

Research Report

OF WEALTH AND DEATH: Materialism, Mortality Salience, and Consumption Behavior

Tim Kasser¹ and Kennon M. Sheldon²

¹Knox College and ²University of Missouri—Columbia

Abstract—*Theoretical work suggests that feelings of insecurity produce materialistic behavior, but most empirical evidence is correlational in nature. We therefore experimentally activated feelings of insecurity by having some subjects write short essays about death (mortality-salience condition). In Study 1, subjects in the mortality-salience condition, compared with subjects who wrote about a neutral topic, had higher financial expectations for themselves 15 years in the future, in terms of both their overall worth and the amount they would be spending on pleasurable items such as clothing and entertainment. Study 2 extended these findings by demonstrating that subjects exposed to death became more greedy and consumed more resources in a forest-management game. Results are discussed with regard to humanistic and terror-management theories of materialism.*

But the fear of death grew ever darker upon them, and . . . those that lived turned the more eagerly to pleasure and revelry, desiring ever more goods and more riches.

—Tolkien (1977, pp. 328–329)

Theorists from humanistic, existential, and organismic traditions have long suggested that people highly focused on making money and consuming resources suffer from an underlying feeling of insecurity. For example, humanistic and existential theorists such as Fromm (1976), Maslow (1954), and Rogers (1964) believed that when parents fail to provide safe, nurturing environments, children develop feelings of insecurity that may manifest themselves through strong desires for wealth and possessions. Similarly, Deci and Ryan (1991) suggested that when individuals fail to have their psychological needs met, they compensate by focusing on extrinsic rewards for fame and money.

Some research supports these ideas. For example, materialistic values in adolescents are positively correlated with being raised by a cold, controlling mother (Kasser, Ryan, Zax, & Sameroff, 1995) and experiencing divorce in one's family (Rindfleisch, Burroughs, & Denton, 1997). Cross-cultural research also demonstrates that conditions, such as poverty, that breed insecurity in nations are associated with a strong focus on materialistic values (Abramson & Inglehart, 1995). Themes of insecurity are also evident in qualitative analyses of materialists' dreams. Compared with people who do not highly value wealth and possessions, materialists are more likely to have dreams that involve falling, an inability to overcome danger, and images of death (Kasser & Grow Kasser, 2000).

Fear of death is at the heart of another organismic theory which agrees that materialistic behavior is associated with feelings of insecurity. Specifically, terror-management theory (TMT; Pyszczynski, Greenberg, & Solomon, 1997) holds that in order to cope with the overwhelming anxiety resulting from the realization of one's inevitable demise, people believe in cultural worldviews that help them feel

that they have meaningful lives and are worthy members of their culture. Substantial research documents that after being reminded of their own death, individuals become more likely to punish those who disagree with and reward those who uphold their worldview (Greenberg et al., 1990) and to be reluctant to use culturally significant icons (such as crosses and flags) in inappropriate ways (Greenberg, Porteus, Simon, Pyszczynski, & Solomon, 1995), among other things. Because capitalist cultures tout wealth and the consumption of goods as paths to a successful and happy life, TMT predicts that after experiencing a mortality-salience induction, members of such cultures will increase their materialistic pursuits as a way of bolstering this worldview and their belief that they are worthy people within this ideological framework.

The mortality-salience methodology deriving from TMT seemed a promising way to experimentally activate the feelings of insecurity that may underlie materialistic and consummatory pursuits. In order to operationalize such pursuits, in Study 1 we asked college students about their financial expectations projected 15 years in the future (e.g., salaries, worth of their homes); in Study 2 we asked students to play a forest-management game and assessed how much they wished to harvest, as well as their subjective motivations for consuming. Our measures thus tapped two distinct aspects of the capitalist cultural worldview, which says that making a great deal of money (Study 1) and consuming many resources (Studies 1 and 2) are pathways to a meaningful life.

We predicted that, in both studies, students who wrote essays about death would become more focused on the accumulation of wealth and possessions than would students who wrote about a neutral topic. However, because mortality salience might affect only individuals who value materialistic pursuits more highly than other goals, we also measured subjects' preexisting extrinsic-value orientation (Kasser & Ryan, 1996; Sheldon & McGregor, in press). This measure reflected how much subjects were oriented toward goals such as wealth, status, and attractiveness in comparison with values such as self-acceptance, affiliation, and community feeling (see Kasser, 2000). Thus, we could examine whether subjects' values moderated the hypothesized effects of mortality salience on their financial expectations and consummatory behavior; we made no predictions about these interactions, however.

