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## Psychological Correlates of Death Anxiety Among Older Adults: A Narrative Review

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**Abstract :** *Death anxiety—a constellation of affective, cognitive, and behavioral reactions to death-related thoughts—has profound implications for late-life well-being. In older adults, it intersects with developmental tasks, physical multimorbidity, bereavement, and questions of meaning and legacy. This review synthesizes theoretical perspectives (e.g., Terror Management Theory; meaning-management), measurement approaches (e.g., Templer Death Anxiety Scale; Collett-Lester Fear of Death Scale), and the empirical landscape of correlates spanning personality and attachment, psychopathology, cognitive functioning, social connectedness, religiosity/spirituality, health status, and cultural context. We discuss mechanisms (e.g., mortality salience, self-esteem, meaning in life, intolerance of uncertainty), identify subgroups at elevated risk (e.g., institutionalized, bereaved, cognitively impaired), and summarize intervention implications (e.g., CBT for death anxiety, meaning-centered therapy, dignity therapy, life review, mindfulness, spiritual care, communication in palliative settings). The review highlights methodological issues (measurement equivalence, cohort effects, sampling and publication bias) and outlines research gaps (longitudinal mediational designs, intersectionality, culturally sensitive measures, digital interventions). We conclude that death anxiety in later life is multiply determined, context-dependent, and modifiable—calling for integrated biopsychosocial-spiritual care and precise, developmentally attuned research.*

**Key words—** Death anxiety, older adults, aging, terror management, personality, depression, CBT.

**1. Introduction-** As human beings approach the end of life, awareness of mortality becomes more salient, intertwined with developmental milestones (life review, generativity), health events (chronic illness, functional decline), and social losses (bereavement, retirement). “Death anxiety” is generally defined as negative emotional, cognitive, and physiological responses to death-related thoughts—including fear of the dying process, worries about nonexistence, concerns about the fate of loved ones, and existential angst about meaning and legacy (Feifel, 1959; Templer, 1970; Neimeyer, 1994; Abdel-Khalek, 2005). While some degree of death awareness can promote prudent health behavior and value clarification, elevated death anxiety is associated with worse mental health, diminished quality of life, avoidance, and increased healthcare utilization at the end of life (Kastenbaum & Costa, 1977; Iverach et al., 2014; Menzies et al., 2018). Older adults are not uniformly more death anxious than younger adults; indeed, multiple studies observe curvilinear or cohort-dependent patterns where middle-aged adults sometimes report higher death anxiety than older adults, potentially because older adults have accrued coping capacities, more acceptance, or greater meaning integration (Fortner & Neimeyer, 1999; Thorson & Powell, 1992; Cicirelli, 2002). Nonetheless, death anxiety remains clinically and ethically relevant in gerontology, geriatrics, psycho-oncology, and palliative care. This review organizes the psychological correlates of death anxiety in older adults into conceptual domains, integrating theory and evidence, and concludes with clinical and research directions.

**2. Theoretical Frameworks- 2.1. Terror Management Theory (TMT) and Mortality Salience:** TMT posits that awareness of mortality engenders existential terror, buffered by cultural worldviews, self-esteem, and close relationships (Greenberg, Pyszczynski, & Solomon, 1986; 1997; Pyszczynski et al., 2004). Mortality salience experiments show that death reminders intensify worldview defense, in-group favoritism, and self-esteem striving. In older adulthood, TMT-inspired research suggests that secure attachment, internalized meaning systems, and self-esteem function as buffers that may reduce death anxiety (Florian & Mikulincer, 1998; Maxfield et al., 2007; Routledge & Juhl, 2010).

**2.2. Meaning Management and Existential Approaches:** Wong’s meaning-management theory emphasizes that meaning in life (MIL), purpose, and significant goals reduce death anxiety by integrating mortality into a coherent life narrative and promoting acceptance (Wong, 2008; Wong, Reker, & Gesser, 1994). “Approach acceptance” (embracing death as part of life) and “neutral



acceptance" (death as a natural process) correlate with lower death anxiety, whereas escape acceptance (welcoming death to end suffering) often aligns with distress (Wong et al., 1994; Tomer & Eliason, 1996).

