

Gaining Perspective on Death: Training Program and Language Use Outcomes Assessment

Marilyn Schlitz

California Pacific Medical Center Research
Institute, San Francisco, California and Worldview
Enterprises, LLC, Petaluma, California

Jonathan Schooler

University of California, Santa Barbara

Alan Pierce

Institute of Noetic Sciences, Petaluma, California

Angela Murphy

Petaluma Pictures, Petaluma, California

Arnaud Delorme

University of California, San Diego

Understanding and managing the fear of death is a central issue in clinical care. Research in terror management theory suggests that death reminders can lead to anxiety, depression, and maladaptive social behaviors. Additional research has suggested that discourse about death can be beneficial in contexts that are safe and supportive. A telecourse and web-based learning program on diverse worldviews of death and the afterlife was developed and used to explore these issues. The impact of this training was assessed using pre- and posttest journaling and questionnaire data. The content of these journals was analyzed within and across subjects for emotionally meaningful expressions related to the writing prompts. Significant pre- and postdifferences were identified using the Linguistic Inquiry and Word Count text analysis software. After the intervention, participants were less centered on their body as use of the body category decreased by 32% ($p < .01$). This was consistent with an increase of 16% in the use of abstract pronouns ($p < .05$). Participants also were more confident in their expression with a 58% increase in the certain category ($p < .05$). Participants made fewer references to death with a decrease of 34% in the death category ($p < .05$). Results of this work support the feasibility of an online training program that has measurable beneficial affects for clinical care, both for professionals and patients. We discuss such educational clinical applications and the implications for future research.

Keywords: mortality salience, terror management theory, worldview, clinical training, death

There are many conjectures about what happens when we die. These range from the materialist perspective that consciousness ends at death, to various alternative religious/spiritual views of immortality. Clearly no one can claim

ultimate answers, although complementary and competing views exist that address this core existential question of human existence. A recently conducted Pew survey ([Pew Forum on Religion and Public Life, 2008](#)) revealed that

Marilyn Schlitz, California Pacific Medical Center Research Institute, San Francisco, California and Worldview Enterprises, LLC, Petaluma, California; Jonathan Schooler, Psychology Department, University of California, Santa Barbara; Alan Pierce, Institute of Noetic Sciences, Petaluma, California; Angela Murphy, Petaluma Pictures, Petaluma, California; Arnaud Delorme, Institute of Neural Computation, Swartz Center for Computational Neuroscience, University of California, San Diego.

This work was sponsored by the Institute of Noetic Sciences and the Charles Brush Memorial Trust. We acknowledge a financial interest or affiliation with the documentary film and companion book discussed in this paper. We acknowledge Jenny Matthews, Cassandra Vieten, Katia Petersen, Charles Brush, and Michael Singer for their various contributions to this project.

Correspondence concerning this article should be addressed to Marilyn Schlitz, Worldview Enterprises, 222 Windsor Drive, Petaluma, CA 94952. E-mail: mjmschlitz@gmail.com

74% of Americans believe that some aspects of an individual's consciousness persists after the death of the body (see also Greeley & Hout, 1999; Klenow & Bolin, 1990). The assumption of life-after-death is a core component of many religious belief systems (Ma' Sumian, 1995; Obayashi, 1992), which has contributed to the speculation that religion may have arisen in part as a way to deal with death (e.g., Becker, 1973; Malinowski, 1954).

Developed from Becker's (1973) book on *Denial of Death*, terror management theory (TMT) provides a framework for understanding the individual and social behavioral responses to death awareness. TMT posits that humans have developed psychological responses to manage death awareness and the anxiety that may come with it (Vail et al., 2012). This behavioral response is two-part, consisting of a (1) firm belief in cultural worldviews and (2) maintaining self-esteem levels by adhering to the values of this cultural worldview (Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon, 1989).

According to TMT, these cultural belief systems provide opportunities for death transcendence, either literally (i.e., afterlife) and/or symbolic (writing books, etc.). As such, they offer a psychological buffer against the anxiety brought on by an awareness of one's own mortality (Dechesne et al., 2003).

Further research on TMT has shown us how this suppression of our mortality can lead us to be highly defensive when confronted with what researchers has called *mortality salience* (Greenberg et al., 1990; Rosenblatt et al., 1989). According to this theory, each of us is holding this suppressed idea largely at the unconscious level, and in that process it has led us to conflict and intolerance. As people become confronted with their own mortality, and their mortality salience increases, they can become very aggressive. They can become violent and very oriented toward identification with their "in group"—in opposition to other groups that may hold different opinions and different worldviews from their own (Becker, 1973).

Death awareness also can be an avenue through which individuals embrace their mortality, giving rise to prosocial behavior and enduring personal growth. Vail et al. (2012) commented on the positive trajectory of TMT

The awareness of mortality can motivate people to enhance their physical health and prioritize growth-oriented goals; live up to positive standards and beliefs; build supportive relationships and encourage the development of peaceful, charitable communities; and foster open-minded and growth-oriented behaviors. (p. 303)

This positive trajectory has particularly important implications for a clinical setting. For example, in 2008 the *Journal of the American Medical Association* published a study that focused on the psychological outcomes of end-of-life (EOL) discussions between terminally patients and their caregivers (Wright et al., 2008). The authors found that measures of quality of life (QOL) near death for both patients and caregivers were positively correlated with EOL discussions. Furthermore, bereaved caregivers of patients who reported no EOL discussions (these patients showed poor QOL scores at the end of life) were found to be at greater risk for major depressive disorder, and experienced worse QOL and more regret. In contrast, improved patient QOL near death was associated with improved QOL for bereaved caregivers in areas such as self-reported health, physical functioning, and mental health.

