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Self-Related Consequences of Death Fear and Death Denial

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Abstract

This study explores self-related outcomes (e.g., esteem, self-concept clarity, existential well-being) as a function of the interaction between self-reported levels of death fear and death denial. Consistent with the idea that positive existential growth can come from individuals facing, rather than denying, their mortality, (Cozzolino, 2006), we observed that not fearing and denying death can bolster important positive components of the self. That is, individuals low in death denial and death fear evidenced an enhanced self that is valued, clearly conceived, efficacious, and that has meaning and purpose.

KEYWORDS: DEATH; MORTALITY; DENIAL; FEAR; SELF

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"…the paradox became clearer and clearer. Death destroys a man: the idea of
Death saves him. Behind the coffins and the skeletons that stay the vulgar
mind lies something so immense that all that is great in us responds to it."

-E. M. Forster (1910)

Thinking about death is not pleasant. When given a choice to actively contemplate

mortality or to deny death altogether, most individuals would likely choose the latter option.

Despite our best efforts to defy the mortal consequences of tomorrow, however, thoughts of

death are as inevitable as death itself. In addition to documenting a generalized fear of mortality,

past research has also established that thoughts of death are multidimensional, in that people

think about death (and are fearful of it) in different ways (Florian & Mikulincer, 2004). Our

research and theorizing is focused on the extent to which individuals respond to death either

with desires to deny its consequences, or with a willingness to engage with its reality (e.g.,

Cozzolino, 2006; Wong & Tomer, 2011). The current study focuses on the relationship between

pre-existing fears of death and desires to avoid thoughts of death, and how that relationship

corresponds to positive components of the self.

In 1974, cultural anthropologist Ernest Becker posthumously received the Pulitzer Prize

for his book, "The Denial of Death." Becker's thesis is that fear and denial of death exist as the

springboard for all human activity. Further supporting Becker's (1973) assertion is the

abundance of research generated over the last 25 years derived from terror management theory

(TMT; Greenberg, Pyszczynski, & Solomon, 1986). TMT begins with the inherent conflict

between our biological predisposition for survival, and our highly-developed cognitive

capabilities that render us uniquely aware of our inevitable demise. As a result of the existential

crisis generated by this conflict, the theory states, humans seek to deny their personal

vulnerability to death by embracing that which cannot die. Specifically, humans endorse cultural

worldviews – social beliefs and standards that are imbued with value and that become symbolic representations of the self.

Cultural worldviews quell the fear of death not only by providing structure to a seemingly chaotic - and ultimately doomed - existence, but they also hold the promise of immortality. Specifically, TMT distinguishes between traditional pursuits of *literal immortality*, which manifest as religiosity (i.e., deeply-held beliefs in God and in an afterlife), and desires for *symbolic immortality*, such as being a creative artist, an influential scientist, or a caring parent (e.g., Florian, & Mikulincer, 1998). By adhering and conforming to worldview-relevant expectations, individuals bolster their symbolic-self, and become valuable members of the culture in which they live, all of which serves the function of managing – and reducing – their fear of death.

Whereas TMT assumes that individuals become defensive and predominately seek meaning from symbolic sources that are extrinsic to the self, Cozzolino (2006) has advanced a model of dual-existential systems that incorporates other forms of death awareness, which facilitate open, authentic, and intrinsic strivings for personal meaning and existential development (see also Cozzolino & Blackie, in press). This conception of mortality awareness draws heavily upon posttraumatic-growth research (Calhoun & Tedeschi, 2001), which has documented positive psychological growth among many individuals facing, rather than denying, their mortality. The sort of growth often observed among individuals confronting potentially life-ending situations includes increased desires for self-direction, closer relationships, and reorganized priorities with a new appreciation of life. Similar outcomes have been documented among survivors of so-called 'near-death experiences' (Ring & Elsaesser Valarino, 1998). Noyes (1980) noted that many near-death experience respondents claimed they had integrated mortality as a concept more fully into their lives, and as a result, reported feeling a new energy for living, and lower levels of death fear. This conception of accepting death, as opposed to denying its reality, is broadly consistent with multi-stage theories of how individuals cope with death

(Kübler-Ross, 1969) and with empirical assessments of self-reported considerations of death fear and death acceptance (Wong, Reker, & Gesser, 1994).

