

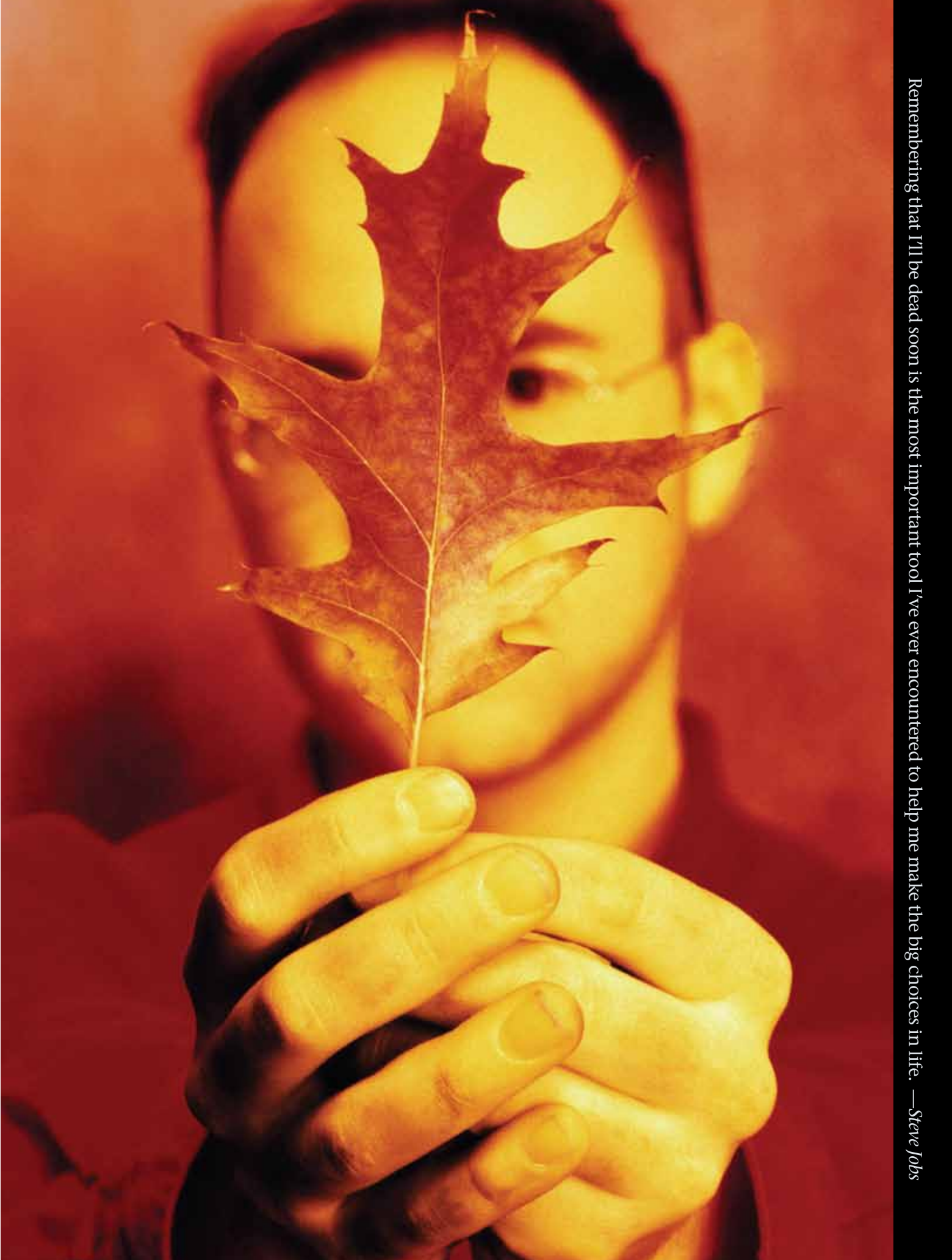
MORTAL THOUGHTS

We run from the subject like there's no tomorrow, but thinking about death can ease our angst and make us better people, too

By **Michael W. Wiederman**



MMy father was just 32 years old when he was diagnosed with acute leukemia. Weeks later he was in the hospital, informed that he would not be leaving. Miraculously the leukemia went into remission, and he lived another five years. Even as a child, though, I could clearly see that the man who returned from the hospital was not the same one who had left home. Before, he had been concerned mostly with work and material success; now he embraced religion and family. Getting a second, tenuous chance at life was a profound experience that deeply changed his values and behavior.



