**SUPPLEMENTARY MATERIALS**

**Shining Our Humanity: The Benefits of Awe on Self-Humanity**

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# Stimulus Materials

## Study 1 (Correlational)

**Awe Measure**

-I often feel awe.

-I see beauty all around me.

-I feel wonder almost every day.

-I often look for patterns in the objects around me.

-I have many opportunities to see the beauty of nature.

-I seek out experiences that challenge my understanding of the world.

**Joy Measure**

-I often feel bursts of joy.

-I am an intensely cheerful person.

-I am often completely overjoyed when something good happens.

-On a typical day, many events make me happy.

-Good things happen to me all the time.

-My life is always improving.

**Self-Humanity**

-In general, I feel like I was mechanical and cold, like a robot [reversed].

-In general, I feel like I was refined and cultured.

-In general, I feel like I was rational and logical, like I was intelligent.

-In general, I feel like I lacked self-restraint, like an animal [reversed].

-In general, I feel like I was unsophisticated [reversed].

-In general, I feel like I was open minded, like I could think clearly about things.

-In general, I feel that I was emotional, like I was responsive and warm.

-In general, I feel superficial like I had no depth [reversed].

Attention Check Question: to demonstrate that you have paid careful attention to each question, for this item, please select 3.

**Demographic Information**

What is your age?

What is your gender?

1 = male, 2 = female

What is your ethnicity?

1 = Caucasian American, 2 = African American, 3 = Latin American, 4 = Asian American, 5 = Native American, 6 = Other

Think of this ladder as where people stand in our society. At the top of the ladder are the people that are the best off, those who have the most money, the most education, and the best jobs. At the bottom are the people who are the worst off, those who have the least money, the least education, and the worst jobs or no job. Click on the rung that you think best represents where you stand on the ladder relative to others. (1=lowest, 10=highest)



## Study 2a (Experimental)

**Manipulation (**To ensure all participants spent *at least* 3 minutes thinking carefully and providing thoughtful responses, the “>>” button appeared only after 3 minutes).

**Awe Manipulation**

Awe is defined as a “strong feeling of reverence, and also wonder” - the kind of feeling that freezes you in one spot and makes you want to memorize everything about your experience. Often, we feel awe in response to vast, beautiful landscapes and natural wonders such as tall mountains, expensive vistas, or large waterfalls. Other times, we might feel awe towards an idea that is amazing and wondrous such as the mysteries of the Universe.

Please recall and write about one memory for a specific time or event when you felt awe-inspired.

**Neutral Condition**

Please try to recall the last time you did your laundry. Take a few moments to get a strong mental image of this memory in your mind. Next, please write describing the experience, the accompanying feelings, and what you were thinking about during the experience.

**Manipulation Check**

The extent to which you are currently experiencing awe (1 = not at all, 7 = extremely).

**Self-Humanity**

Same as in Study 1 (e.g., Right now, I feel like I am rational and logical, like I am intelligent).

**Demographic Information**

Same as in Study 1.

**Attention Check Question**

Same as in Study 1.

## Study 2b (Experimental)

**Manipulation Check**

How do you feel right now? Please report the extent to which you are currently experiencing each of the following states.

-Awe

-Fear

-Sadness

-Happiness

**Self-Humanity**

- I have complex feelings.

-I can experience pain.

-I am capable of emotion.

-I can experience pleasure.

-I am capable of doing things on purpose.

-I am capable of planned actions.

-I have goals.

-I am highly conscious.

-I have a good memory.

-I can engage in a great deal of thought.

**Demographic Information**

Age, Gender and SSC are the same as in Study 1.

**Attention Check Question**

Same as in Study 1.

## Study 3 (Experimental)

**Manipulation (**To ensure all participants spent *at least* 3 minutes thinking carefully and providing thoughtful responses, the “>>” button appeared only after 3 minutes).