There is emerging experimental evidence that specific and individuated mortality awareness manipulations, which are thought to facilitate open and authentic considerations of death (i.e., *death reflection*), can generate increased desires for intrinsic striving and more prosocial behavior, compared to unspecific and abstract *mortality salience* manipulations (Cozzolino, Staples, Samboceti, & Meyers, 2004; Blackie & Cozzolino, 2011; Frias, Watkins, Webber, & Froh, 2011; Cozzolino, Blackie, Rentzelas, Geeraert, & Meyers, 2012). Despite this experimental evidence, however, we are unaware of research that has explicitly explored positive components of the self (e.g., esteem, self-concept clarity, existential well-being) as a function of the interaction between self-reported levels of death fear and death denial. Cozzolino's (2006) model - and the anecdotal evidence from NDE researchers (e.g., Ring & Elsaesser Valarino, 1998; Noyes, 1980) - suggests that not denying death and not fearing it, ought to result in greater well-being and a more robust and healthy sense of the self. Thus, we predicted that positive components of the self would be most evident among individuals who report not fearing death, and who also report not avoiding thoughts of death in their lives.

Method

Participants

A total of 185 subjects (51 men, 134 women) ranging in age from 18 to 51 ($M = 21.04$, $SD = 4.92$) participated in this study. All participants were enrolled in introductory psychology courses at California State University, Sacramento and fulfilled a course requirement with their involvement. Most of the sample was Caucasian (50%), followed by Asian (20%), Latino (11%), African-American (5%), and Multi-Racial (5%)with the remaining ethnicities unknown.

Measures

Death Fear and Denial. One scale designed to incorporate the assessment of attitudes toward death is the death attitude profile-revised (DAPR; Wong et al., 1994). For the purposes of the current study, we focused on two of the DAPR's five subscales, namely *fear of death* and *death avoidance* (i.e., denial). Participants respond to the items with a 7-point scale ranging from *strongly disagree* to *strongly agree*. Example items from the fear of death subscale include, "I have an intense fear of death" and "Death is no doubt a grim experience." Examples from the death avoidance subscale include, "I avoid thinking about death altogether" and "I avoid death thoughts at all costs."

Social Desirability. Participants completed the 33-item Marlowe-Crowne social desirability scale (MCSDS; Crowne & Marlowe, 1960), which measures the tendency of individuals to project favorable images of themselves. Participants respond to the items by marking the statements as 'true' or 'false.' Example items include "Before I vote, I thoroughly investigate the qualifications of all of the candidates" and "I am always courteous, even to people who are disagreeable."

Positive Components of the Self

Self-Concept Clarity. Participants completed the 12-item self-concept clarity scale (SCCS; Campbell et al., 1996), which assesses the extent to which self-beliefs are clearly defined, consistent, and stable. Higher self-concept clarity is associated with higher relationship satisfaction and commitment (Lewandowski, Jr., Nardone, & Raines, 2010), lower levels of neuroticism, higher self-esteem, and greater internal state awareness (Campbell et al., 1996). Items are scored on a response scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Example items include "My beliefs about myself often conflict with one another" and "In general, I have a clear sense of who I am and what I am."

Locus of Control. Participants completed the 28-item internal control index (ICI; Duttweiler, 1984), which focuses specifically on internal locus of control, and that has better psychometric properties than measures of both external and internal control. Among other beneficial outcomes, internal locus of control is positively associated with emotional stability, self-esteem, and self-efficacy (Judge, Erez, Bono, & Thoresen, 2002). Participants respond to items using a 1 (*rarely*) to 5 (*usually*) scale. Sample statements include "If I want something I work hard to get it" and "Whenever something good happens to me I feel it is because I've earned it."

Self-Esteem. We administered the 10-item Rosenberg self-esteem scale (RSES; Rosenberg, 1965), which assesses global self-esteem. Participants respond to the items "dealing with your general feelings about yourself" with a scale ranging from 1 (*strongly agree*) to 4 (*strongly disagree*). Example items include "On the whole, I am satisfied with myself" and "I take a positive attitude toward myself."

Self-realization. Participants completed vector 3 of the revised California psychological inventory (CPI; Gough, 1987). The 58-item measure was not developed via empirical criterion keying (i.e., discriminating normative samples from different diagnostic groups, regardless of the face-validity of the items). According to Gough, "high scorers [on vector 3] feel themselves to be capable, able to cope with the stresses of life, and reasonably fulfilled or actualized. Low scorers feel themselves to be lacking in resolve, vulnerable to life's traumas, and not at all fulfilled or actualized" (1987, p. 20). A validation study showed that participants who were more self-realized had higher self-esteem, more internal locus of control, fewer neurotic symptoms, and lower levels of anxiety than individuals who were less self-realized (Weiser & Meyers, 1993).

Existential Well-Being. Respondents also completed the 10-item existential well-being (EWB) subscale of the spiritual well-being scale (Ellison & Paloutzian, 1982), which assesses the degree to which individuals feel that their life has meaning or purpose, apart from religiosity. Among other things, EWB is positively related to quality of life and effective coping strategies

(Tuck, McCain, & Elswick, 2001). Participants respond using a scale ranging from 1 (*strongly agree*) to 6 (*strongly disagree*). Example items include "I feel very fulfilled and satisfied with life" and "I feel a sense of well-being about the direction my life is headed in."

