

- WESTERN CANADA MENTAL HEALTH SUMMIT -

IMPROVING SKILLS & COMPETENCIES FOR MENTAL HEALTH & EDUCATION PROFESSIONALS

WEDNESDAY, MAY 24, 2023 – FRIDAY, MAY 26, 2023

Best Western Premier Calgary Plaza Hotel & Conference Centre
1316 33 St NE, T2A 6B6, Calgary, AB

JONAH PAQUETTE, PSY.D.

WORKSHOP #22

The “Wow” Effect: How Awe and Wonder Make Us Happier,
Healthier, and More Connected

Day Three | 8:30am - 11:45pm



Jonah Paquette, PsyD, is a clinical psychologist, international speaker, and author. He is the author of *Real Happiness* (PESI Publishing, 2015), a self-help book in which he distills the key findings in the field of happiness research, and offers user-friendly tools to achieve lasting well-being. His second book, *The Happiness Toolbox* (PESI Publishing, 2018), a research-based self-help workbook, provides easy-to-use handouts and worksheets designed to increase happiness and life satisfaction.



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The “Wow” Effect

How experiencing awe makes us happier, healthier, and more connected

Western Canada Mental Health Summit, 2023

Jonah Paquette, Psy.D.
Author of *Awestruck*, *Happily Even After*, *The Happiness Toolbox*, and *Real Happiness*



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About Me

- Author of *Real Happiness*, *The Happiness Toolbox*, and *Awestruck*
- International Speaker and Organizational Consultant

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An unusual day...

- Record number of sick days
- State populations tripled
- Record-breaking marriage proposals
- Same distinct #hashtag
- Unusual Fashion Choices
- Strange Behaviors



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Reflection

- *What have been some of your most awe-inspiring experiences? Take a moment and identify one that comes to mind.*
- *How did you feel during and after the experience?*

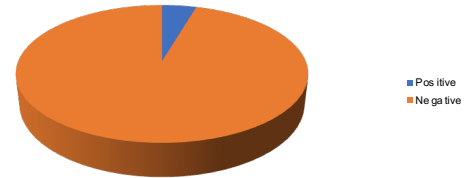
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What do you feel when you...

- Gaze up at the Milky Way?
- See a beautiful sunrise or sunset?
- Witness an act of great compassion or courage?
- Watch a child learn to walk?
- See a mind-blowing work of art?
- Attend an incredible performance?

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Ratio of Abstracts (1968-2000)



Historical Focus on the Negative

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The 3 “Happy Lives”

- Hedonic Happiness
 - Positive emotions > negative emotions
 - Positive emotions towards the past, present, and future
- Evaluative Happiness
 - Satisfaction with life
 - Are the conditions in my life generally satisfactory
- Eudaimonic Happiness
 - Meaning, Purpose, and a connection to something bigger than myself

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Keys for a Meaningful Life

- Gratitude
- Social Connection
- Empathy & Compassion
- Self-Compassion
- Mindfulness
- Cultivating Strengths
- Optimism
- Forgiveness
- Resilience
- Meaning & Purpose
- Awe

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What is Awe?

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Reflection

- How would you describe awe? What aspects of the experience come to mind for you?

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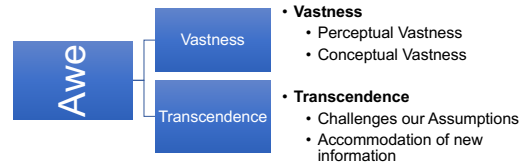
What is Awe?

The feeling we get in the presence of something vast that challenges our understanding of the world.



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Defining Awe

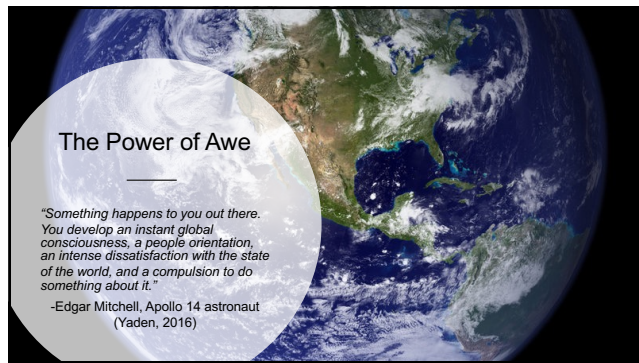


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The Power of Awe

"Something happens to you out there. You develop an instant global consciousness, a people orientation, an intense dissatisfaction with the state of the world, and a compulsion to do something about it."