These findings support the development of clinical applications to enhance psychological and behavioral outcomes around death. Of course, an important follow-up to this reframing of mortality salience is: What are the conditions that cultivate a more positive trajectory? A possible answer to this inquiry, and the focus of the educational and evaluation research reported in this paper, involves understanding how exposure to diverse worldviews about death and an afterlife may lead to positive changes in response to anxiety surrounding the fear that is associated with death for many people.

Worldviews combine beliefs, assumptions, attitudes, values, and ideas to form a comprehensive model of reality. Becoming knowledgeable about worldviews may allow people to consciously acquire the skills and capabilities needed to understand the nature of their own beliefs and values. It also may aid them in becoming more aware and accepting of the worldviews of others. Learning to legitimize other people's worldviews that are at odds with one's own sense making can be appreciated without any need or pressure to adopt the worldviews of others as one's own (Schlitz et al., 2011). As such, learning about worldviews may

lead to less negative emotions and more prosocial views around death awareness.

Regardless of any specific truth value, exposure to diverse worldviews regarding the possibility of life-after-death has been shown to reduce individuals' defensiveness about death. For example, although individuals routinely evidence defensive reactions when they ponder death, this tendency is attenuated when individuals are presented with scientific perspectives entertaining the possibility of life-after-death (Dechesne et al., 2003). Indeed, reductions in defensiveness about death following promotion of the view of literal immortality have been observed even among atheists (Heflick & Goldenberg, 2012).

Understanding one's own and other's worldviews about what, if anything, happens after death has bearing on everyone. It has particular relevance to clinical populations who are suffering. Views regarding the prospect of life-after-death are also likely to be especially important for our aging population. This is true for two interrelated reasons. First, beliefs about life-after-death may contribute to people's reactions to the death of their friends and family. Although never before studied, if beliefs about the possibility of an afterlife can ameliorate defensiveness surrounding one's own mortality, then it seems reasonable to hypothesize that they also might affect such reactions in response to the mortality of one's personal network, such as grief, anxiety, and sadness. Second, views on life-after-death, and in particular the possession of a broad understanding of alternative perspectives on the topic, could help people deal with the individualized mortality concerns of others. This concern gains increasing relevance with the growth in the United States of people who affiliate with major religions other than Christianity or Judaism (e.g., Islam, Hinduism, Buddhism; Sherkat, 1999; Pew Forum, 2008), or who report no religious affiliation (Pew Research Center, 2012).

This point also is particularly salient for health care professionals in clinical settings. It applies especially to those who may encounter death in their work on a daily basis and who wish to provide spiritual care to patients but are faced with an apparent lack of training/confidence in doing so. In a survey study involving oncology nurses and physicians who

cared for patients with advanced cancer, Balboni et al. (2014) reported that more than 70% of nurses and 60% of physicians wanted to provide spiritual care to their patients. Lack of spiritual care training was cited as one of the most significant barriers to such care.

According to Abbas and Dein (2011) health care professionals attending to spiritual distress among hospice patients reported a variety of difficulties including: (1) lack of vocabulary around spiritual issues, (2) personal issues surrounding death and dying, (3) training issues, and (4) fear of being unable to resolve spiritual problems. Some nurses expressed that they themselves had not spent much time reflecting on their own mortality, leaving them feeling vulnerable and unable to relate to the spiritual distress of their patients. For example, one nurse remarked, "I remember once a patient asked me what happens when I die. I said I don't know and I did not know what else to say."

In our study aim, we suggest the development of spiritual perspective(s) as a way to improve training and ultimately the confidence and capacity of health practitioners, hospice workers, and caregivers. This study echoes previous insight by McSherry (2006) concerning the need for nurses to attend to their own spiritual care needs and to become personally spiritually aware (i.e., of their own values, prejudices, or fears) as a key factor in providing care that is tolerant and engaging of diverse belief systems. Clinical psychologists represent another professional population lacking in training to address spiritual issues even though many psychologists have reported that such training should be required and would be beneficial to their clinical outcomes (Vieten et al., 2013).

A team of Australian researchers (Meredith, Murray, Wilson, Mitchell, & Hutch, 2012) who sought to address a perceived need to improve the spiritual dimension of palliative care developed and tested a training program. Pre- and postdata drawn from over 100 nurses, doctors, and other professionals showed significant increases in measures of spiritual care and confidence in this area, and later follow-up indicated that the changes were sustained over time (Meredith et al., 2012). Although the study reported here was not targeted specifically to health care professionals, the intervention may offer a similar training template to enhance the ability of

these professionals as they provide spiritual care for patients facing EOL.

