly disagree*, 7 = *strongly agree*), with higher scores corresponding to higher levels of authentic-self pursuit ($\alpha = 0.78$).

Health-promoting lifestyles. Health-promoting lifestyles were assessed by the same scales as in Study 1 ($\alpha = 0.87$; subscales' $\alpha = 0.68-0.82$).

Demographic information. Same as in Study 1.

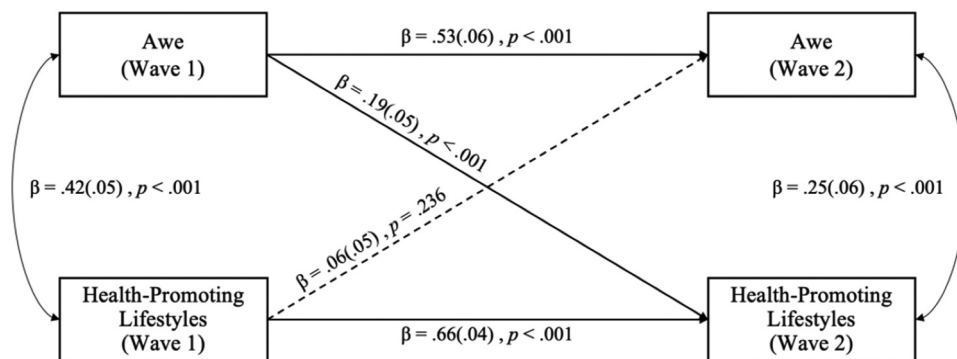


Figure 1. Results of the cross-lagged panel model in Study 2. Note. Dashed line represents insignificant paths. Standardized estimates are reported. Standard errors are shown in parentheses. Figure showed results after controlling for all covariates.

Results and discussion

Awe and health-promoting lifestyles

As shown in Table 4, dispositional awe (T1) was positively correlated with health-promoting lifestyles (T3), $r(392) = 0.54$, $p < .001$. Additionally, a hierarchical regression analysis was conducted to examine whether the effect of dispositional awe (T1) remained significant after controlling for dispositional joy, pride, amusement, and demographic variables (i.e. age, gender, and subjective social class). Dispositional awe remained a significant predictor, $\beta = 0.19$, $t(384) = 2.83$, $p = .005$, 95% CI [0.10, 0.54], $\Delta R^2 = 0.01$ (see Table 5).

The mediating role of authentic-self pursuit

We conducted a bootstrapping mediation analysis with 5,000 iterations (Model 4; Hayes, 2013). Particularly, we

modeled trait awe as the independent variable, authentic-self pursuit as the mediator, health-promoting lifestyles as the dependent variable, and demographic variables, joy, pride and amusement as the control variables.

The results revealed that the indirect effect was significant ($b = 0.10$, $SE = 0.04$, 95% CI [0.02, 0.19]), as was the direct effect ($b = 0.23$, $SE = 0.11$, 95% CI [0.01, 0.44]). These findings suggest that authentic-self pursuit serves as a significant mediator in the relationship between awe and health-promoting lifestyles (see Figure 2).

Therefore, Study 3 successfully replicated the findings of Study 1, supporting Hypothesis 1. Moreover, authentic-self pursuit partly explained the effect of awe on health-promoting lifestyles, further supporting Hypothesis 2.

Table 4. Mean, SD, and bivariate correlation for all Study variables in Study 3.

Variables	M	SD	1	2	3	4	5
1. Dispositional awe (T1)	5.12	5.49					
2. Authentic-self pursuit (T2)	5.76	0.71	.51***				
3. Health-promoting lifestyle (T3)	3.79	0.54	.54***	.53***			
4. Physical activity (T3)	3.34	0.73	.44***	.34***	.86***		
5. Nutrition (T3)	3.85	0.64	.42***	.39***	.84***	.60***	
6. Spiritual growth (T3)	4.18	0.59	.47***	.59***	.78***	.44***	.52***

Note. $N = 392$. *** $p < .001$.

Table 5. Hierarchical regression analysis predicting health-promoting lifestyles.

Variables	Model 1		Model 2	
	β	p	β	p
Sex	-0.99	0.222	-0.72	0.369
Age	0.26	0.000	0.25	0.000
SSC	0.58	0.054	0.54	0.071
Joy	0.57	0.004	0.32	0.123
Pride	1.13	0.000	0.94	0.000
Amusement	0.11	0.498	-0.01	0.954
Dispositional Awe			0.32	0.005
R^2	0.39		0.40	
Adjusted R^2	0.38		0.39	
ΔR^2	0.39		0.01	
F	40.92***		40.92***	

Note. * $p < .05$; ** $p < .01$; *** $p < .001$.