**2.3. Lifespan Development and Socioemotional Selectivity:** Socioemotional Selectivity Theory (SST) proposes that as future time perspective narrows, individuals prioritize emotionally meaningful goals and relationships, potentially fostering death acceptance and emotional regulation (Carstensen, 1992; Carstensen, Isaacowitz, & Charles, 1999). Across later life, successful emotion regulation, generativity, and life review can integrate mortality in ways that attenuate death anxiety (Butler, 1963; Cicirelli, 2002; Neimeyer, 2000).

### 3. Measurement of Death Anxiety in Older Adults-

The choice of instrument shapes observed correlates and prevalence.

- Templer Death Anxiety Scale (DAS) (Templer, 1970) and its revisions remain widely used. Psychometric critiques note potential one-dimensionality and cultural sensitivity concerns (Neimeyer, 1994; Abdel-Khalek, 2005).

- Collett–Lester Fear of Death Scale differentiates fear of one's own death vs dying, and others' death vs dying (Collett & Lester, 1969; Lester, 1990).

- Death Attitude Profile–Revised (DAP–R) assesses acceptance styles and fear of death (Wong et al., 1994).

- Thorson–Powell Death Anxiety Scale (Thorson & Powell, 1992) offers a broader set of items relevant to older adults.

- Multidimensional Fear of Death Scale and Death Anxiety Scale–Revised offer refinements (Mooney & O'Gorman, 2001; Abdel-Khalek, 2005).

- For older cohorts, measurement equivalence, literacy, cognitive status, and translation/cultural adaptation require attention (Fortner & Neimeyer, 1999; Krause, 2006). Multi-method approaches (self-report + clinician ratings + behavioral avoidance) strengthen validity.

**4. Psychological Correlates- 4.1. Demographic Variables: Age.** Contrary to stereotypes, death anxiety is not strictly higher in later life; studies often find declines from midlife to late life or non-linear patterns. Middlers may experience the greatest conflict between mortality awareness and unrealized goals/responsibilities (Fortner & Neimeyer, 1999; Thorson & Powell, 1992).

**Gender.** Many studies show women report higher death anxiety than men-potentially reflecting greater emotional expressiveness or differential socialization- though effect sizes vary and cultural moderators are likely (Neimeyer, 1994; Abdel-Khalek, 2005; Tomer & Eliason, 1996). Education and SES. Higher education often associates with lower death anxiety, possibly via cognitive resources, health literacy, and greater perceived control (Neimeyer, 1994; Krause, 2006). Findings vary by cultural context and access to care.

**Living Arrangement.** Institutionalized older adults can show elevated death anxiety due to loss of autonomy, increased exposure to death, and reduced privacy; however, high-quality social environments mitigate this (Kastenbaum & Costa, 1977; Fortner & Neimeyer, 1999).

**4.2. Personality Traits and Attachment:** Neuroticism consistently correlates positively with death anxiety, reflecting proneness to worry, intolerance of uncertainty, and negative affectivity (Costa & McCrae, 1992; Neimeyer, 1994; Iverach et al., 2014). Extraversion and conscientiousness tend to correlate negatively (protective), possibly through social engagement and self-regulation. Openness shows mixed associations, with some evidence that curiosity about existential topics relates to acceptance (Fortner & Neimeyer, 1999). Attachment orientations matter: anxious attachment predicts higher death anxiety; avoidant attachment can reduce explicit death concerns but increases defensive processes under mortality salience; secure attachment generally buffers death anxiety (Florian & Mikulincer, 1998; Mikulincer, Florian, & Hirschberger, 2003). For older adults, loss histories and caregiving roles can amplify these dynamics.

**4.3. Psychopathology and Affective Symptoms:** Depression and generalized anxiety are robustly associated with higher death anxiety in late life (Fortner & Neimeyer, 1999; Iverach et al., 2014). Mechanisms include rumination, hopelessness, and heightened threat appraisal. Health anxiety and panic disorder features can further amplify death-related cognitions (Menziés et al., 2018). Post-



bereavement complicated grief/prolonged grief disorder also correlates with elevated death anxiety, either via fears of one's own mortality or distress about others' deaths (Neimeyer, 2000).