The educational and program evaluation reported in this paper explored the potential interactive benefits of several promising approaches for enabling people to develop and integrate cultural sensitivity and open-minded perspectives on diverse worldviews about life-after-death. In particular, it assessed the impact of a six-part multimodal distance learning program. The training program encouraged participants to explore their own worldview and exposed them to diverse perspectives on what people believe happens when they die. As a further intervention for encouraging the integration of alternative perspectives on death and the afterlife, participants engaged in short writing exercises and participated in regular small group discussions about the material covered in each of the six training sessions.

Patterns of language use in social settings are a vital tool in studying human interactions as they are situated in specific contexts (Killoran, Schlitz, & Lewis, 2002; Levine & Moreland, 1990). However, as Tausczik and Pennebaker (2013) pointed out, the scientific study of groups is complex and there are no standard rules that govern their behavior or discourse. Although most word count and language analysis research has focused on individual language use, the social use of language also can reveal important aspects of human interaction. In this work we encouraged small group discussions to identify the shared experiences, responses, and concerns of people, and how these impact their well-being.

To further aid in the integration of these intervention materials, participants were given regular journaling tasks in which they were instructed to discuss their life experiences in relationship to death. Journaling itself has been found to encourage the derivation of meaning from difficult experiences, which can help to integrate those experiences and lead to improved health outcomes (Pennebaker, 2011; Pennebaker, Chung, Ireland, Gonzales, & Booth, 2007). Systematic analysis of the journaling reports from participants receiving the training intervention was a crucial dependent measure for assessing the impact of the intervention.

Hypotheses

It was hypothesized that the afterlife exposure intervention would affect participants in a host of ways indicative of enhanced coping with both the prospect of death, a reduction in negative emotions, and an openness to a variety of diverse worldviews.

Method

Intervention Development and Research

A content analysis was conducted of an archive of 60 recorded interviews (recorded by M. Schlitz) with cultural experts and scientists, focusing on diverse worldviews concerning death and the afterlife. Thematic trends were identified across individuals representing different cultural, spiritual, and religious worldviews. This thematic analysis was integrated with an educational curriculum (Petersen, Schlitz, & Vieten, 2013) that has been shown in preliminary pilot data to facilitate exploration of the pivotal role that worldview, perspective, or point of view plays in perception, emotional expression, and behavior. This focus on worldview as a skill-set was adapted to the topic of death. A feature-length documentary film was created, entitled *Death Makes Life Possible* and an e-learning program was developed from the research and video archive. The goal of the program was to design a prototype of the multimedia lessons, explore the feasibility of distributing the content using social media applications, and evaluate the training on word use by analyzing pre- and posttraining journal entries to examine potential social and psychological benefits. This telecourse ran in early 2013 and data was collected to test program feasibility and to develop methods for evaluating the efficacy of the intervention.

Intervention

The distant learning course occurred once every week for 6 weeks. The course was made available online through Maestro Conferencing, a telephone and web-based delivery platform that allows for automated recording of lectures

and group discussions.¹ Participants who could not or did not wish to participate live via Maestro Conferencing accessed the course material via Instant Teleseminar 2.0. These participants were not able to participate in the break-out sessions, nor did they provide journaling or survey data. The training intervention involved a series of prerecorded video programs representing diverse worldviews about death and the afterlife, and they were collected as part of the production of a feature length documentary and companion book (Schlitz, n.d.; Schlitz et al., 2014). Over the course of the lessons, the multimedia curriculum (1) introduced the concept of worldview; (2) helped participants understand how their perspective or point of view influences how they perceive and therefore, how they act and react; and (3) provided video interviews with cultural leaders and scientists representing diverse worldviews on death and the possibility of an afterlife, which were meant to increase cultural sensitivity, enhance cognitive flexibility, and invite participants to examine their own assumptions.

The content of the worldview selections included perspectives from (a) people who reported near death experiences, out of body experiences, and ostensible communication with the deceased; (b) scientists who interpreted near death experiences as evidence of an afterlife and those who were skeptical of this research; and (c) cultural experts who included the following an atheist, Christian, Hindu, Buddhist, Muslim, Native American, Mesoamerican, and an African Diaspora priestess. Each of these individuals expressed their specific worldview and perspectives related to death and life-after-death.

The lessons were organized along the following themes: Lesson 1: death and the cycle of life; Lesson 2: noetic experiences related to beliefs in the afterlife; Lesson 3: cultural and religious worldviews of the afterlife; Lesson 4: worldviews of the afterlife: materialism and science; Lesson 5: worldview, grief, and the afterlife; and Lesson 6: integrating worldviews about death and immortality into life and work.

Each of the six lessons was 1 hr, with an additional 30 min for unstructured dialogue; a specific postlesson breakout was designated for health professionals to explore the relevance of this program for their work. Each lesson included a short centering exercise, a lecture by

M. Schlitz on specific aspects of worldviews around death and the afterlife, short video excerpts from experts representing diverse worldviews, cultures, and belief systems, as well as reflection time and both small and large group discussions. Participants were given a discussion question based on the lesson and asked to share their thoughts and experiences in live small group discussion sessions. These postlesson discussions were not recorded. Groups came back into a central discussion to share insights; these conversations were recorded and transcribed for theme analysis. Participants were also given homework readings related to the theme for each lesson.