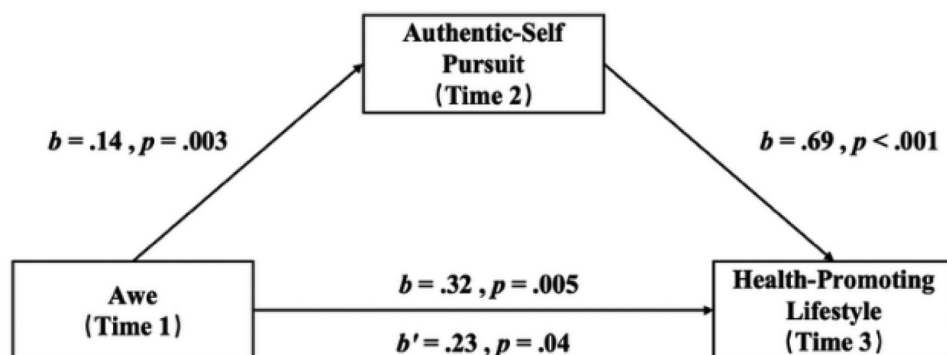


Figure 2. Authentic-self pursuit mediates the effect of awe on health-promoting lifestyles in Study 3.

Study 4a

Study 4a extended the findings of Studies 1–3 in two important ways. First, in Study 4a, we examined whether the previously observed effects at the trait level would generalize to a situationally induced emotional state. Second, following a causal chain design (Spencer et al., 2005), Studies 4a and 4b aimed to use experimental design to test the mediation model at the causal level (i.e. the effect of awe on health-promoting behavior via authentic-self pursuit).

Method

Participants

An a priori G*Power analysis (Faul et al., 2007) showed that at least 172 participants were needed to detect a medium-sized effect ($f = .25$) with 90% power in a between-subjects design ($\alpha = .05$). We recruited 205 participants through Credamo. Five participants failed the attention check item (i.e. 'Please select "strongly agree" for this item') and were excluded from the analyses, resulting in a final sample of 200 participants (114 women, 86 men; $M_{age} = 29.9$, $SD = 8.72$). Participants were randomly assigned to either the awe group ($n = 100$) or the control group ($n = 100$).

Procedure and measures

Upon entering the study, participants read an informed-consent form and indicated their voluntary agreement to participate. They were informed that they could withdraw at any time without penalty. All participants were instructed to watch a 3-minute video and then complete several follow-up questions. Following prior work on awe, in the awe condition, the video depicted breathtaking natural scenery designed to elicit awe (see Pan et al., 2024). In the control condition, participants watched a 3-minute video showing ordinary street scenes. All participants were asked to watch the video carefully and to imagine how they would feel if they were present in the depicted scenes.

Subsequently, participants in both groups completed 3-item awe-related appraisals after watching the video. Sample items included 'While watching the video, I experienced a sense of vastness'. Responses were given on a 7-point Likert scale (1 = *strongly disagree* to 7 = *strongly agree*), with higher scores corresponding to a greater sense of awe ($\alpha = 0.90$). In addition, they were asked to complete an emotional state self-assessment scale (including awe, fear, anger, joy; 1 = *not at all* to 7 = *extremely*).

Next, participants completed a 5-item authentic-self pursuit scale as in Study 3 (Jiang & Sedikides, 2022).

Sample items included 'Right now, I am motivated to pursue my authentic self'. Responses were given on a 7-point Likert scale (1 = *strongly disagree* to 7 = *strongly agree*), with higher scores corresponding to higher levels of authentic-self pursuit ($\alpha = 0.87$).

After that, we measured participants' willingness to engage in healthy lifestyles across the same three domains as in Studies 1–3: physical activity, nutrition, and spiritual growth. The scale consisted of eleven items in total, assessing intentions related to physical activity (4 items), healthy eating (3 items), and spiritual growth (4 items). Sample items included 'I would stick to a regular diet (e.g. have breakfast daily)', 'I would develop and strictly adhere to a structured exercise plan', and 'I would continuously seek new experiences and challenges'. Responses were rated on a 9-point Likert scale (1 = *very unlikely*, 9 = *very likely*), with higher scores indicating a stronger willingness to adopt a health-promoting lifestyle ($\alpha = 0.89$).