-Edgar Mitchell, Apollo 14 astronaut
(Yaden, 2016)



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I'M SICK OF REPEATING MYSELF.

-HISTORY

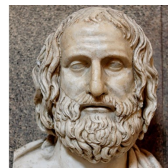
A Brief History of Awe

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Origins of the word "Awe"

- Old Norse: *agi* (or *ege*)
 - Fright or terror, particularly towards the divine
- Ancient Greek: *akhos*
 - Translates roughly to "pain"
- Later definitions of *awe*:
 - Referred increasingly towards a sense of reverence or veneration
 - Also shifted towards a more positive connotation over time

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Awe: A Religious State

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A Shift to the Secular

- Edmund Burke: the "sublime"
 - Awe through the everyday – symphonies, thunder, being in nature
- Immanuel Kant: the "mathematical sublime"
 - Akin to "conceptual awe"
- Ralph Waldo Emerson
 - Awe through nature
- John Muir

EDMUND BURKE

*A Philosophical Enquiry
into the Origin
of our Ideas of
the Sublime and Beautiful*



EDITED WITH AN INTRODUCTION
AND NOTES BY
JAMES T. BOULTON

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Awe in the Field of Psychology

- William James
 - The power of nature to elicit transcendent experiences
 - The melting down of our "confining selfhood"
- Sigmund Freud
 - "Oceanic Feeling"
- Abraham Maslow
 - "Peak Experiences"
- Viktor Frankl

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Modern Understandings of Awe

- First scientific paper on awe only written 15 years ago (Keltner & Haidt, 2003)
- Since then, a surge of research on the impact and benefits of awe
- No longer a luxury item, awe is now seen as an essential part of the good life
- Number of peer-reviewed journal articles has jumped from 1 (in 2003) to 15 (2018)

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Who Experiences Awe?

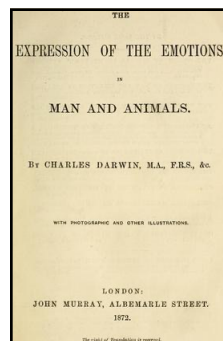
- Personality factors
 - Extraversion, Openness to New Experiences
- Character Traits
 - Optimism, Gratitude, Creativity, Love of Learning, Appreciation of Beauty
- Spirituality and Religion
 - No differences found overall, though sources of awe may differ
- Social Class
 - Slight link to lower-SES individuals

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Cross-Cultural Research

- Universal human emotion found across all cultures
- Differences in frequency of experiencing awe (Razavi, 2016)
 - Comparison of US, Poland, Malaysia, Iran
- Differences in sources of awe (Bai, 2017)
 - US/Europe: more likely to experience awe through nature or through themselves
 - East Asia: more likely to experience awe through another person

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Why do we experience Awe?

- Emotions not only serve a purpose, but developed within our species for specific evolutionary advantages
- Not merely a result of social learning
- But what purpose might awe serve?

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Reflection

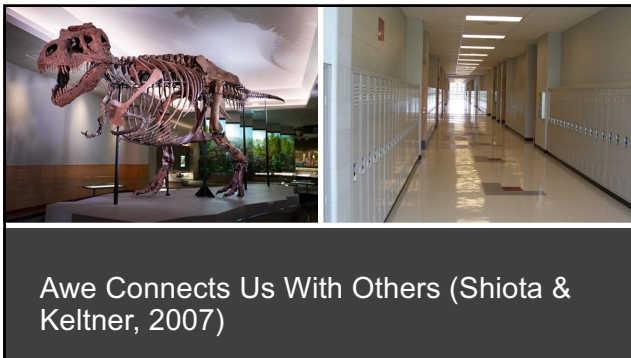
- Take a moment and think about a particularly awe-inspiring memory that you can recall
 - Where were you, who were you with, what was the experience
 - How did you feel? Anything you notice in your body?
- What do awe-inspiring experiences do to you? What effects do they have on your mind, body, how you feel towards others, your perspective, etc?