**4.4. Cognitive Functioning and Metacognition:** Cognitive decline yields complex effects. In mild cognitive impairment, preserved insight may increase distress; in moderate–severe dementia, reduced explicit awareness may lower self-reported death anxiety but not necessarily implicit physiological reactivity (Feifel, 1959; Kwak et al., 2005). Intolerance of uncertainty, catastrophic misinterpretation, and metacognitive beliefs (e.g., “thinking about death is dangerous”) are key cognitive correlates (Menzies et al., 2018). Future time perspective and anticipated regret can shape death distress (Carstensen et al., 1999).

**4.5. Meaning in Life, Purpose, and Values:** Greater meaning in life (MIL)- encompassing purpose, significance, and coherence- associates with lower death anxiety across older samples (Steger et al., 2006; Tomer & Eliason, 1996; Routledge & Juhl, 2010). Generativity, life review, and value-congruent action are protective, while meaninglessness and value-behavior misalignment predict higher death anxiety.

**4.6. Religiosity and Spirituality:** Religiosity and spirituality show nonlinear relationships with death anxiety. Some studies find that intrinsic religiosity (internalized belief) and spiritual well-being correlate with lower death anxiety, while extrinsic/defensive religiosity relates to higher levels (Wink & Scott, 2005; Koenig, 2012). The “religiosity U-curve” hypothesis suggests both strong belief and strong disbelief can lower death anxiety, whereas ambivalence is associated with higher anxiety (Dawkins & Coper, interpreted in empirical work by Jong et al., 2012; Abdel-Khalek, 2002). Specific theological frames (afterlife beliefs, benevolent deity, forgiveness) and quality of spiritual support matter (McClain-Jacobson et al., 2004).

**4.7. Social Connectedness, Loneliness, and Support:** Loneliness and social isolation predict higher death anxiety, potentially via diminished buffering from attachment figures and reduced opportunities for meaning co-construction (Cornwell & Waite, 2009; Hawkey & Cacioppo, 2010). Perceived social support correlates with lower death anxiety and greater acceptance (Fortner & Neimeyer, 1999). Bereavement, particularly multiple losses in rapid succession, can elevate death distress through mortality salience and shattered assumptions (Neimeyer, 2000).

**4.8. Health Status, Pain, and Functional Impairment:** Chronic illness, multimorbidity, pain, and functional dependence are associated with higher death anxiety, particularly fear of the dying process (symptom burden, loss of dignity) rather than death per se (Chochinov et al., 2002; Krause, 2006). Conversely, palliative care and good symptom management reduce fear of dying and improve death acceptance (Morrison et al., 2008; Kavalieratos et al., 2016).

**4.9. Coping Styles and Emotion Regulation:** Avoidant coping and experiential avoidance are positively associated with death anxiety, while acceptance-based and approach-oriented coping link to lower levels (Tomer & Eliason, 1996; Menzies et al., 2018). Mindfulness and self-compassion relate inversely to death anxiety through improved emotion regulation and present-focused awareness (Neff, 2003; Epel et al., 2009; Zhang et al., 2019).

**4.10. Cultural Context and Worldviews:** Cultural worldviews (individualist vs collectivist, filial piety norms, views of autonomy/dignity) shape the content and intensity of death anxiety (Kastenbaum & Costa, 1977; Neimeyer, 1994). Cross-cultural studies often find differences in fear of the dying process and concerns about burdening the family in collectivist contexts, while individualist samples report more personal autonomy concerns. Acculturation, migration histories, and minority stress further modulate death distress.

**5. Special Populations- Institutionalized older adults.** Elevated death anxiety is observed where autonomy is low and exposure to death is high; person-centered care and social connection mitigate this (Kastenbaum & Costa, 1977; Fortner & Neimeyer, 1999).

**Cognitively impaired older adults.** Death anxiety assessment requires adaptation; caregiver and clinician reports can complement self-reports. Distress may be expressed somatically or behaviorally (Kwak et al., 2005).



**Bereaved older adults.** Spousal/partner loss can lead to increased death anxiety; meaning reconstruction and grief-focused interventions are helpful (Neimeyer, 2000).

Medically seriously ill and palliative care populations. Symptom control, communication quality, and spiritual support strongly influence fear of dying and death acceptance (Chochinov et al., 2002; Kavalieratos et al., 2016).