Finally, participants reported their demographic information before being debriefed and thanked.

Results and discussion

Manipulation check

An independent-sample t -test revealed that participants in the awe condition ($M = 5.87$, $SD = 0.84$) reported greater awe-related appraisals than those in the control condition ($M = 3.26$, $SD = 1.37$), $t(198) = 16.24$, $p < .001$, 95% CI [2.29, 2.92], $d = 2.30$. Moreover, participants in the awe condition ($M = 6.22$, $SD = 1.01$) felt greater awe than those in the control condition ($M = 2.57$, $SD = 1.55$), $t(198) = 19.71$, $p < .001$, 95% CI [3.28, 4.02], $d = 2.79$. Participants in the awe condition experienced increased joy ($M = 5.63$, $SD = 1.21$) compared to the control condition ($M = 4.14$, $SD = 1.80$), $t(198) = 6.87$, $p < .001$, 95% CI [1.06, 1.92], $d = 0.97$. The two conditions did not differ in fear, $t(198) = 0.19$, $p = .85$, and anger, $t(198) = 1.78$, $p = .08$.

Authentic-self pursuit

An independent samples t -test revealed that participants in the awe condition ($M = 6.08$, $SD = 0.67$) reported a higher level of authentic-self pursuit than those in the control condition ($M = 5.54$, $SD = 1.03$), $t(198) = 4.42$, $p < .001$, 95% CI [0.30, 0.78], $d = 0.62$. These results remained significant when joy, gender, age, and SSC were controlled, $F(1, 194) = 5.11$, $p = .025$, $\eta_p^2 = 0.03$, 90% CI [0.00, 0.07].

Health-promoting lifestyles

Participants in the awe condition ($M = 7.73$, $SD = 0.71$) reported a higher willingness to engage in health-

promoting lifestyles than those in the control condition ($M = 6.99$, $SD = 1.22$), $t(159.19) = 5.26$, $p < .001$, 95% CI [0.46, 1.02], $d = 0.74$. The effect of condition remained significant after controlling for joy, gender, age, and SSC, $F(1, 194) = 8.76$, $p = .003$, $\eta_p^2 = 0.04$, 90% CI [0.01, 0.10].

The mediating role of authentic-self pursuit

We performed a bootstrapping mediation analysis with 5,000 iterations. In particular, we modeled the condition (1 = awe condition, 0 = control condition) as the independent variable, authentic-self pursuit as the mediator, and health-promoting lifestyles as the dependent variable, with demographic variables and joy as controls. The result indicated a significant indirect effect of authentic-self pursuit, $b = 0.13$, $SE = 0.04$, 95% CI [0.07, 0.20] (see Figure 3).

Study 4a provided experimental support for the proposed mediation pathway. By inducing state awe, we demonstrated that awe increased individuals' willingness to engage in health-promoting lifestyles and enhanced their motivation to pursue the authentic self. Authentic-self pursuit, in turn, significantly mediated the effect of awe on health-promoting lifestyle intentions, even after controlling for joy and demographic variables.

These findings extend the correlational evidence from Studies 1–3 by showing that the effect of awe generalizes from dispositional tendencies to situationally induced emotional states. However, because authentic-self pursuit was measured rather than directly manipulated, additional evidence was needed to establish its independent causal role.

Study 4b

Following the causal chain design, Study 4b further examined the mediator's causal effect on the dependent variable. In other words, we aimed to examine whether experimentally manipulating authentic-self pursuit

would affect the willingness to engage in health-promoting lifestyles.

Method

Participants

Study 4b used a similar design to Study 4a, with both being between-subjects experiments. Therefore, as in Study 4a, Study 4b needed to recruit 172 participants to ensure the same statistical power. Two hundred participants were recruited from Credamo. Four participants failing to complete the study were excluded from all analyses, leaving 196 participants (70.92% women; $M_{\text{age}} = 29.70$, $SD = 8.69$). Participants were randomly assigned to either the high authentic-self ($n = 100$) or the low authentic-self condition ($n = 96$).