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The Purposes of Awe

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Awe Connects Us With Others (Shiota & Keltner, 2007)

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Awe
Connects
Us

Circle the picture that best describes your relationship with the community at large. (S = Self; C = Community at Large)

Bai (2017): Awe resulted in greater feelings of closeness with others in the community compared to neutral or negative experiences

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Awe Makes Us More Compassionate (Piff, 2015)

- 60 seconds gazing up at Eucalyptus grove or at Science building
- Staged "accident" would then occur
- Awe condition far more likely to help
- Piff: "Awe arouses altruism"



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Awe Increases Generosity (Rudd, 2012)

- Brief writing exercise
 - Happy memory or awe-inspiring memory
- Awe condition
 - Higher levels of patience
 - Greater willingness to donate time or money to a good cause

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Awe Increases Generosity (Prade, 2016)

- First study looked at how frequently people experienced various emotional states.
- Participants also given 10 lottery tickets and that they'd be entered for a cash prize
- Could either keep all the tickets, or share with an unknown stranger
- Awe linked to 40% greater generosity



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Awe Increases Generosity (Prade, 2016)

- Follow-up study compared people reflecting on awe-inspiring experiences to neutral experiences
- Then asked to imagine winning the lottery
- Reflecting on awe resulted in significantly increased generosity and sharing of the potential prize money

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Awe Makes Us More Curious (Smith, 2016)



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Reflection

- *Beyond increased connection, compassion, and curiosity – what other benefits might you expect to see from the experience of awe?*

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Awe Enhances Positive Emotions (Joye, 2015)

- Participants watched slideshow of either awe-inspiring nature scenes or those that were more commonplace
- Both groups reported mood improvements, but awe condition led to vastly greater gains
- These findings also suggest that awe itself may play a major role in nature's healing powers

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Awe Increases Life Satisfaction (Rudd, 2012)

- Participants asked to read an awe-inspiring story or a more neutral one
- Then asked to rate their own overall life satisfaction
- Reflecting on awe resulted in significantly increased life satisfaction

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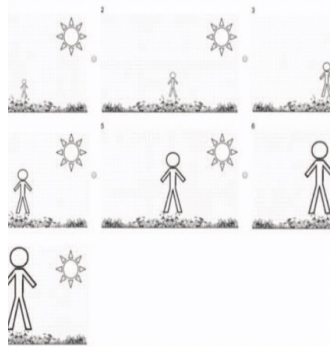
Lasting Mood Boosts (Stellar, 2017)

- Participants tracked mood and experiences of awe over several weeks
- On average, people experienced approximately 2 instances of awe per week
- Powerful awe experiences resulted in mood improvements even weeks later

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The *Small Self* (Bai, 2017)

- Awe reliably leads to a feeling of smallness relative to the world around us, a phenomenon known as "the small self."



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Awe Decreases Materialism

- Awe linked to a preference for spending \$ on experiences rather than material goods (Rudd, 2012)
- Awe leads to a decreased emphasis on money, and prioritization of other values (Jiang, 2018)



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Awe Lowers our Stress (Anderson, 2018)

- Whitewater rafting adventure for war veterans and inner-city high schoolers
- Led to dramatic decreases in stress and PTSD symptoms
- Improved overall well-being, optimism, and social functioning
- Awe as the "active ingredient" in nature



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Awe Changes Our Time Perspective (Rudd, 2012)

- The rise of "time poverty"
- Experiences of awe "stretch out time"
 - Participants reported a sense that time had expanded
 - More likely to volunteer time to charity
 - Reduced overall stress



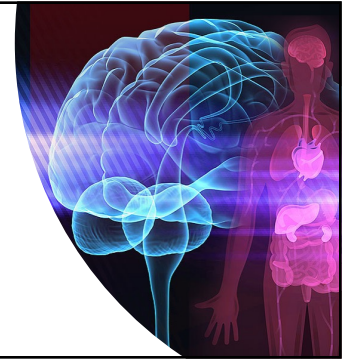
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Awe Increases Humility (Stellar, 2018)

- Individuals who reported more awe experiences rated by both self and peers as being:
 - Less self-absorbed
 - Less narcissistic
 - More humble
 - Possessing a more accurate understanding of their own strengths and weaknesses

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Our Brain and Body on Awe



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Reflection

What have been some of the most notable physical effects you've noticed during moments of awe?