**6. Mechanisms and Mediators- Mortality Salience** → Anxiety is moderated by self-esteem, secure attachment, and worldview coherence (Greenberg et al., 1997; Mikulincer & Florian, 1998). Meaning in life frequently mediates associations between religiosity/spirituality and death anxiety (Steger et al., 2006; Routledge & Juhl, 2010). Intolerance of uncertainty and catastrophic misinterpretation mediate links between neuroticism/anxiety sensitivity and death anxiety (Menzies et al., 2018). Social support buffers stress physiology and existential distress (Hawley & Cacioppo, 2010).

**7. Methodological Considerations-** Measurement invariance across age groups and cultures remains underexamined; multidimensional scales (fear of own death vs dying; others' death vs dying) are preferred for nuanced profiling (Collett & Lester, 1969; Wong et al., 1994).

Sampling often skews toward convenience samples (e.g., community-dwelling, higher education). Underrepresentation of low-SES, rural, minority, and institutionalized elders limits generalizability (Krause, 2006).

- Cross-sectional designs restrict causal inference. More longitudinal and experimental studies (e.g., mortality salience paradigms adapted to older adults) are needed (Maxfield et al., 2007).

- Publication bias toward significant correlations may exaggerate effect sizes; pre-registration and data sharing are recommended.

- Cognitive status and sensory impairments require accessible, adaptive instruments.

## **8. Clinical Implications and Interventions-**

**8.1. Assessment:** A good assessment covers: (a) domains of death concerns (own dying vs death; others' dying vs death), (b) cognitive styles (catastrophizing, IU), (c) affect (depression/anxiety), (d) meaning/purpose, (e) religiosity/spirituality, (f) attachment/relationship security, (g) health status, pain, function, and (h) social connection. Use age- and culture-sensitive tools (DAS, DAP-R, Collett-Lester) and clinical interviews.

### **8.2. Psychotherapy:**

- CBT for death anxiety: targets catastrophic misinterpretations, IU, safety behaviors, and experiential avoidance. Graduated imaginal/in vivo exposure to death cues, plus cognitive restructuring, reduces death anxiety (Menzies et al., 2018; Iverach et al., 2014).

- Meaning-centered psychotherapy (originally developed in oncology) strengthens purpose, legacy, and values-consistent action-reducing demoralization and death distress (Breitbart et al., 2010).

- Dignity therapy supports narrative, legacy documents, and affirmation of personhood, decreasing distress and enhancing end-of-life outcomes (Chochinov et al., 2005; 2011).

- Life review and reminiscence therapy foster integrative processing of life events; meta-analytic evidence supports benefits for depressive symptoms and well-being, with indirect reduction in death anxiety via meaning (Butler, 1963; Pinquart & Forstmeier, 2012).

- Mindfulness- and acceptance-based approaches (e.g., MBIs, ACT-informed work) reduce avoidance and improve emotion regulation (Epel et al., 2009; Zhang et al., 2019).

- Grief-focused interventions aid bereaved elders in reconstructing meaning and bonds (Neimeyer, 2000).

**8.3. Spiritual Care and Religiously Integrated Therapy:** For religious/spiritual elders, chaplaincy and spiritually integrated CBT address guilt, afterlife concerns, and theodicy, often improving spiritual well-being and reducing death distress (Koenig, 2012; McClain-Jacobson et al., 2004).

**8.4. Palliative Care, Communication, and Symptom Control:** Early palliative care improves quality of life and diminishes fear of dying via symptom relief and goals-of-care clarity (Morrison et al., 2008; Kavalieratos et al., 2016). Open, empathic communication about prognosis, preferences, and legacy typically reduces anxiety and enhances control.



**8.5. Social and Environmental Interventions:** Reducing loneliness (befriending programs, group activities), enhancing autonomy in institutional settings, and supporting caregivers can alleviate death anxiety. Community and intergenerational programs strengthen meaning and belonging.

#### **9. Gaps and Future Directions-**

**1. Longitudinal mediation:** Establish temporal pathways linking personality, attachment, meaning, and death anxiety.

**2. Intersectionality:** Explore how gender × culture × SES × health status jointly shape death anxiety.

**3. Cultural adaptation:** Validate multidimensional and context-sensitive scales across languages and traditions; consider unique cultural fears (e.g., burdening family).

**4. Neurocognitive diversity:** Develop tools for MCI/dementia with behavioral and physiological indicators.

**5. Digital/Hybrid care:** Test remote CBT, meaning-centered, and life review interventions; leverage legacy-creation apps.