Procedure and measures

After providing informed consent acknowledging that their participation was voluntary and data would remain confidential, participants were randomly assigned to a high or low authentic-self pursuit condition and completed a writing task. In the high authentic-self pursuit condition, participants first read the following passage: 'You are deeply motivated to pursue your true self. You have a strong inner desire for your actions, decisions, and way of life to reflect your core values and beliefs, and you strive to live in alignment with your authentic identity'. In contrast, in the low authentic-self pursuit condition, participants read: 'You have little motivation to pursue your true self. You rarely reflect on your core values and beliefs, and your actions and decisions are mostly guided by external expectations. Even when you sense a disconnect between your behavior and inner desires, you do not consider it problematic or feel the need to make changes'. All participants were then instructed to spend 2 minutes vividly imagining themselves in the described state and to briefly write

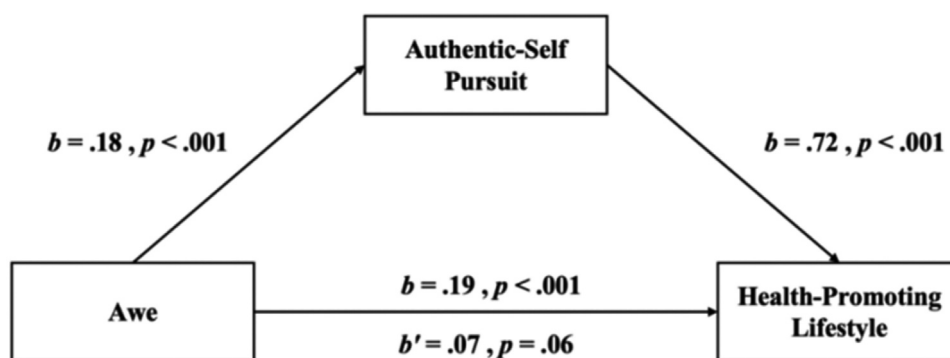


Figure 3. Authentic-self pursuit mediates the effect of awe on health-promoting lifestyles in Study 4a.

a response to the prompt: 'Imagine yourself in this state – how would you feel, what would you do, and what kind of situations might unfold in your life?'. Subsequently, participants completed three items adapted from Study 3 as a manipulation check for authentic-self pursuit ($\alpha = 0.86$; e.g. 'At this moment, I feel a strong motivation to pursue my authentic self'.) and the same health-promoting lifestyles scales as in Study 4a ($\alpha = 0.92$).

Finally, they reported their demographic information before they were thanked and debriefed.

Results and discussion

Manipulation check

An independent samples *t*-test revealed that participants in the high authentic-self pursuit condition ($M = 6.12$, $SD = 0.73$) reported significantly higher levels of authentic-self pursuit compared to those in the low authentic-self pursuit condition ($M = 5.36$, $SD = 1.37$), $t(194) = 4.78$, $p < .001$, 95% CI [0.44, 1.06], $d = 0.69$, validating our manipulation method.

Health-promoting lifestyles

Participants in the high authentic-self pursuit condition exhibited a significantly greater willingness to engage in health-promoting behaviors ($M = 3.71$, $SD = 0.46$) than those in the low authentic-self pursuit condition ($M = 3.33$, $SD = 0.77$), $t(194) = 4.10$, $p < .001$, 95% CI [0.19, 0.55], $d = 0.59$. The effect of condition remained significant after controlling for gender, age, and SSC, $F(1, 191) = 17.13$, $p < .001$, $\eta_p^2 = 0.08$, 90% CI [0.03, 0.15]. This pattern was consistent across all three subdimensions, with the authentic-self pursuit condition showing significant effects on physical activity, nutrition, and spiritual growth (for brevity, detailed results are presented in the *Supplementary Materials*).

Study 4b provided direct evidence for the causal role of authentic-self pursuit in increasing participants' willingness to engage in health-promoting lifestyles. By experimentally manipulating authentic-self pursuit, we demonstrated that enhancing individuals' motivation to pursue their authentic self led to greater willingness to adopt health-promoting lifestyles across all domains, including physical activity, nutrition, and spiritual growth. These findings indicate that authentic-self pursuit independently contributes to individuals' intentions to practice a health-promoting lifestyle. Taken together, Studies 4a and 4b supported our mediation model at the causal level, such that the effect of awe on health-promoting lifestyles was mediated by authentic-self pursuit.