Participants

Participants were recruited through the Institute of Noetic Sciences' membership channels (i.e., various social media networks), and included general lifelong learning students. The feasibility training involved a 6-week teleseminar and online training program that considered diverse worldviews about death and the afterlife. The first two classes were offered free of charge. A total of 81 participants paid to enroll in the course, although not all completed course feedback surveys and a total of only 30 responded to both pre- and postjournaling prompts (for logistical reasons both the surveys and journaling exercises were optional). The linguistic analysis and content analysis presented here uses the 30 participants who provided complete pre- and postdata. Course feedback from these 30 participants and others is also included separately in the Discussion to highlight salient comments about the course.

Most participants (93%) self-identified as White/Caucasian and 60 years of age or older (63%). There were no participants below the 40 to 49 age bracket. Occupations fell into three main categories, retired (30%), health care and technical occupations (20%), and other (33%). In the religious category, 17% claimed no religious affiliation, while 10% were nondenominational Christian, 7% new thought (e.g., Religious Science), 7% Buddhist, 7% Unitarian/

¹ One important advantage of web-based intervention is that it enables the ready distribution of this intervention on a large scale.

Universalist, and the rest fell under the other category.

Data Collection

Before and after the training, a short questionnaire was administered. This included demographics, beliefs regarding death and the afterlife, and a brief journaling exercise that focused on two mortality salience prompts: “What do you think will happen to your body when you die?” and “What are the emotions that the thought of your own death arouses in you?” The questionnaires and journals were completed via Survey Monkey.

Word Use Analysis of Journals

The contents of these pre- and postintervention journals were analyzed within and across subjects for emotionally meaningful expressions related to the death prompts. A key dependent measure in this study was the differences in participant word usage with respect to their reactions to the mortality salience prompts as reflected in their journaling. Answers from the 30 participants who completed the pre- and postjournal questions were compiled into two documents, one representing all the prereponses and the other representing all the postresponses. These text groups born out of the mortality salience prompts were subjected to a detailed thematic and word count analysis using the Linguistic Inquiry and Word Count, 2007 software (LIWC; Pennebaker et al., 2007; Tausczik & Pennebaker, 2010). The analysis of various emotional, cognitive, and structural components in the written and spoken speech of participants focused on expressions of identity, anxiety, coping, defensiveness, emotions, and openness to alternative views. The analysis program measures meaningful discourse patterns both within and across study participants. This included the frequency with which participants expressed existential concerns and beliefs about death and the afterlife, both for themselves and others. Journal entries also were assessed on the basis of prespecified themes within the LIWC system, including pronoun use, references to death, fear, emotions, anxiety, insight, and religion.

Results and Discussion

Language Analysis of Journals

All of the journals were coded and labeled. They were then run through the LIWC program, based on the prespecified content codes. This text analysis program uses a default dictionary composed of approximately 4,500 words and word stems, each of which describes a specific word category. A word found in the target text that matches these default word and word stems is attributed scale score for each word category associated with it, to identify emerging patterns within the text (Pennebaker et al., 2007). Responses were combined for both questions and compared pre- and posttraining for the group using 32 LIWC categories that experimenter M. Schlitz manually selected in the LIWC software based on the relevance for our study and prior to data analysis (see the list of all categories at <http://www.liwc.net/descriptiontable1.php>). Categories in which 10 or more responses returned a score of 0 were excluded from subsequent analyses. Table 1 shows the categories examined as well as some example words from each category and the number of overall words in the dictionary for each of these LIWC categories. It also shows the pre- and postscore for each category as well as percentage increase/decrease. Significance was analyzed using three different statistical tests: parametric *t* test, nonparametric Mann–Whitney rank test, and surrogate permutation test. We used three tests to assess the consistency across tests (a difference is more robust when all three tests are significant).

Table 1 represents pre- and postintervention LIWC scores. Columns 2 and 3 indicate pre- and postintervention median scores. Column 4 indicates the percentage of change. The last 3 columns indicate differences using three different statistical tests: *t* test, nonparametric Mann–Whitney rank test, and surrogate permutation test.

After the intervention, participants are less centered on their body as demonstrated by the body category decrease of 32% ($p < .01$; see Table 1). This is consistent with an increase of 16% in the use of abstract pronouns ($p < .05$; see Table 1). These trends could instead indicate defensiveness and lack of acceptance of death, although our content analysis (dis-

Table 1
Language Analysis of Journaling Content

Category	Prescore	Postscore	Change	<i>t</i> test	Rank test	Permutation test
First person singular pronoun	9.5	8.4	-11%			
Impersonal pronouns	5.5	6.3	+16%	*	*	*
Social processes	3.5	4.3	+23%			
Affective processes	6.1	6.8	+12%			
Positive emotion	3.5	4	+12%			
Negative emotion	2.3	1.6	-32%	†		†
Cognitive processes	12	20	+10%		†	†
Insight	4.2	5.2	+24%		†	
Tentative	3.4	3.7	+9%			
Certainty	0.8	1.2	+58%	*	*	*
Inclusive	5.2	5	-2%			
Exclusive	2.8	2.1	-24%			
Perceptual processes	2.3	2.2	-3%			
Biological processes	3.5	2.9	-18%			
Body	1.3	0.9	-32%	**	**	**
Health	1.8	1.8	+4%			
Space	5.6	5.9	+5%			
Time	5.4	5.1	-7%			
Death	2.1	1.4	-34%		†	*

Note. Excluded categories (for which 10 or more responses returned a score of 0) were Family, Friends, Anxiety, Anger, Sadness, Tentative, Inhibition, See, Feel, Achieve, Home, Money, and Religion. For all tests the degree of freedom was 29.