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Awe and Inflammation (Stellar et al., 2015)

Short-Term/Acute

- Fights disease and infection
- Restores us to homeostasis
- Signals immune system to spring to action
- Heals and repairs damaged tissue
- Localized

Chronic

- Persistent, low-grade
- Widespread (rather than localized)
- Linked to heart disease, stroke, Alzheimers, depression, and much more

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Awe and Inflammation

DPES Subscale	IL-6	IL-6
Awe	-0.33***	-0.33**
Amusement	-0.02	0.16
Compassion	-0.09	0.05
Contentment	-0.20*	0.04
Joy	-0.23*	-0.11
Love	-0.10	-0.07
Pride	-0.21*	-0.009

Note. β values for positive emotions predicting IL-6 and controlling for participant's BMI. In column 1, emotions are separately entered into regressions and in column 2 they are simultaneously entered.
* $p < .05$. ** $p < .01$. *** $p < .001$.

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Your Brain on Awe (Newberg, 2016)

- Activation in areas linked to interpersonal bonding and release of oxytocin
- Decreased activation of Default Mode Network (DMN)
- Decreased activation in the parietal lobe
 - Contributes to sense of self, orients us to world around us
 - May explain the "out of body" experience many report during moments of awe
- Decreased activation of subgenual prefrontal cortex
 - Linked to anxious rumination

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Awe and the Brain

- Sixty audience members wearing electroencephalogram (EEG) headgear
- Able to detect unique and specific brainwave "signatures" during particular awe-inspiring moments during the performance



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Awe and our Nervous System

- Typically work in reverse of each other (like a hot and cold faucet)
- Awe appears to be a rare state in which both branches are activated simultaneously

AUTONOMIC NERVOUS SYSTEM

• SYMPATHETIC

– Fight or Flight



• PARASYMPATHETIC

– Rest and Digest



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Verbal and Nonverbal expressions of awe

Vocal bursts: listeners able to identify "awe vocalizations" compared to other emotions (Simon-Thomas et al, 2009)

Similar verbal expressions across both Western and non-western cultures (Cordaro, 2016)

Facial expressions: widening of eyes, jaw slightly dropped, raised eyebrows common across cultures (Shiota, 2003; Campos, 2013; Anderson, 2017)

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Amusement	Awe	Contentment	Disgust	Joy	Surprise	Fear
Moderate to strong association (> 50%)						
AU6—85%	AU25—80%	AU6—56%	AU1—58%	AU6—79%	AU6—69%	AU6—70%
Cheek raiser	Lips apart	Cheek raiser	Inner brow raise	Cheek raiser	Cheek raiser	Cheek raiser
AU12—95%	AU26/27—80%	AU12—85%	AU4—56%	AU12—97%	AU12—84%	AU12—80%
Lip corner puller	Jaw drop/mouth stretch	Lip corner puller	Brow lowerer	Lip corner puller	Lip corner puller	Lip corner puller
AU125—81%	AU1—79%	AU24—60%		AU125—50%	AU125—54%	95%
Lips apart	Inner brow raise	Lip pressor		Lips apart	Lips apart	Sit up
AU 26/27—68%	AU5—61%					AU24—60%
Jaw drop/mouth stretch	Upper lid raiser					Lip pressor
Weak association (25–49%)						
49%	AU37—27%	38%	AU24—38%	34%	AU55/56—49%	45%
Head bounce	Head forward	Head nod	Lip pressor	Bounce	Head tilt	Shoulders back
AU55/56—34%		AU25—26%	Lip pressor	AU26/27—31%	AU43—26%	AU53—38%
Head tilt		Lips apart	Outer brow raise	Jaw drop/mouth stretch	Eyes closed	Head up
AU1—25%			AU55/56—37%			
Inner brow raise			Head tilt			
			37%			
			Forward lean			
			AU57—33%			
			Head forward			