**Awe Manipulation**

Please try to recall an experience in your life when you perceived vastness either in physical or in social size and felt a need to adjust your mental structures (i.e., your thinking) to accommodate this new experience. Some examples might be seeing breath-taking view from high up on a mountain as depicted in some of the above pictures, or any other time during which you felt being blown away. The personal experience could pertain, albeit not necessarily, to one of the scenes depicted in the pictures. Please recall a specific experience rather than a general one. Please write at least five sentences describing the experience, the accompanying emotions, and what you were thinking about during the experience. Provide as much detail as you can.

**Neutral Condition**

Please try to recall the last time you did your laundry such as in the settings depicted in some of the above pictures, or other settings in your daily life. The personal experience could pertain, but not necessarily, to one of the scenes depicted in the pictures. Please recall a specific experience rather than a general one. Please write at least five sentences describing the experience, the accompanying emotions, and what you were thinking about during the experience. Provide as much detail as you can.

**Manipulation Check**

Same as in Study 2a.

**Authentic-Self Pursuit**

Please think about who you truly are, and all the things that are important to you, such as your goals, aspirations, and values. According to psychologists, this is your authentic self. Please respond to the following statements based on how you are feeling right now. Please remember that these are subjective questions and so that there are no right or wrong answers.

-I am motivated to pursue my authentic self.

-I am feeling excited about pursuing my authentic self.

-I want to put more time and effort into pursuing my authentic self.

-I am feeling capable of pursuing my authentic self.

-I am looking forward to pursuing my authentic self.

**Self-Humanity**

Same as in Study 1.

**Demographic Information**

Same as in Study 2b.

**Attention Check Question**

Same as in Study 1.

## Study 4 (Experimental)

**Awe Measure**

Same as in Study 1.

**Authenticity Manipulation (**To ensure all participants spent *at least* 3 minutes thinking carefully and providing thoughtful responses, the “>>” button appeared only after 3 minutes).

In contemporary society, people very often conceal their genuine goals, opinions, emotions, and values in their life. Now, please recall a time when you had this feeling or experience. Then, please describe this situation—what happened, how you felt, etc. Please make it as detailed as possible.

**Neutral Condition**

Now, we would like you to recall and describe the last time you went to the grocery store. Try to relive this situation in your imagination. Then, please describe what happened, what you purchased, how you felt, etc. Please make it as detailed as possible.

**Manipulation Check**

-In the experience recalled, I was pursuing my authentic self.

-In the experience recalled, I was putting more time and effort into pursuing my authentic self.

-In the experience recalled, I was feeling capable of pursuing my authentic self.

**Self-Humanity**

Same as in Study 2a.

**Demographic Information**

Same as in Study 2b.

**Attention Check Question**

Same as in Study 1.

## Study 5 (Experimental)

**Awe Manipulation**

https://v.youku.com/v\_show/id\_XNTg4ODY4MTI4MA==.html?spm=a1z3jc.11711052.0.0&isextonly=1

**Neutral Condition**

https://v.youku.com/v\_show/id\_XNDgxODMzOTk0OA==.html?spm=a1z3jc.11711052.0.0&isextonly=1

**Manipulation Check**

-The extent to which you are currently experiencing awe.

-Currently, I feel a sense of vastness.

-Currently, my worldview is challenged.

-Currently, I see the world differently

**Self-Smallness**

Please indicate your agreement or disagreement with the following statements based on how you are feeling right now (1 = *strongly disagree*, 7 = *strongly disagree*).

-I feel relatively small.

-I feel insignificant.

-Please choose the circle that best describes how big or small you feel about yourself.



-Please indicate which one of the following drawings best describes yourself.



**Authentic-Self Pursuit**

Same as in Study 3.

**Self-Humanity**

Same as in Study 2a.

**Demographic Information**

Same as in Study 2b.

## Study 6 (Experimental)

**Manipulation Check**

How do you feel right now? Please report the extent to which you are currently experiencing each of the following states.

-Anger

-Awe

-Disgust

-Fear

-Pride

-Sadness

-Happiness

**Self-Smallness**

Same as in Study 5.

**Authentic-Self Pursuit**

Same as in Study 3.

**Self-Humanity**

Same as in Study 2b.