† $p < .1$. * $p < .05$. ** $p < .01$.

cussed later) supports the first interpretation of less body centeredness. Participants also appeared more confident, showing a 58% increase in the certain category ($p < .05$; see Table 1). This also may be a reflection of decreased cognitive flexibility; results from the content analysis suggest a more nuanced interpretation. The potential hermeneutic ambiguity of these significant data trends offer an area of future methodological improvement, which may include developing survey questions that specifically address changes in body awareness and clarify aspects of certainty expression. Some other differences were not as robust but are worth mentioning. Participants tended to focus less on death with a decrease of 34% of the death category ($p < .1$, Mann-Whitney U test; $p < .05$, permutation test; see Table 1). They also may have more insight and focus less on the negative (see trends in Table 1). These results converge to suggest that the intervention was beneficial to those who participated in the research and helped some participants to transcend the idea of death and/or engage it a new and constructive way.

With a sample of 30 participants, this work serves to establish the feasibility of the training and evaluation components. We assessed sample size and a power calculation for validating hypotheses on this study. Based on the effect size for the body category, we would need at least 73 participants to reproduce the effect (assuming a parametric t test) or 135, 146 for the two other categories that were significant (certain; use of abstract pronouns). A full study validating the results obtained in this pilot experiment would thus require a minimum of 150 participants.

Journaling Content Analysis

These linguistic data were further explored in a contextual analysis of the journal responses themselves. The content analysis of journaling responses helped discern the nuances of this intervention and expand on the meaningful linguistic trends. Although the sample is small and the demographics not very diverse, the intervention appeared to have a marked effect on the way these individuals view death and dying, and how they respond to it. Some of the more

profound shifts were seen in response to this prompt: "What are the emotions that the thought of your own death arouses in you?" One participant responded to this question before the course in this way, "Fear of having regrets. Almost panic at the thought of leaving dreams and talents unfulfilled or wasted." Followed by this response to the same question postcourse, "My 'spirit' will be surrounded by an atmosphere of love and peace, and I will feel no real regret at what I am leaving behind." Clearly, an overall emotional shift occurred, as well as a remarkable transformation of perspective at the prospect of leaving this life. An inability or resistance to let go of physicality characterized this participant's precourse response, whereas the intervention seems to have instilled a newfound sense of cosmic unity and readiness for this event.

Another participant experienced a similar transformation. Before the course: "The most prominent emotion is worry that I have not accomplished all that I have set out to do. What if I haven't done enough or have somehow been less than I was supposed to be or experience?" After the course: "I feel excited by the prospects that I have completed my life journey and that I will be moving on to new adventures." These responses help contextualize the linguistic trends that showed a decrease in negative emotions such as anxiety and an increase in certainty, and also lend a deeper clarity to the sense of personal transformation and empowerment brought about from the intervention. Both participants initially speak with uncertainty about themselves and what they have done, or perhaps have not done. Yet, their postcourse responses are devoid of this anxious "what if," fretful doubt replaced with an empowering certitude of self-worth and the value of the life they led. Ultimately, they appear to more clearly perceive the significance of their own bodily existence, or the meaning they themselves cultivated in their own lives.

Other participants experienced slightly different shifts, although no less powerful. For one, the act of dying itself took on new meaning. In the precourse response this person wrote, "I feel some sense of loss of my physical life and my relationships as they exist in my physical life." And following the afterlife exposure intervention: "Death of this physical body will bring some understanding of what this physical

life was all about, so I look forward to that experience and understanding." For this individual, death became characterized not by loss, but as something that would give. From this new perspective, instead of depriving this person of aspects of physical existence, the experience of life's conclusion would give clarity to the qualities and meaning of their life. This change is distinct from the previous example because a stronger sense of mortality acceptance is brought about not by an assurance that one's life has been meaningful, but an understanding that death would show how it has been meaningful.

The goal of the course was not to persuade people about any particular afterlife perspective, but to expose them to diverse perspectives. Indeed, after the last class in response to the survey question, "Have you expanded or reconsidered your view of death and what happens after, over the past six weeks?" Forty percent of the respondents indicated that their views were either not changed at all or very little.

Nonetheless, in addition to meaning perception and acceptance (and perhaps a foundation for those shifts) many participants ultimately expressed an overall ontological transformation in their journaling responses. In the presurvey journaling one respondent wrote,

What I do believe is that it is very possible that we have a continued consciousness. I am open to believing that but just don't know. I do believe that once we have died that the body is just a shell. Whatever consciousness was there is gone from the body.

And after the class:

After taking this course, I am more clear that our consciousness survives death. I think that much of what has been important to us will no longer be important as we leave the lives that we have been living and our habits and responsibilities. We will be clear that we are not isolated but that we are all connected.