Remembering that I'll be dead soon is the most important tool I've ever encountered to help me make the big choices in life. —*Steve Jobs*



We deflect it with humor, hedge against it with good works, shun reminders of our animal nature. Yet we all share the reality of mortality, and we know it, try as we might to throttle our thoughts about it. Indeed, this simultaneous knowing and recoiling from our knowl-

edge is a tension that will run throughout our life. Yet despite the significance of the subject, for most of its history psychology has left the matter of how mortal thoughts affect us almost completely unexplored—terror incognita.

That neglect appears to be a thing of

FUTURE SHOCK: A close brush with death or the death of a loved one can prompt us to reassess our lives.

the past. In recent years researchers have begun to find that awareness of mortality affects our behavior in ways both overt and subtle and sometimes seems to pull us in opposite directions. Therapists who take an existential approach to counseling have found that confrontation with our mortality is worthwhile and beneficial. At the same time, a new discipline called Terror Management Theory (TMT) has spawned hundreds of studies showing that awareness of our mortality can lead to selfish, even hurtful behavior.

More recently, this apparent disagreement among different disciplines, common enough in new fields of research, has given way to a deeper understanding of why our thoughts about mortality sometimes help us and sometimes do us harm. One essential determinant of how we handle the subject appears to be whether our life goals are material or ide-

FAST FACTS

Making Sense of Mortality

- 1>>** Awareness of our mortality has different effects depending on whether the awareness is conscious and reflective or subconscious and fleeting. Prolonged contemplation of death produces shifts in personal values and goals.
- 2>>** Terror Management Theory proposes that we unconsciously fend off thoughts of our mortality by investing in our culture as a symbolic way of attaining some degree of immortality.
- 3>>** A large body of research has shown that subconscious awareness of mortality prompts people to defend their worldviews, even in ways that may be harmful.

alistic. The effect of mortal thinking on behavior also seems to depend on whether death is at the top of our mind or hovering just beyond our consciousness. Still, the duality of helpful and harmful effects echoes one of life's central conundrums: we cannot deny that someday we will die, so how are we to keep this paralyzing truth from paralyzing us?

Facing Death Head-on

In one of my favorite cartoons, by Eric Lewis, a man lying on his deathbed says to his attentive wife, "I should have bought more crap." The dying man's regret is a tour de force of deflection and misdirection, the opposite of what we expect of a man looking back with rue. For most of us, a near-death experience or the death of someone we know prompts us to take stock of our life in a good way. This certainly was true for my father, and it is precisely the effect that existential therapists count on as they try to help their clients confront mortality and shift their life onto a more meaningful path. Typically the shift is from extrinsic values and goals, such as material success, toward intrinsic ones, such as matters of the soul or spirit.

Surveys validate the usefulness of the approach. In a study published in 2007 Emily L. B. Lykins of the University of Kentucky and her colleagues questioned staff at a medical center in Northridge,

Calif., two to three weeks after an earthquake devastated the surrounding area, killing 57 and injuring thousands more. The staff were asked to rate the importance of 16 different goals both currently and as they were before the earthquake. The results indicated a shift in values toward intrinsic goals such as cultivating close relationships, doing creative work and developing as a person. Moreover, those respondents who had most strongly feared they were going to die in the earthquake were also most likely to indicate a shift from extrinsic to intrinsic goals.