**6. Implementation science:** Embed assessment and brief interventions into primary care, oncology, and long-term care.

**7. Mechanistic precision:** Integrate biomarkers of stress/aging (inflammation, HPA axis), future time perspective, and self-transcendent experiences.

**10. Conclusion-** Death anxiety in older adults is not an inevitable, monolithic experience. It varies by personality and attachment security, mental health, cognitive styles, social connectedness, health status, cultural worldviews, and-critically- meaning in life. Evidence-based psychotherapies (CBT, meaning-centered therapy, dignity therapy, life review), spiritual care, high-quality palliative approaches, and social interventions demonstrate that death anxiety is modifiable. Future research should advance culturally attuned, longitudinal, and mechanistic models to inform targeted prevention and scalable interventions. Clinically, integrating existential assessment and support within routine geriatric and palliative care can promote acceptance, dignity, and peace near the end of life.

#### **REFERENCES**

1. Abdel-Khalek, A. M. (2002). Why do we fear death? The construction and validation of the Reasons for Death Fear Scale. *Death Studies*, 26(8), 669–680.
2. Abdel-Khalek, A. M. (2005). Death anxiety in clinical and non-clinical groups. *Death Studies*, 29(3), 251–259.
3. Breitbart, W., Rosenfeld, B., Pessin, H., et al. (2010). Meaning-centered group psychotherapy: An RCT in patients with advanced cancer. *Journal of Clinical Oncology*, 28(28), 4652–4659.
4. Butler, R. N. (1963). The life review: An interpretation of reminiscence in the aged. *Psychiatry*, 26, 65–76.
5. Carstensen, L. L. (1992). Social and emotional patterns in adulthood: Support for socioemotional selectivity theory. *Psychology and Aging*, 7, 331–338.
6. Carstensen, L. L., Isaacowitz, D., & Charles, S. (1999). Taking time seriously: A theory of socioemotional selectivity. *American Psychologist*, 54, 165–181.
7. Chochinov, H. M., Hack, T., Hassard, T., et al. (2002). Dignity in the terminally ill: A cross-sectional study. *The Lancet*, 360(9350), 2026–2030.
8. Chochinov, H. M., et al. (2005). Dignity therapy: A novel psychotherapeutic intervention for patients near the end of life. *Journal of Clinical Oncology*, 23(24), 5520–5525.
9. Chochinov, H. M., et al. (2011). Dignity therapy: RCT in palliative care. *The Lancet Oncology*, 12(8), 753–762.
10. Cicirelli, V. G. (2002). *Fear of death in older adults: Predictions from terror management theory and attachment theory*. New York: Springer.
11. Collett, L. J., & Lester, D. (1969). The Fear of Death and Dying Scale. *Journal of Psychology*, 72(2), 179–181.
12. Cornwell, E. Y., & Waite, L. J. (2009). Social disconnectedness, perceived isolation, and health among older adults. *Journal of Health and Social Behavior*, 50(1), 31–48.