Another participant wrote in their presurvey response:

I do wonder whether our spiritual/psychic experiences are a part of the individual psychology of each of us, or from the collective unconscious, and so forth. As a finite, human being, I will never know the answer to these and other questions and possibilities . . . I have so much more I desire to do and experience, even as I want more time just to BE.

And postsurvey: "What I think about now because of the course . . . Life is energy. We always are transforming energy, and death is

another transformation of energy. As someone said: ‘Energy just moved.’”

Initially, these selected participants speak with uncertainty about the self, or at least the fate of the self. The latter expresses emphatic “I” statements and a longing to continue “being.” And yet, clearly this “I” focus dissolves after the course, replaced in the context of a unified “we,” and an understanding of self as energy, something that continues “being” even after death. The first respondent also demonstrates a similar shift, specifically identifying the connectedness that binds everything, and uses the plural *we* to indicate the nature of this ultimate unity. These thematic trends complement the linguistic data that indicate a marked decrease in body identification and an increase in abstract pronoun use between the precourse and the postcourse journaling narratives.

One of the most striking linguistic trends was *certainty*, which showed an increase of 58% in the pre- and postresponses. Although the structure and content of the intervention was designed to promote cognitive flexibility—indeed the ontological transformations already discussed reflected an openness to restructuring one’s knowledge framework—the end result for some participants showed a deeper affirmation of their previous beliefs. Some excerpts included, “Whenever this topic is discussed I feel it reinforces the most positive and hopeful of my spiritual beliefs”; “The course increased the strength of my belief”; and “The class confirmed my view of reincarnation in afterlife.”

For these participants, certainty was increased for their personal ontology. The implications of this for TMT should be followed up on in future research. Future research also could focus on whether (and how) exposure to afterlife worldview diversity can both enhance personal worldview and cognitive flexibility. The discussion in the following sections provides preliminary insight into this possibility.

It is worth noting one of the above participant’s specific use of their fellow attendees’ remarked: “As someone said: “*Energy just moved.*”” Although the afterlife curriculum establishes a significant learning foundation for each individual, treading that path of discovery alone is perhaps not quite as effective as exploring these shared unknowns with the support and diverse perspectives of others. Thus, the community building aspect of the course, and mean-

ingful discourse as a tool to that end, provided an enriching and invaluable quality to the presented curriculum and overall value of the intervention for those who responded. Another participant specifically addressed the significance of this communal facet of the course in their postcourse journaling response to the mortality salience prompt,

If I am in a lonely, fear-based place, death seems very scary and I am afraid to experience it by my self. If, I am in a good place (like your class) and surrounded by others with noetic views, I am very excited for death. In this state of mind, this level of energy, I am very motivated to maximize my spiritual growth, and elevate my consciousness to make my passing as loved-filled as humanly possible. There is no fear here, just an excitement/anticipation/eagerness for the unknown.

As this participant illustrated, mortality awareness for the aging individual often brings with it feelings of angst and fear and loneliness. However, as seen above, they continue on with remarks that are a powerful testament to the value of establishing a shared environment of trust and emotional safety when addressing the topic of death and dying.

The population in this study was homogeneous with 93% White/Caucasian and 63% 60 years of age or older. Still, the dialogue structure in this circle enabled a diversity of worldviews to be more clearly and openly expressed. In the intervention nurturing this type of environment began with (and continued throughout) presenting an array of perspectives, from scientists to mystics, to lay stories of near-death experiences (NDEs), and more. This opening up of belief and possibility gave participants new afterlife perspectives to ponder and opened the door further to examining and expressing their own beliefs.

The value of presenting worldview diversity becomes most clear in the response to the final journaling question found only postcourse (meaning it was not included in the pre/postanalyses), “Did you experience any shift in your worldview about the afterlife?” For example, one participant wrote,

Besides the fact that my beliefs feel strengthened, I have a better understanding about beliefs of other cultures, and feel that I have added certain pieces to my own beliefs, such as the ideas of Tony Redhouse. In particular I want to strive to approach other worldviews, and my own, with respect and humility. I want to continue to allow openness and space for something different to enter.

And another:

My personal experiences and beliefs are real, and other people's are real too. It's okay to not "know" for sure what the afterlife is like, but by sharing our views and experiences, we open the conversation in ways that still support the existence of an afterlife, regardless of variation of perspectives.

A third: "I am more aware of a variety of worldviews about the afterlife, and that the many ways of viewing life and death are often complementary."

This sampling of responses points to an interesting aspect of worldview transformation: Exposure to new worldviews can help catalyze profound shifts in an individual's relation to others, and to themselves as well (Vieten, Amorok, Schlitz, 2006). We found it remarkable that respondents pointed to worldview differences as "affirming" rather than isolating. One earlier participant used the word *humility*, which captures the essence of an open engagement with this topic and how on this level the intervention did indeed cultivate a capacity for cognitive flexibility.

Understanding afterlife worldview diversity can mean embracing uncertainty and that diversity is, at its core, a product of an environment of not knowing, and our shared striving to find beauty and "complementary" meaning within it. Thus, the 58% increase in certainty proves a difficult category to analyze because the expression of this characteristic could be embedded in a variety of narrative arcs (i.e., certainty in one's beliefs, certainty in the value of others' beliefs). Future research should parse out the nuances of this dynamic using more clearly defined survey prompts.