Procedure

Participants received packets containing the study's measures, which were presented in a random order for each respondent, followed by a demographic sheet. All participants completed the packet within 60 minutes and were debriefed upon completion.

Results

Preliminary analyses. We computed scores for all participants on the DAPR fear (α = .85) and avoidance (α = .89) subscales by calculating the mean response to the appropriate items. The remaining measures were creating by taking the sum of all responses to the appropriate items; in all cases, higher values on the measures indicate higher levels of the construct. Alpha coefficients for all remaining measures ranged from .81 (MCSDS) to .86 (SCCS).

Positive Components of the Self. A principal-axis factor analysis revealed that the five components of the self loaded on one factor, accounting for 40% of the common variance, with factor loadings ranging from .70 (EWB) to .55 (CPI). Bivariate correlations among the five variables were all positive and significant, ranging from .35 to .53. To explore further the relationship between concerns about death and positive components of the self, we created z-scores for the SCCS, ICI, RSES, CPI, and EWB variables and then combined them by calculating the mean response to the standardized measures, generating one composite measure (α = .77).

We mean-centered the death fear and avoidance measures, and created the interaction term by multiplying the two centered measures, as recommended by Aiken and West (1991). We regressed the positive components of the self variable onto social desirability scores in the first

step and the death fear and death avoidance main effects and their interaction, in the second step. This analysis revealed a significant main effect of death fear, such that levels of death fear were negatively related to positive components of the self (b = -.11, $S.E.$ = .05, t = -2.36, $p <$ .05). The analysis also revealed that death denial was negatively related to positive components of the self (b = -.08, $S.E.$ = .04, t = -2.11, $p <$ .05). These main effects were qualified, however, by a significant interaction between reports of death fear and death avoidance (b = .06, $S.E.$ = .02, t = 2.78, $p <$ .01).

Probing the interaction (see Figure 1) at 1 SD above and below the mean of death avoidance revealed a significant negative relationship between death fear and positive components of the self, but only among those individuals who reported low levels of death avoidance ($t = -3.48$, $p <$ .001); the relationship was not significantly different from zero among those participants who reported high levels of death avoidance ($p =$ .70). Analyses at -1 SD on reports of death fear revealed that participants who reported low levels of death avoidance had significantly higher scores on the positive components of the self variable than did individuals who reported high levels of death avoidance ($t = -3.37$, $p <$ .001).

General Discussion

Consistent with recent theorizing (e.g., Cozzolino, 2006; Wong & Tomer, 2011) into the potential benefits of not avoiding and/or fearing death, we observed that low levels of death denial and low levels of death fear significantly predicted an enhanced sense of self, at least as assessed via measures of self-esteem, self-concept clarity, locus of control, self-realization, and existential well-being.

The results presented in this study add to the nascent literature addressing the potential for psychological growth and enhanced meaning in life that individuals can find as a result of confronting death. From the dramatic life changes observed among individuals who actually face death (e.g., Calhoun & Tedeschi, 2001; Ring & Elsaesser Valarino, 1998), to the basic sorts of

reactions observed among experimental participants asked to reflect on a specific death (e.g., Blackie & Cozzolino, 2011; Frias et al., 2011), it seems that confronting death, rather than actively avoiding it, can generate a recalibration of the self. Research supporting TMT (Greenberg et al., 1986) has shown that motivated efforts to avoid thoughts of death, and the resulting fear those thoughts would generate, often predict an enhanced sense of the so-called 'symbolic-self' That is, a defensive self largely defined by – and embedded in – social systems and extrinsic expectations. Our data suggest that reduced levels of death avoidance and death fear predict a stronger, healthier *actual-self* that is personally valued, clearly conceived, efficacious, and that has intrinsic meaning and purpose.

References

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury

Park, CA: Sage.

Becker, E. (1973). *The Denial of Death*. New York: Free Press.

Blackie, L. E. R., & Cozzolino, P. J. (2011). Of blood and death: A test of dual-existential

systems in the context of prosocial intentions. *Psychological Science*, *22*, 998-1000.

Calhoun, L. G., & Tedeschi, R. G. (2001). Posttraumatic growth: The positive lessons of loss. In

R. A. Neimeyer (Ed.), *Meaning reconstruction and the experience of loss* (pp. 157-172).

Washington, DC: American Psychological Association.

Campbell, J. D., Trapnell, P. D., Heine, S. J., Katz, I. M., Lavallee, L. F., & Lehman, D. R.

(1996). Self-concept clarity: Measurement, personality correlates, and cultural boundaries.