**Demographic Information**

Same as in Study 2b.

# Ancillary Analyses. I: Correlations Among Variables in Studies 1-6

|  |
| --- |
| **Table 1** Correlations between measures in Study 1 |
|  | 1 | 2 | 3 |
| 1 Awe | 1 |  |  |
| 2 Joy | 0.67\*\*\* | 1 |  |
| 3 Self-humanity | 0.46\*\*\* | 0.49\*\*\* | 1 |

\**p* < .05, \*\**p* < .01, \*\*\**p* < .001.

|  |
| --- |
| **Table 2** Correlations between measures in Study 2a |
|  | 1 | 2 | 3 |
| 1 Condition | 1 |  |  |
| 2 Awe | .89\*\*\* | 1 |  |
| 3 Self-humanity | .19\*\* | .24\*\*\* | 1 |

\**p* < .05, \*\**p* < .01, \*\*\**p* < .001.

|  |
| --- |
| **Table 3** Correlations between measures in Study 2b |
|  | 1 | 2 | 3 | 4 | 5 | 6 |
| 1 Condition | 1 |  |  |  |  |  |
| 2 Awe | .62\*\*\* | 1 |  |  |  |  |
| 3 Fear | .18\* | .25\*\*\* | 1 |  |  |  |
| 4 Sadness | .01 | .08 | .50\*\*\* | 1 |  |  |
| 5 Happiness | .16\* | .39\*\*\* | -.003 | -.01 | 1 |  |
| 6 Self-humanity | .22\*\* | .34\*\*\* | -.004 | -.17\* | .39\*\*\* | 1 |

\**p* < .05, \*\**p* < .01, \*\*\**p* < .001.

|  |
| --- |
| **Table 4** Correlations between measures in Study 3 |
|  | 1 | 2 | 3 | 4 |
| 1 Condition | 1 |  |  |  |
| 2 Awe | .62\*\*\* | 1 |  |  |
| 3 Authentic-self pursuit | .24\*\*\* | .36\*\*\* | 1 |  |
| 4 Self-humanity | .18\* | .26\*\*\* | .44\*\*\* | 1 |

\**p* < .05, \*\**p* < .01, \*\*\**p* < .001.

|  |
| --- |
| **Table 5** Correlations between measures in Study 4 |
| *Authentic-self reduction condition* |  |
|  | 1 | 2 |
| 1 Awe | 1 |  |
| 2 Self-humanity | .08 | 1 |
|  |  |  |
| *Control condition* |  |  |
|  | 1 | 2 |
| 1 Awe | 1 |  |
| 2 Self-humanity | .49\*\*\* | 1 |

\**p* < .05, \*\**p* < .01, \*\*\**p* < .001.

|  |
| --- |
| **Table 6** Correlations between measures in Study 5 |
|  | 1 | 2 | 3 | 4 | 5 | 6 |
| 1 Condition | 1 |  |  |  |  |  |
| 2 Awe | .66\*\*\* | 1 |  |  |  |  |
| 3 Awe-related appraisals  | .67\*\*\* | .74\*\*\* | 1 |  |  |  |
| 4 Authentic-self pursuit | .24\*\*\* | .38\*\*\* | .48\*\*\* | 1 |  |  |
| 5 Self-smallness | .31\*\*\* | .32\*\*\* | .33\*\*\* | .14\* |  |  |
| 6 Self-humanity | .18\*\* | .25\*\*\* | .30\*\*\* | .58\*\*\* | .14\* | 1 |

\**p* < .05, \*\**p* < .01, \*\*\**p* < .001.