Course Evaluations

Feedback from the pilot intervention was uniformly positive and included follow-up comments that provided support for the efficacy of the intervention for deepening people's perspectives about death and inviting open-minded curiosity about and exploration of diverse worldviews on the afterlife.

P1: I just want to thank you all so much for this course, the reflection, and the research you are all doing in this area. As I mentioned in one class, there seems to be such a need to begin shifting our fear-based health system to one of confidence, curiosity/inquiry, and true

caring. This feels to me like a major step toward realizing such a vision.

P2: I do want to mention that after the course I had a huge dream. It centered around a dear friend who died. I was surprised at how much unfinished business was around this death. I also remembered other significant deaths I had forgotten to mention in the journal entries. Loved the course!

P3: I want to express my deepest thanks for your caring and insights, and for the research and technical skill and integrity that flowed through the experience of this course. Because of the careful selection of reading and video and audio materials, and the class discussions, I have been able to deepen my awareness of all the research and study that is going on regarding death and life after death, in a safe environment where I could learn and evolve. I have deepened my sense of connection to all those asking the important questions and seeking ways to answer them.

Perhaps the most striking aspect of this program was the degree to which participants shared their most intimate concerns with strangers who were part of the program and were connected by phone. This reinforces the value of distant learning programs for people who have limited mobility or live in isolated areas. The afterlife awareness training gave a useful and powerful structure to the diverse and transformative discourse. The process of self-inquiry and self-reflection further spurred new insight. And the ability to share one's insight with others exploring that same mystery gave a nurturing, affirming, mutual quality to those discoveries.

Significance and Future Directions

This work provides a solid foundation in which to fully develop and evaluate death awareness for both clinical and sociological applications. The goal of raising death awareness is to help transform peoples' fear, anxiety, and defensiveness about death into life affirming values for living fully and deeply. This research contributes to the growing empirical literature in this area by identifying how worldviews about an afterlife may impact people's attitudes toward death. It also offers a unique contribution to clinical care around death awareness by advancing professional education around core competencies including social and emotional intelligence, spiritual competency, cultural diversity, and effective communication skills for end-of-life care, potentially filling a void in caregiver knowledge and experience.

Although preliminary, the research is distinguished by the unique manipulations that it employed (the triangulation of multiple diverse worldview videos, journaling, and small group discussions through a distant learning program) and the measures it used, including language use analysis and mortality salience prompts. From a discourse-based analysis of people's capacity to find meaning in the challenges of facing death to people's responses to diverse perspectives on death, the completed research is at the cutting edge of our limited scientific understanding of the impact of people's worldviews around death and provides a solid basis on which to conduct future research.

Given the exploratory nature of the study, there are a number of limitations to generalizing the results. These include a nonrandomized and very small, homogenous sample, no comparison group, no long-term follow-up, and limited outcome measures. These represent areas of future protocol improvement in a more formal study with nurses that is currently being developed. In addition, better retention could be achieved by offering continuing education or classroom credits for certain participant populations. Future interventions also may be improved by utilizing the *Death Makes Life Possible* film as an educational tool.

The findings presented here advance our understanding of how people think about what may follow death and why that matters, especially for those in health care and clinical professions. Further research is warranted to ascertain how such an intervention can be most effectively and broadly applied. Given the urgent social and professional need to address end of life issues, this multimedia approach offers a valuable teaching aid that can be translated into a scalable program to not only help lay people deal with their own mortality and that of their loved ones, but to help caregivers and other health care professionals improve the quality of care given to those at the end of life. Grounding these programs in an evidence based perspective allows for quality and discernment that may help to reduce human suffering.