Journal of Personality and Social Psychology, *70*, 141-156.

Cozzolino, P. J. (2006). Death Contemplation, Growth, and Defense: Converging Evidence of

Dual-Existential Systems? *Psychological Inquiry*, *17*, 278-287.

Cozzolino, P. J., & Blackie, L. E. R. (in press). I die, therefore I am: The pursuit of meaning in

the light of death. In Joshua Hicks and Clay Routledge (Eds.) *The experience of meaning in

life: Classical perspectives, emerging themes, and controversies*. Springer.

Cozzolino, P. J., Blackie, L. E. R., Rentzelas, P., Geeraert, N., & Meyers, L. S. (2012). *In Pursuit of

Existential Liberty: Differential Effects of Mortality Salience and Death Reflection on Desires for

Freedom*. Manuscript submitted for publication.

Cozzolino, P. J., Staples, A. D., Meyers, L. S., & Samboceti, J. (2004). Greed, death, and values:

From terror management to transcendence management theory. *Personality and Social

Psychology Bulletin*, *30*, 278-292.

Crowne, D. P., & Marlowe, D. (1960). A new scale of social desirability independent of

psychopathology. *Journal of Consulting Psychology, 24*, 349-354.

Duttweiler, P.C. (1984). The internal control index: A newly developed measure of locus of control. *Educational and Psychological Measurement, 44*, 209–21.

Ellison, C. W., & Paloutzian, R. F. (1982). *The spiritual well-being scale.* Nyack, NY: Life Advance.

Florian, V., & Mikulincer, M. (1998). Symbolic immortality and the management of the terror of death. *Journal of Personality and Social Psychology*, *74*, 725-734.

Florian, V., & Mikulincer, M. (2004). A multifaceted perspective on the existential meanings, manifestations, and consequences of the fear of personal death. In J. Greenberg, S. L. Koole & T. Pyszcynski (Eds.), *Handbook of Experimental Existential Psychology* (pp. 54-70). New York: Guilford Press.

Forster, E. M. (1910). *Howard's End.* London: Edward Arnold.

Frias, A., Watkins, P. C., Webber, A. C., & Froh, J. J. (2011). Death and gratitude: Death reflection enhances gratitude. *The Journal of Positive Psychology*, *6*, 154–162.

Gough, H.G. (1987) *California Psychological Inventory Administrator's Guide.* Palo Alto, CA: Consulting Psychologists Press, Inc.

Greenberg, J., Pyszczynski, T. & Solomon, S. (1986). The causes and consequences of the need for self-esteem: A terror management theory. In R. F. Baumeister (Ed.), *Public self and private self* (pp. 189–212). New York: Springer-Verlag.

Judge, T. A., Erez, A., Bono, J. E., & Thoresen, C. J. (2002). Are measures of self-esteem, neuroticism, locus of control, and generalized self-efficacy indicators of a common core construct? *Journal of Personality and Social Psychology*, *83*, 693-710.

Kübler-Ross, E. (1969). *On death and dying.* New York, NY: Macmillan.

Lewandowski, G. W., Jr., Nardone, N., & Raines, A. J. (2010). The role of self-concept clarity in relationship quality. *Self and Identity*, *9*, 416-433.

Noyes, R. (1980). Attitude change following near-death experiences. *Psychiatry*, *43*, 234-242.

Ring, K., & Elsaesser Valarino, E. (1998). *Lessons from the light: What we can learn from the near-death experience.* Massachusetts: Perseus.

Rosenberg, M. 1965. *Society and the Adolescent Self-Image.* Princeton, New Jersey: Princeton University Press.

Tuck, I., McCain, N., & Elswick, R. K. (2001). Spirituality and psychosocial factors in persons living with HIV. *Journal of Advanced Nursing, 33*, 776-783.

Weiser, N. L., & Meyers, L. S. (1993). Validity and reliability of the revised California psychological inventory's vector 3 scale. *Educational and Psychological Measurement*, *53*, 1045-1054.

Wong, T. P., Reker, G. T., & Gesser, G. (1994). Death attitude profile-revised: A multidimensional measure of attitudes toward death. In R. A. Neimeyer (Ed.), *Death anxiety handbook: Research, Instrumentation, and application* (pp. 121-146). Washington, DC: Taylor & Francis.

Wong, T. P., & Tomer, A. (2011). Beyond terror and denial: The positive psychology of death acceptance. *Death Studies*, *35,* 99-106.

Figure Caption

Figure 1. Positive components of the self as a function of death fear and death avoidance (controlling for social desirability). Points plotted at ± 1 *SD* of mean. Components of self = self-esteem, self-concept clarity, self-realization, existential well-being, and internal locus of control.