The beneficial effect works the other way around, too. People who pursue intrinsic goals have more success in heading off anxiety associated with death than those who chase material things. In 2009 Alain Van Hiel and Maarten Vansteenkiste of Ghent University in Belgium published their survey of older adults (with an average age of 75). The elders who reported having fulfilled more of their intrinsic goals were the least anxious about death and most satisfied with their life. In contrast, respondents who reported the greatest attainment of extrinsic goals indicated the most despair and the least acceptance of death.

Intrinsic life goals and the creation of meaning appear to be central to coping with our mortality. William S. Breitbart and several colleagues at Memorial Sloan-Kettering Cancer Center in New

York City recently published the results of an intervention with patients coping with advanced stages of cancer. The patients were randomly invited to participate in one of two groups that met once a week for eight weeks. The first group, which focused on social support, facilitated discussions about day-to-day concerns and ways to cope with them. The second group focused on the sources of meaning in life. At the end of the eight weeks and again at a two-month follow-up, members of the group focused on meaning in life showed substantial increases in their scores on measures of meaning, peace and faith, along with decreases in anxiety and desire for death. The members of the group focused on social support showed no statistically significant changes.

Taming Terror

These surveys suggest that people who have an abrupt encounter with mortality tend to seek meaning in life, and those who pursue meaning in life can handle mortality more easily. People also seem to use systems of meaning to block awareness of their mortality, clinging to aspects of their life that provide connection with social structures.

How this protective shield might work is the focus of the burgeoning field of Terror Management Theory. Based on the writings of cultural anthropologist Ernest Becker in the 1960s and 1970s and the more recent work of psychologists Jeff Greenberg of the University of Arizona, Tom Pyszczynski of the University of Colorado and Sheldon Solomon of Skidmore College, TMT proposes that we humans maintain a shared culture because social roles and consequences for behavior keep us busy and so insulate us from the existential terror of our impermanence.

Interesting as such propositions are, they leave unanswered the question of whether our thoughts of mortality are what spur us to defend our culture and

NEXT GEN: Parenthood provides us with a sense of purpose and symbolic immortality that can help stave off existential angst.



GARY JOHN NORMAN/Getty Images



bolster our self-esteem or whether we just do what we do because it feels right. Psychologists needed a new approach to tease out how our mortal thoughts influence us.

Death in the Laboratory

Imagine you are staying with a friend who lives on the 20th floor of an old

apartment building. It's the middle of the night. You are awakened from a deep sleep by the sound of screams and the choking smell of smoke. You run to the door and reach for the handle. You pull back in pain as the intense heat of the knob burns your skin. You grab a blanket from the bed for protection and manage to open the door. Almost imme-

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SPIRIT: Religion can temper fear of mortality by providing believers with a strong sense of purpose and by giving death a context so that it no longer seems a great unknown.

diately, a huge wall of flame and smoke roars into the room. It is getting very hard to breathe, and the heat from the flames is almost unbearable. You try calling out for help, but you can't find the air to form the words. With your heart pounding, it suddenly hits you that you are moments from dying. Out of breath and weak, you shut your eyes and wait for the end.

Fun thought exercise, yes? It is drawn from a 2003 study by Philip J. Cozzolino, now at the University of Essex in England, and his colleagues. Contemplating scenarios like it is how volunteers in some of the 300 or so TMT studies conducted during the past two decades were primed (and terrified) before they were put through their paces by researchers trying to see how reflection about death can affect human behavior.

Most TMT research focuses on the so-called mortality salience hypothesis: if investment in our culture and self-esteem serves to fend off our sense of mortality, then stimulating our awareness of mortality should increase investment in our culture and self-esteem. Researchers can arouse mortality salience in a variety of ways, but in most studies, participants are asked to write essays in which they imagine either death or some other kind of pain.

One group might be asked to visualize a scenario akin to the one above and to describe both what would happen to them physically as they died and the feelings kindled in them by thinking about their death. The control group might be asked to imagine and describe a less terminally uncomfortable event, such as an episode of dental pain or an experience of social exclusion. Then the researchers attempt to assess how the two groups differ in their self-esteem and their willingness to invest in their culture.