References

- Abbas, S. Q., & Dein, S. (2011). The difficulties assessing spiritual distress in palliative care patients: A qualitative study. *Mental Health, Religion & Culture, 14*, 341–352. doi:10.1080/13674671003716780
- Balboni, M. J., Sullivan, A., Enzinger, A. C., Epstein-Peterson, Z. D., Tseng, Y. D., Mitchell, C., . . . Balboni, T. A. (2014). Nurse and physician barriers to spiritual care: Provision at the end of life. *Journal of Pain and Symptom Management*. Advance online publication. doi:10.1016/j.jpainsymman.2013.09.020
- Becker, E. (1973). *The denial of death*. New York, NY: Simon & Schuster.
- Dechesne, M., Pyszczynski, T., Arndt, J., Ransom, S., Sheldon, K. M., Van Knippenberg, A., & Janssen, J. (2003). Literal and symbolic immortality: The effect of evidence of literal immortality on self-esteem striving in response to mortality salience. *Journal of Personality and Social Psychology, 84*, 722–737. doi:10.1037/0022-3514.84.4.722
- Greeley, A. M., & Hout, M. (1999). Americans' increasing belief in life after death: Religious competition and acculturation. *American Sociological Review, 64*, 813–835. doi:10.2307/2657404
- Greenberg, J., Pyszczynski, T., Solomon, S., Rosenblatt, A., Veeder, M., Kirkland, S., & Lyon, D. (1990). Evidence for terror management theory II: The effects of mortality salience on reactions to those who threaten or bolster the cultural worldview. *Journal of Personality and Social Psychology, 58*, 308–318. doi:10.1037/0022-3514.58.2.308
- Heflick, N. A., & Goldenberg, J. (2012). No atheists in foxholes: Arguments for (but not against) after-life belief buffers mortality salience effects for atheists. *British Journal of Social Psychology, 51*, 385–392. doi:10.1111/j.2044-8309.2011.02058.x
- Killoran, M., Schlitz, M., & Lewis, N. (2002). Unremarkable recoveries: Normalizing adversity and cancer survival. *Qualitative Health Research, 12*, 208–222. doi:10.1177/104973202129119847
- Klenow, D. J., & Bolin, R. C. (1990). Belief in an afterlife: A national survey. *Omega, 20*, 63–64.
- Levine, J. M., & Moreland, R. L. (1990). Progress in small group research. *Annual Review of Psychology, 41*, 585–634. doi:10.1146/annurev.ps.41.020190.003101
- Ma' Sumian, F. (1995). *Life-after-death. A study of the afterlife in world religions*. Oxford, England: One World.
- Malinowski, B. (1954). *Magic, science and religion*. New York, NY: Doubleday.
- McSherry, W. (2006). *Making sense of spirituality in nursing and health care practice: An interactive approach*. London, England: Kingsley.
- Meredith, P., Murray, J., Wilson, T., Mitchell, G., & Hutch, R. (2012). Can spirituality be taught to health care professionals? *Journal of Religion and*

- Health*, 51, 879–889. doi:10.1007/s10943-010-9399-7
- Obayashi, H. (Ed.). (1992). *Death and afterlife: Perspectives of world religions*. New York, NY: Greenwood Press.
- Pennebaker, J. W. (2011). Expressive writing for mental health. *Harvard Mental Health Letter*, 331, 6.
- Pennebaker, J. W., Chung, C. K., Ireland, M., Gonzales, A., & Booth, R. J. (2007). The development and psychometric properties of LIWC2007. Austin, TX: LIWC.
- Petersen, K., Schlitz, M., & Vieten, C. (2013). *Worldview explorations facilitator guide*. Petaluma, CA: Institute of Noetic Sciences. Available at <http://store.noetic.org/Worldview-Explorations-Facilitator-Guide.html>
- Pew Forum on Religion and Public Life. (2008). *U.S. Religious Landscape Survey*. Washington, DC: Author.
- Pew Research Center. (2012). *“Nones” on the rise: One-in-five adults have no religious affiliation.* Washington, DC: Author.
- Rosenblatt, A., Greenberg, J., Solomon, S., Pyszczynski, T., & Lyon, D. (1989). Evidence for terror management theory: I. The effects of mortality salience on reactions to those who violate or uphold cultural values. *Journal of Personality and Social Psychology*, 57, 681–690. doi:10.1037/0022-3514.57.4.681
- Schlitz, M. (in press). *Death makes life possible: Revolutionary insights on living, dying and the continuation of consciousness*. Boulder, CO: Sounds True.
- Schlitz, M., Vieten, C., Miller, E., Homer, K., Peterson, K., & Erickson-Freeman, K. (2011, Winter). The worldview literacy project: Exploring new capacities for the 21st century student. *New Horizons for Learning, John’s Hopkins University School of Education*, IX, 1.
- Sherkat, D. (1999). Tracking the “other”: Dynamics and composition of “other religions” in the General Social Survey, 1973–1996. *Journal for the Scientific Study of Religion*, 38, 551–560. doi:10.2307/1387612
- Tausczik, Y., & Pennebaker, J. (2010). The psychological meaning of words: LIWC and computerized text analysis methods. *Journal of Language and Social Psychology*, 29, 24–54. doi:10.1177/0261927X09351676
- Tausczik, Y., & Pennebaker, J. (2013, April/May). *Improving teamwork using real-time language feedback*. Paper presented at the CHI Conference on Human Factors in Computing Systems, Paris, France.
- Vail, K. E., Juhl, J., Arndt, J., Vess, M., Routledge, C., & Rutjens, B. T. (2012). When death is good for life considering the positive trajectories of terror management. *Personality and Social Psychology Review*, 16, 303–329. doi:10.1177/1088868312440046
- Vieten, C., Amorok, T., & Schlitz, M. M. (2006). I to we: The role of consciousness transformation in compassion and altruism. *Zygon*, 41, 915–932. doi:10.1111/j.1467-9744.2006.00788.x
- Vieten, C., Scammell, S., Pilato, R., Ammondson, I., Pargament, K. I., & Lukoff, D. (2013). Spiritual and religious competencies for psychologists. *Psychology of Religion and Spirituality*, 5, 129–144. doi:10.1037/a0032699
- Wright, A. A., Zhang, B., Ray, A., Mack, J. W., Trice, E., Balboni, T., & Prigerson, H. G. (2008). Associations between end-of-life discussions, patient mental health, medical care near death, and caregiver bereavement adjustment. *Journal of the American Medical Association*, 300, 1665–1673. doi:10.1001/jama.300.14.1665

Received June 8, 2014

Revision received July 30, 2014

Accepted August 7, 2014 ■