General discussion

Given the critical role of health-promoting lifestyles in maintaining physical and mental well-being (Husain & Anas, 2016; Sharma et al., 2024), the present research examined whether and how the experience of awe influences individuals' engagement in such lifestyles. Specifically, we investigated the mediating role of authentic-self pursuit in this relationship. Across five studies, our findings consistently supported these hypotheses. Specifically, Studies 1–3, using multi-wave longitudinal designs, demonstrated that dispositional awe positively predicted engagement in health-promoting lifestyles, with Study 3 further confirming the mediating role of authentic-self pursuit. Study 4 further provided causal evidence for our hypothesized mediation model by experimentally manipulating awe (Study 4a) and authentic-self pursuit (Study 4b), employing a causal chain design. Collectively, these studies provide converging evidence that awe promotes engagement in health-promoting lifestyles via authentic-self pursuit at both dispositional and situational levels.

Theoretical implications

To the best of our knowledge, this is the first study to demonstrate awe as a novel antecedent of health-promoting lifestyles. Traditional models of health behavior have predominantly emphasized cognitive determinants (e.g. health beliefs, intentions, and self-efficacy) and social influences (e.g. social norms and support), while the role of discrete emotions has received comparatively less attention. Among the studies that do address emotions, much of the existing research has concentrated on their influence on hedonic food consumption, often yielding inconsistent findings concerning the role of positive emotions (e.g. Ferrer et al., 2020). The present study identifies awe as a distinctive positive emotion that motivates engagement in healthy lifestyles that are multidimensional. In addition, unlike many positive emotions that are ego-reinforcing or hedonically oriented, awe is inherently self-transcendent and outward-oriented, which may explain its unique capacity to inspire lifestyle changes that support long-term well-being. By establishing awe as a specific emotional antecedent of healthy lifestyles, our findings extend affective science into the domain of health psychology and enrich existing models with a motivational pathway grounded in emotional experience.

Our findings empirically broaden the scope of awe's salutary influence. Research on awe has documented a suite of beneficial aftereffects on cognition,

psychological health, and social functioning (for reviews, Jiang et al., 2024; Lucht & van Schie, 2024). For example, both trait awe and briefly induced awe have been shown to reduce reactivity to daily stressors and facilitate well-being and prosocial behavior (e.g. Bai et al., 2021; Monroy & Keltner, 2023; Piff et al., 2015). Beyond this knowledge, our study demonstrates that awe also fosters engagement in health-promoting behaviors, thereby extending its known psychological and social benefits into the domain of personal health practices. Given that health-promoting behaviors are foundational to both physical and mental well-being, our findings provide a concrete behavioral pathway through which awe contributes to human flourishing – highlighting its role not just in shifting emotional experience, but in supporting sustainable self-regulation and personal growth.

Finally, we found that awe prompts individuals to pursue their authentic self, which in turn mediates the effect of awe on health-promoting behaviors. Humanistic and positive psychology perspectives treat authenticity as fundamental to self-actualization: Maslow (1961) described authenticity – ‘the reduction of phoniness’ – as ‘the key determinant in self-actualization and optimal functioning’. Recent empirical research echoes this view by emphasizing the positively valenced nature of the authentic self (e.g. Guenther et al., 2024). For instance, individuals’ state authenticity increases when they embrace positive self-beliefs and self-expressions (Bailey & Iyengar, 2023). In other words, our authentic self is not the totality of all our expressions and aspects, but a core self-concept of our positive attributes. Striving to be true to this authentic (positive) self naturally motivates people to engage in growth-oriented behaviors (e.g. adopting a healthier lifestyle) that align with their optimal function. Corresponding to this view, our findings suggest that activating people to pursue their true selves is an effective way to motivate them to practice a healthy lifestyle. Extending this perspective, our findings broaden the documented consequences of authenticity. Although prior research has consistently linked authenticity to psychological health outcomes, such as subjective well-being, life satisfaction, and adaptive self-regulation (Boyras et al., 2014; Li et al., 2023; Sedikides & Schlegel, 2024; Sutton, 2020), relatively few studies have directly examined whether authenticity predicts concrete health behaviors. By demonstrating that authentic-self pursuit is associated with the adoption of multidimensional health-promoting lifestyles, including physical activity, nutrition, and spiritual growth, our findings extend authenticity research beyond intrapsychic well-being to observable lifestyle practices. In doing so, we identify a behavioral pathway

through which authenticity contributes to both physical and psychological flourishing, showing that authenticity shapes not only how individuals feel, but also how they live.