|  |
| --- |
| **Table 7** Correlations between measures in Study 6 |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 1 Condition | 1 |  |  |  |  |  |  |  |  |  |  |  |
| 2 Anger | .10 | 1 |  |  |  |  |  |  |  |  |  |  |
| 3 Awe | .79\*\*\* | .10 | 1 |  |  |  |  |  |  |  |  |  |
| 4 Fear | .33\*\*\* | .39\*\*\* | .34\*\*\* | 1 |  |  |  |  |  |  |  |  |
| 5 Disgust | .01 | .38\*\*\* | .05 | .33\*\*\* | 1 |  |  |  |  |  |  |  |
| 6 Pride | -.11 | -.12 | .05 | -.32\*\*\* | -.02 | 1 |  |  |  |  |  |  |
| 7 Sadness | .15\* | .24\*\*\* | .09 | .31\*\*\* | .29\*\*\* | -.17\* | 1 |  |  |  |  |  |
| 8 Happiness | -.46\*\*\* | -.17\* | -.33\*\*\* | -.35\*\*\* | -.09 | .45\*\*\* | -.35\*\*\* | 1 |  |  |  |  |
| 9 Awe-related appraisals  | .65\*\*\* | .12 | .73\*\*\* | .29\*\*\* | .02 | .11 | .07 | -.23\*\* | 1 |  |  |  |
| 10 Authentic-self pursuit | .15\* | -.08 | .34\*\*\* | -.20\*\* | -.06 | .38\*\*\* | -.19\*\* | .06 | .37\*\*\* | 1 |  |  |
| 11 Self-smallness | .75\*\*\* | .05 | .67\*\*\* | .30\*\*\* | -.01 | -.21\*\* | .13 | -.48\*\*\* | .55\*\*\* | .12 | 1 |  |
| 12 Self-humanity | .18\* | -.14 | .29\*\*\* | -.05 | -.11 | .24\*\*\* | -.18\* | .07 | .27\*\*\* | .49\*\*\* | .06 | 1 |

\**p* < .05, \*\**p* < .01, \*\*\**p* < .001.

# Ancillary Analyses. Ⅱ: The Level of Awe as IV

**Study 2a**

The level of awe could positively predict self-humanity, *r* = .25, *p* < .001. In addition, we found that the results remained significant, β = .23, *t* = 3.47, *p* < .001, after controlling for gender, age, and SSC.

**Study 2b**

The level of awe could positively predict self-humanity, *r* = .34, *p* < .001. In addition, we found that the results remained significant, β = .22, *t* = 2.95, *p* = .004, after controlling for gender, age, and SSC.

**Study 3**

*Authentic-Self Pursuit and Self-Humanity*. The level of awe could positively predict authentic-self pursuit (*r* = .26, *p* < .001) and self-humanity (*r* = .36, p < .001). In addition, we found that the results remained significant after controlling for gender, age, and SSC (authentic-self pursuit: β = .35, *t* = 5.37, *p* < .001; self-humanity: β = .27, *t* = 4.12, *p* < .001).

*The Mediation Role of Authentic-Self Pursuit.* We conducted a bootstrapping mediation analysis with 5000 iterations (Model 4; Hayes, 2013). In particular, we entered the level of awe as the independent variable, authentic-self pursuit as the mediator, self-humanity as the dependent variable, and demographic variables as control variables. The result showed that the indirect effect was significant (*b* = 0.59, SE = 0.15, 95% CI [0.33, 0.91], and the direct effect was insignificant (*b* = 0.48, SE = 0.25, 95% CI [-0.02, 0.98]). The findings indicated that authentic-self pursuit could act as a significant mediator for the relationship between the level of awe and self-humanity.

**Study 5**

*Self-Humanity, Authentic-Self Pursuit, and* *Self-Smallness*. The level of awe could positively predict self-humanity (*r* = .25, *p* < .001), authentic-self pursuit (*r* = .38, *p* < .001), and self-smallness (*r* = .32, *p* < .001). In addition, we found that the results remained significant after controlling for gender, age, and SSC (self-humanity: β = .26, *t* = 4.10, *p* < .001; authentic-self pursuit: β = .39, *t* = 6.55, *p* < .001; self-smallness: β = .32, *t* = 5.07, *p* < .001).