13. Costa, P. T., & McCrae, R. R. (1992). Revised NEO Personality Inventory (NEO-PI-R) manual. Odessa, FL: Psychological Assessment Resources.
14. Epel, E., et al. (2009). Can meditation slow rate of cellular aging? Cognitive stress pathways and aging. *Annals of the New York Academy of Sciences*, 1172, 100–113.
15. Feifel, H. (1959). *The Meaning of Death*. New York: McGraw-Hill.
16. Florian, V., & Mikulincer, M. (1998). Symbolic immortality and the management of the terror of death: The moderating role of attachment style. *Journal of Personality and Social Psychology*, 74(3), 725–734.
17. Fortner, B. V., & Neimeyer, R. A. (1999). Death anxiety in older adults: A quantitative review. In *Death Anxiety Handbook: Research, Instrumentation, and Application* (pp. 95–118). Washington, DC: Taylor & Francis.
18. Greenberg, J., Pyszczynski, T., & Solomon, S. (1986). The causes and consequences of a need for self-esteem: A terror management theory. In *Public self and private self* (pp. 189–212). Springer.
19. Greenberg, J., Solomon, S., & Pyszczynski, T. (1997). Terror management theory of self-esteem and cultural worldviews. In *Advances in Experimental Social Psychology*, 29, 61–139.
20. Hawkey, L. C., & Cacioppo, J. T. (2010). Loneliness matters. *Annals of Behavioral Medicine*, 40(2), 218–227.
21. Iverach, L., Menzies, R. G., & Menzies, R. E. (2014). Death anxiety and its role in psychopathology. *Clinical Psychology Review*, 34(7), 580–593.
22. Kastenbaum, R., & Costa, P. T. (1977). Psychological perspectives on death in late life. *Annual Review of Gerontology and Geriatrics*, 2, 79–110.
23. Kavalieratos, D., et al. (2016). Association between palliative care and patient and caregiver outcomes: A systematic review and meta-analysis. *JAMA*, 316(20), 2104–2114.
24. Koenig, H. G. (2012). Religion, spirituality, and health. *ISRN Psychiatry*, 2012, 278730.
25. Krause, N. (2006). Religious doubt and psychological well-being: A longitudinal investigation. *Journal for the Scientific Study of Religion*, 45(2), 159–176.
26. Kwak, J., et al. (2005). Advance care planning and end-of-life decision-making in dementia. *Gerontologist*, 45(5), 634–640.
27. Lester, D. (1990). The Collett–Lester Fear of Death Scale: The original version and a revision. *Death Studies*, 14(5), 451–468.
28. Maxfield, M., et al. (2007). Age differences in mortality salience effects. *Psychology and Aging*, 22(2), 340–354.
29. McClain-Jacobson, C., et al. (2004). Spiritual well-being, depression, and meaning at the end of life. *Journal of Palliative Medicine*, 7(6), 837–845.
30. Mikulincer, M., Florian, V., & Hirschberger, G. (2003). The existential function of close relationships: Introducing death into the attachment system. *Personality and Social Psychology Bulletin*, 29(5), 585–597.
31. Morrison, R. S., et al. (2008). Cost savings and improved care with palliative care. *Archives of Internal Medicine*, 168(16), 1783–1790.
32. Neff, K. D. (2003). Self-compassion: An alternative conceptualization. *Self and Identity*, 2(2), 85–101.
33. Neimeyer, R. A. (1994). Death anxiety research: The state of the art. *Omega—Journal of Death and Dying*, 29(3), 173–206.
34. Neimeyer, R. A. (2000). Searching for the meaning of meaning: Grief therapy and the process of reconstruction. *Death Studies*, 24(6), 541–558.
35. Pinquart, M., & Forstmeier, S. (2012). Effects of reminiscence interventions: A meta-analysis. *Aging & Mental Health*, 16(5), 541–558.
36. Pyszczynski, T., Greenberg, J., & Solomon, S. (2004). In the Wake of 9/11: The Psychology of Terror. Washington, DC: APA.



37. Routledge, C., & Juhl, J. (2010). When death thoughts lead to death fears. *Journal of Research in Personality*, 44, 651–654.
38. Steger, M. F., Frazier, P., Oishi, S., & Kaler, M. (2006). The Meaning in Life Questionnaire. *Journal of Counseling Psychology*, 53(1), 80–93.
39. Thorson, J. A., & Powell, F. C. (1992). A revised death anxiety scale. *Death Studies*, 16(6), 507–521.
40. Tomer, A., & Eliason, G. (1996). Toward a comprehensive model of death anxiety. *Death Studies*, 20(4), 343–365.
41. Wink, P., & Scott, J. (2005). Does religiousness buffer against the fear of death in old age? *Journal of Gerontology: Psychological Sciences*, 60B(4), P207–P214.
42. Wong, P. T. P. (2008). Meaning-management theory and death acceptance. In A. Tomer, G. T. Eliason, & P. T. P. Wong (Eds.), *Existential and Spiritual Issues in Death Attitudes*. New York: Lawrence Erlbaum.
43. Wong, P. T. P., Reker, G., & Gesser, G. (1994). Death Attitude Profile—Revised (DAP–R). In R. A. Neimeyer (Ed.), *Death Anxiety Handbook* (pp. 121–148). Washington, DC: Taylor & Francis.
44. Zhang, J. W., Piff, P. K., Iyer, R., Koleva, S., & Keltner, D. (2019). An occasion for unselfing: Awe and prosociality. *Journal of Personality and Social Psychology*, 113(2), 185–2

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