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The Dark Side of Awe



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The Impact of Negative Awe

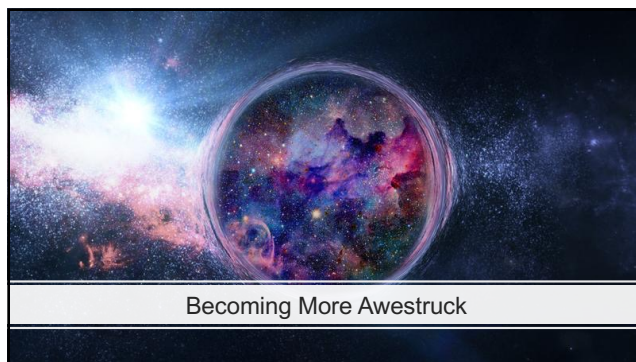
- 15-20% of reported awe experiences are negative (Piff, 2015)
- Threat-based awe Lower rates of positive emotions
 - Higher rates of anxiety and sadness
 - Greater activation of sympathetic nervous system
- However, negative awe does result in:
 - Increased altruism
 - Increased feelings of compassion
 - Increased feelings of connection

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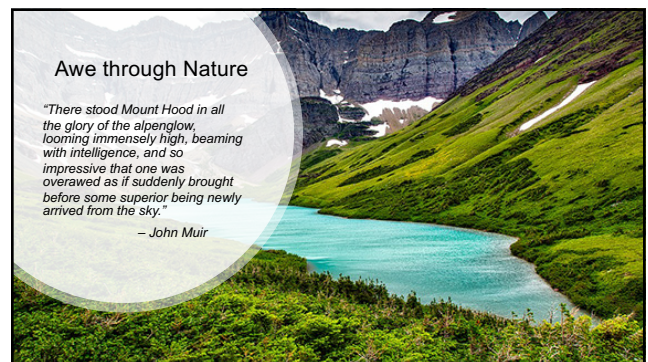
Incorporating Awe in Clinical Work

- Link Awe to the presenting problem
 - E.g., discuss the effects of awe on mood, stress, social belonging
- Explore past experiences the patient has had that we can see through this lens
- Assign realistic "awe homework" assignments in line with client preferences
 - E.g., short visits to nature, reading about awe-inspiring people, learning about topics of interest, connecting to art
 - Encourage journaling and savoring practices to accompany this
- Review and consolidate experience in next session

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Reflection

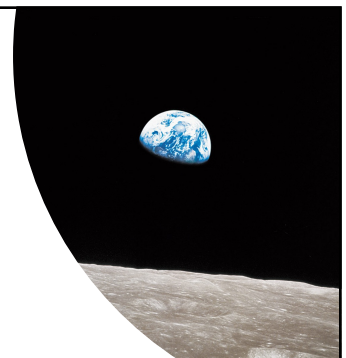
What have been some of your most memorable experiences of awe through nature?

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Awe through Vastness

"Look up at the stars and not down at your feet. Try to make sense of what you see, and wonder about what makes the universe exist. Be curious."

— Stephen Hawking



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Reflection

What is an experience of awe or wonder where you've felt small, yet connected to something bigger than yourself?

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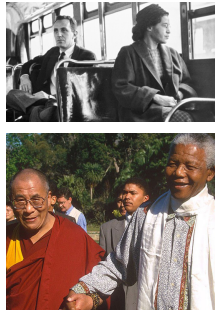
Mind-Bending Awe

"The feeling of awed wonder that science can give us is one of the highest experiences of which the human psyche is capable."
— Richard Dawkins

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Awe through Courage & Inspiration

"Awe is the best of man."
— Goethe



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Reflection

Who are some of the people, whether well-known or on a humbler scale, who evoke a feeling of wonder and elevation within you?

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Awe through Timelessness

"If spring came but once a century instead of once a year, or burst forth with the sound of an earthquake and not in silence, what wonder and expectation there would be in all hearts to behold the miraculous change."
— Henry Wadsworth Longfellow

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Awe from Gratefulness

"Gratitude bestows reverence, allowing us to encounter everyday epiphanies, those transcendent moments of awe that change forever how we experience life and the world."
— John Milton

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Reflection

What is one small experience you've had over the past week, that might have easily been taken for granted, that you might instead see as a blessing?