Researchers learned that when thoughts of death reverberate too loudly, they can drown out subtle but important changes in our behavior. When we are made to concentrate on our mortality, we tend to defend against anxiety by direct means, primarily denial, rationalization and a focus on the positive aspects of our life, boosting our sense of well-being by converting death into an abstraction that lies in the far future. Thus, if scientists measure investment in worldview or self-esteem immediately after increases in awareness of mortality (as with the group writing about death by fire), usually they see no apparent effects. The relations appear only when respondents are distracted after their awareness is heightened.

In a typical study, after completing the death essay (or the control essay), participants perform a filler task having nothing to do with death so that any unconscious defenses against mortality awareness have a chance to emerge. Only then comes a measurement of the participants' investment in their culture or self-esteem. Within this framework, researchers began to see that our mortality affects us in ways we do not even realize, especially in how it can transform our goals.

Religiosity and Creatureliness

Because religion is such an important aspect of our worldview (not least whether we are pro or con), it makes an especially useful starting point for researchers. Religious teachings tend to explain what happens to believers and nonbelievers after death, so defending one's religious beliefs in the face of mortality is particularly common. Yet a series of studies reported in 2006 by Ara Norenzayan and Ian G. Hansen, psychologists at the University of British Columbia, showed that thoughts of death did more than make people with religious dispositions think of eternity at the right hand of God.

In the first of their studies, college students randomly assigned to write the standard death essay rated themselves about 30 percent higher on measures of

religiosity and belief in God than did students assigned to write the control essay. What the experiment did not reveal was whether thoughts of death simply reminded people of their religious belief or prodded them to bolster their religiosity as a defense against mortality. To investigate this possibility, the second study randomly exposed college students to one of three versions of a brief story about a boy's visit to a hospital. All versions started and ended the same, but the middle



tuality, culture also helps to protect us from thoughts of mortality through norms and customs that let us forget we are animals, which we know are mortal and die for capricious reasons. For example, elimination of bodily waste is taboo and performed in private, and our clothing and grooming typically help us avoid the smell and look of wild creatures. Our dining manners and rituals keep us from "eating like an animal," a charge that is clearly an insult.

passages differed. In the control version, the boy watched an emergency drill carried out by adults, in the religious version the boy observed a man praying in the hospital chapel, and in the death version the boy had an accident and died.

One of the distraction tasks in the experiment called for students to read a report of a study illustrating apparent effects of Christian prayer by strangers on the reproductive rates of women attending a fertility clinic. As part of their assessments of the study, participants were asked to rate their belief in God or in a higher power. The ratings by students in the control condition and religious condition did not differ, but both were significantly lower than the ratings by those in the death condition. It seems that mortality salience uniquely motivates people to bolster their religious beliefs.

Besides giving us a context for spiri-

FLESH: Research suggests that people who have been primed to think about death are more likely to be uncomfortable at the sight of a mother breast-feeding in public.

TMT proposes that experiences that remind us of our animal nature will arouse awareness of our mortality, thus causing us to avoid them, especially if mortality salience is already heightened. How we might feel about seeing a woman breast-feeding her infant, for instance, seems to be influenced by whether we have been made aware of our mortality beforehand.

In 2007 Cathy Cox, now at Texas Christian University, and her colleagues published their research on this question. In their first study, college students rated their reaction to a written scenario in which a woman breast-feeds in a fancy restaurant, provoking a negative

reaction from the restaurant staff. Volunteers who had been primed with the death essay rated the woman 40 percent more harshly than did the students primed by the dental pain essay.

Cox and her colleagues followed up by bringing breast-feeding into the lab, although no actual breast-feeding occurred. The researchers told college student participants that the study involved formation of impressions of another person before completing a task with that person. The subjects were advised that the other participant was a

asked to rate their impressions of this other student with whom they would soon be working.