Practical implications

The present findings suggest the potential practical value of leveraging awe-inducing experiences to promote healthier lifestyles. As a cost-effective and individually targeted psychological pathway, awe may serve as a feasible complement to existing health-promotion efforts. By promoting healthier lifestyles, awe-inducing experiences may have preventive value in helping individuals reduce risks associated with adverse health outcomes over time, thereby potentially contributing to broader efforts to reduce pressure on healthcare systems. Additionally, this approach could potentially alleviate illness-related suffering at the individual level. Relative to reactive, pathology-dependent medical interventions, awe-based approaches may yield benefits across individual and societal levels by encouraging healthier lifestyles before more serious health problems emerge.

Limitations and future orientations

While the findings were robust across five studies, several limitations warrant consideration. First, although a vast natural landscape has been found to successfully elicit awe and was used in the current research, stimuli that are vast in terms of sensory detail and conceptual breadth (e.g. a virtuoso’s concert, a masterpiece painting, or literature) may also induce awe. Moreover, awe experiences may vary in affective tone. Prior research suggests that awe can be accompanied by positive or negative emotions, and that some awe experiences are mixed with negative feelings such as fear or threat (Gordon et al., 2017; Yuan et al., 2024). Future research could examine whether awe elicited by different types of stimuli and affective tones has distinct implications for health-promoting lifestyles. Second, although the present research emphasized the positive effects of authentic-self pursuit from a self-related perspective, alternative explanatory mechanisms may also account for the observed effects. For example, from a cognitive perspective, awe may foster a holistic and abstract information-processing style (Septianto et al., 2023), which could motivate individuals to pursue long-term goals such as engaging in health-promoting behaviors (Cohen & Babey, 2012). Future research could directly compare these mechanisms to clarify the underlying processes. Third, the present research relied on self-

reported measures of health-promoting lifestyles and behavioral intentions. In Studies 1–3, participants retrospectively reported their engagement in health-promoting behaviors over the past month, whereas Studies 4a and 4b assessed intentions to engage in health-promoting lifestyles rather than subsequent actual behavior. Although such intentions are meaningful proximal indicators of health-related motivation, they may not always translate into actual behavioral enactment. Future research could incorporate more objective behavioral indicators, such as wearable-device data on physical activity, dietary records, or app-based tracking, as well as longer follow-up assessments, to examine whether awe predicts real-world changes in health behavior and whether these behaviors can be maintained over time. Finally, although we conceptualized health-promoting lifestyle as a composite construct, awe may exert differential influences across its specific components, such as physical activity, dietary practices, and spiritual growth. Future research could examine whether awe operates through distinct psychological pathways in shaping these domains, thereby providing a more nuanced understanding of how awe influences health-related behavior.

Conclusion

Five studies consistently demonstrated that awe, either as a chronic trait or a temporarily induced state, facilitates health-promoting lifestyles. In addition, this effect was further accounted for by authentic-self pursuit. The current study not only expands the antecedents of health-promoting behavior, but also offers a new perspective on the role of awe in supporting individuals' physical and psychological well-being.

Note

1. To ensure that our measure of healthpromoting behaviors captured only selfdirected (not interpersonal) actions when testing the effect of a selftranscendent emotion (i.e. awe) on selfdirected behavior, we deleted both the Health Management and Health Responsibility dimensions.

Author contributions

CRedit: **Lei Cheng:** Conceptualization, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Supervision, Validation, Writing – original draft, Writing – review & editing; **Routing Zhang:** Data curation, Formal analysis, Investigation, Methodology, Validation, Visualization, Writing – original draft; **Xifan Yu:** Formal analysis, Investigation, Methodology; **Yuqi Zhang:** Formal analysis,

Investigation, Methodology; **Jiayan Mao:** Methodology, Validation, Writing – review & editing; **Xijing Wang:** Conceptualization, Formal analysis, Investigation, Methodology, Project administration, Supervision, Validation, Writing – original draft, Writing – review & editing.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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Data availability statement

The data of this study are available on OSF at https://osf.io/7tmpb/?view_only=2b8963b51407441b8f791547161e3aed

Open scholarship



This article has earned the Center for Open Science badges for Open Data and Open Materials through Open Practices Disclosure. The data and materials are openly accessible at https://osf.io/7tmpb/?view_only=2b8963b51407441b8f791547161e3aed

Ethics statement

This research was reviewed and approved by the Ethics Committee of the School of Psychology, Fujian Normal University (No: PSY250028). All procedures performed in this research involving human participants were in accordance with ethical standards. Informed consent was obtained from all individual participants involved in the study.

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