*The Mediation Role of Authentic-Self Pursuit* versus *Self-Smallness.* We conducted a bootstrapping mediation analysis with 5000 iterations (Model 4; Hayes, 2013). In particular, we entered the level of awe as the independent variable, authentic-self pursuit and self-smallness as the mediators, self-humanity as the dependent variable, and demographic variables as control variables. The result showed that the indirect effect of authentic-self pursuit was significant (*b* = .13, SE = .03, 95% CI [0.09, 0.19]) and the indirect effect of self-smallness was insignificant (*b* = .01, SE = .01, 95% CI [-0.02, 0.04]). The direct effect of the level of awe on self-humanity was not significant, *b* = .02, *SE* = .04, 95% CI [-0.06, 0.10]. These findings indicated that authentic-self pursuit mediated the effect of the level of awe on self-humanity, but self-smallness did not.

**Study 6**

*Self-Humanity, Authentic-Self Pursuit, and Self-Smallness*. The level of awe could positively predict self-humanity (*r* = .29, *p* < .001), authentic-self pursuit (*r* = .34, *p* < .001), and self-smallness (*r* = .67, *p* < .001). We found that after controlling for happiness, sadness, and fear, the level of awe was also positively associated with self-humanity (β = .27, *t* = 3.86, *p* < .001), authentic-self pursuit (β = .47, *t* = 6.81, *p* < .001), and self-smallness (β = .57, *t* = 10.60, *p* < .001).

*The Mediation Role of Authentic-Self Pursuit* versus *Self-Smallness.* We conducted a bootstrapping mediation analysis with 5000 iterations (Model 4; Hayes, 2013). In particular, we entered the level of awe as the independent variable, authentic-self pursuit and self-smallness as the mediators, self-humanity as the dependent variable, and demographic variables as control variables. The result showed that the indirect effect of authentic-self pursuit was significant (*b* = .05, SE = .02, 95% CI [0.01, .10]) and the indirect effect of self-smallness was insignificant (*b* = -.03, SE = .03, 95% CI [-0.09, 0.02]). The direct effect of the level of awe on self-humanity was also significant, *b* = .09, *SE* = .03, 95% CI [0.02, 0.15]. These findings indicated that authentic-self pursuit mediated the effect of the level of awe on self-humanity, but self-smallness did not.

# Ancillary Analyses. Ⅲ: Testing Moderated Mediations

**Study 5**

When gender was entered as the moderator, the moderated mediations were *not* significant (authentic-self pursuit: an index of moderated mediation of 0.02, SE = 0.06, 95% CI [-1.00, 0.16]; self-smallness: an index of moderated mediation of -0.003, SE = 0.08, 95% CI [-0.16, 0.15]).

When age was the moderator, the moderated mediations were *not significant* (authentic-self pursuit: an index of moderated mediation of 0.002, SE = 0.003, 95% CI [-0.004, 0.01]; self-smallness: an index of moderated mediation of 0.005, SE = 0.004, 95% CI [-0.003, 0.01]).

When SSC was the moderator, the moderated mediations were *not significant* (authentic-self pursuit: an index of moderated mediation of 0.002, SE = 0.02, 95% CI [-0.05, 0.04]; self-smallness: an index of moderated mediation of 0.004, SE = 0.02, 95% CI [-0.04, 0.05]).

**Study 6**

When gender was the moderator, the moderated mediations were *not significant* (authentic-self pursuit: an index of moderated mediation of -0.02, SE = 0.07, 95% CI [-0.13, 0.16]; self-smallness: an index of moderated mediation of 0.20, SE = 0.14, 95% CI [-0.10, 0.46]).

When age was the moderator, the moderated mediations were *insignificant* (authentic-self pursuit: an index of moderated mediation of -0.001, SE = 0.002, 95% CI [-0.007, 0.003]; self-smallness: an index of moderated mediation of -0.002, SE = 0.009, 95% CI [-0.021, 0.01]).

When SSC was the moderator, the moderated mediations were *not significant* (authentic-self pursuit: an index of moderated mediation of 0.02, SE = 0.02, 95% CI [-0.02, 0.05]; self-smallness: an index of moderated mediation of 0.003, SE = 0.06, 95% CI [-0.11, 0.12]).