When rating the likability of this mystery woman, students who had written about dental pain returned similar ratings whether the woman was described as bottle-feeding or breast-feeding. Yet those primed with the death essay rated the young mother as less likable when she was said to be breast-feeding. Last, the participants were told it was time to perform the joint task with the young mother. They were taken to an

imals. Other researchers have demonstrated this phenomenon with people's reactions to the elderly, disabled individuals and sexual activity. In an article published in 2000 the originators of TMT (Greenberg, Pyszczynski and Solomon) described research they conducted with their colleague Jamie Goldenberg, now at the University of South Florida. College students who underwent the standard method for inducing mortality salience rated the physical aspects of sex as less appealing compared with students who had not been so

HORROR: Enjoying a violent movie or book can let us confront death vicariously while remaining safely insulated from our own mortality.



primed. The same researchers later found that students primed to focus on the romantic meaning of sex experienced fewer thoughts about death than did those primed to focus on the physical aspects of sex.

Handling Death

So what does all this tell us about how we might manage our fear of mortality? If brushes with death help people worry less about it and devote more energy to the things that give deeper meaning to life, then focused thinking about death might help the rest of us.

We already expose ourselves to death without knowing why. We watch slasher films, read violent novels and news accounts of tragic deaths, and share sick jokes about death and corpses. Such diversions might appeal to us because vicarious experiences of death can satisfy curiosity and address our anxiety in a way that keeps our own mortality at a safe remove. In fact, by choosing exposure to death we exert a degree of control. Death becomes something that prompts a laugh, a groan or a thrill rather than terror. Culturally constructed scenarios of death may serve as a safety valve for venting anxiety.

Repeated exposure to death and dying in naturalistic settings also appears to lower discomfort around the topic. In

young woman who could not find child care and had to bring her infant along with her; she had arrived early and was feeding the child in the other room.

The students were randomly told either that the mother was breast-feeding or bottle-feeding and then were randomly assigned either to the standard death essay or to the dental pain essay. After filling out a questionnaire about hobbies and interests, the students were presented with what they believed was a like questionnaire that had been completed by the young mother in the other room. In reality, there was no such person, and all students were shown the same fictitious profile. They were then

empty room containing only two folding chairs leaning against the wall and were asked to set up the chairs, facing each other, in preparation for the task. The researchers were looking to see how closely the students placed the chairs. The distances between the two chairs were very similar in all but one condition: the students placed the chairs about 20 percent farther apart when they had been primed with the death essay and told that their partner had been breast-feeding.

It appears that when primed to think about our own mortality, we tend to disparage and distance ourselves from reminders that we humans are an-



2008 Susan Bluck and her colleagues at the University of Florida published a study of hospice volunteers. Scores on a measure of death anxiety were lower for more experienced volunteers than for novices. Also, the best predictor of the level of their anxiety about death was not the length of time the volunteers had served but the number of deaths they had attended. Ironically, by prolonging human lives and removing our loved ones from their natural habitats when they are dying, medical technology has insulated us from experiences with death; greater anxiety about mortality may be a side effect.

One brief period of thinking about our mortality would probably do little good. Yet repeated contemplation of our eventual death could both lessen the anxiety about it and help keep us focused on the aspects of life that matter most.

Without such focused contemplation, thinking about the end of life is as likely to take us to the darkness as to the light. In a survey of nearly 1,000 stu-

dents who took her Sociology of Death and Dying course at the University of Louisiana at Lafayette from 1985 to 2004, Sarah Brabant asked her students how often they thought about death. The most common responses were “occasionally” (58 percent) and “frequently” (20 percent). She also asked how the students felt when they thought of their own mortality. The two most common responses were “fearful” and “pleasure in being alive,” each at 29 percent.

ENDGAME: Elderly people whose life goals were idealistic, such as the pursuit of meaningful work and relationships, tend to be less anxious about death than those who focused on material accomplishments.

Within these few statistics lies the human condition. We cannot escape awareness of our mortality, and that awareness has the power to elicit fear or appreciation. Fortunately, the choice is ours. **M**

(Further Reading)

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