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Awe through Creativity & The Arts

*"Beauty will save the world."
– Fyodor Dostoevsky*

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Awe through Social Connection



*"The most beautiful thing we can experience is the mysterious. It is the source of all true art and science. He to whom this emotion is a stranger, who can no longer and stand rapt in awe, is as good as dead: his eyes are closed."
– Albert Einstein*

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Awe in the Present Moment

*"Dwell on the beauty of life. Watch the stars, and see yourself running with them."
– Marcus Aurelius*



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Reflection

What is one thing in your immediate field of vision, wherever you find yourself, that is actually wondrous?

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*"The moment one gives close attention to anything, even a blade of grass, it becomes a mysterious, awesome, indescribably magnificent world in itself."
– Henry Miller*

Awe through Habit

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Pathways to Awe

- Nature
- Vastness
- Mind-Bending
- Courage & Inspiration
- Timelessness
- Gratefulness
- Mindful Awareness
- Habit-building
- Social Connection
- The Arts

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An Ancient Solution to a Modern Problem

- People have never been more:
- Stressed
 - Socially isolated
 - Short on time
 - Depressed
 - Materialistic
 - Polarized
- Awe helps us to:
- Relieve stress
 - Connect with others
 - Feel "time rich"
 - Improves mood
 - Connect with deeper values
 - Become kinder towards others

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A 4th Happy Life?

- However, 10-15% of people resonate more with something else



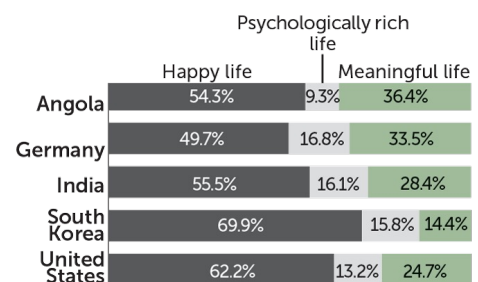
- Psychological Richness:
 - A life marked by "interesting experiences in which novelty and/or complexity are accompanied by profound changes in perspective." (Oishi, 2020)

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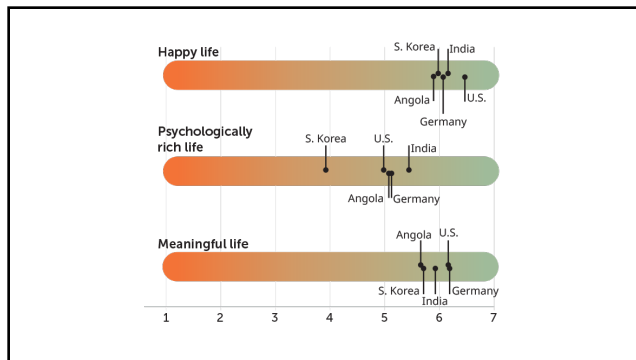
Psychological Richness (Oishi, 2020)

- An alternative to the hedonic vs. eudaimonic model
 - Psychometrically distinct from these as well
- 9-country cross-cultural study found that 17% (and even higher in some countries) preferred the psychological rich life over the hedonic or eudaimonic life
- Characterized by variety, novelty, and interest

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Psychological Richness

- Some link to trait characteristic of Curiosity
- Linked to individuals who experience both positive and negative emotions more intensely
- Linked with individuals high in Openness on Big-5
- Linked to lower levels of regret in surveys

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Reflection

What are some experiences or activity that have made you feel alive, pushed your comfort zones, or sparked your passion?

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Strategies to Enhance Psychological Richness

- Learning new skills
- Seek activities that yield flow states
- Undo a regret
- Stretch beyond your comfort zone
- Become a lifelong learner
- Foster curiosity
- Write your obituary
- Travel if able to; if not, seek small adventures
- Lean into things that scare or intimidate you

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Get in Touch!

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Books: Happily Even After, Awestruck, Real Happiness, The Happiness Toolbox

Newsletter: Three Good Things Thursday

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