STUDY 1

Subjects and Procedures

Sixty students (21 male, 39 female) at a small Midwestern college received extra credit in their introductory psychology classes for completing several surveys, including the ones relevant to the present research. The short survey packet for the present study contained the following measures.

To measure their preexisting materialistic orientation, we asked subjects to write down the six "personal strivings" (Emmons, 1986)

Address correspondence to Tim Kasser, Department of Psychology, Knox College, Galesburg, IL 61401; e-mail: tkasser@knox.edu.

Table 1. Mean financial expectations and consumption behavior of subjects in Studies 1 and 2

Outcome	Condition		<i>t</i> test
	Mortality-salience	Control	
Study 1			
Overall worth	0.13 (0.94)	-0.23 (0.38)	$t(44.5) = 1.99, p = .05$
Pleasure spending	0.22 (0.96)	-0.27 (0.61)	$t(52.8) = 2.30, p = .02$
Possessions	-0.05 (0.55)	-0.03 (0.95)	$t(34.7) = -0.13, p = .89$
Study 2			
Greed	5.50 (1.40)	4.65 (1.44)	$t(71) = 2.56, p = .01$
Fear	4.37 (1.94)	4.68 (1.55)	$t(71) = 0.83, p = .41$
Year 1 bid	61.97 (25.36)	49.30 (25.52)	$t(71) = 2.13, p = .04$

Note. Standard deviations are given in parentheses. In Study 1, *t* tests for unequal variances were conducted.

that best characterized what they were “typically trying to do in their everyday life.” Subjects then used a 9-point scale to rate how much success at each striving would aid in reaching six different “possible futures” (Sheldon & Kasser, 1995, 1998), which included self-acceptance/personal growth, affiliation, community feeling, an attractive appearance, social recognition, and financial success. For example, some subjects might report that “losing weight” is a common striving for them; they would then rate how much this striving helps bring about each of the six possible futures. Presumably, such subjects would indicate that losing weight aids reaching the possible future of attractiveness more than it aids reaching the possible future of community contribution.

Substantial research documents that of the six possible futures listed, the first three (intrinsic) goal pursuits are associated with the satisfaction of psychological needs, whereas the latter three (extrinsic) goal pursuits are associated with the attainment of rewards, high status, and praise (see Kasser, 2000). On the basis of past research (e.g., Kasser & Ryan, in press; Sheldon & McGregor, in press), a *relative extrinsic orientation* score was computed for each subject by subtracting the ratings for the three intrinsic possible futures from the ratings of the three extrinsic possible futures; a high score thus reflects a stronger focus on materialistic pursuits.

After completing several filler surveys, subjects were randomly assigned to respond to one of two sets of essay questions, based on TMT’s mortality-salience manipulation (Greenberg et al., 1990). Half the subjects were asked to write about feelings and thoughts they had concerning their own death (mortality-salience condition), whereas the others wrote about their thoughts and feelings regarding listening to music (control condition).¹

After completing another filler survey, all subjects were asked to think 15 years in the future and answer questions about their expected financial status at that time. Subjects were asked to report, in today’s dollars, their expectations about their own salary, their spouse’s salary, the worth of their home, the value of the possessions in their home, the worth of their vehicles, the amount they would spend each year on travel, their entertainment and leisure expenses, their clothing

expenses, and the worth of their investments.² Factor analyses with varimax rotation of these nine financial expectations yielded a three-factor solution, accounting for 73% of the variance. The first factor, which we labeled *Overall Financial Worth*, was composed of subjects’ expectations about their own salary and that of their spouse, the worth of their home, the worth of their investments, and the amount they would be spending on travel. The second factor, labeled *Pleasure Spending*, was composed of the amount subjects expected to spend on clothing, entertainment, and leisure activities. Finally, the third factor, labeled *Value of Possessions*, was composed of the expected worth of subjects’ vehicles and the possessions in their homes. Three summary financial-expectation variables were formed on the basis of this factor analysis by standardizing the expectation variables and averaging the appropriate ratings.

Results

First, we examined whether the mortality-salience manipulation affected subjects’ financial expectations. As can be seen in Table 1, compared with subjects who wrote essays about music, subjects who wrote about death expected to be worth more overall and expected to spend more money on pleasure items; no effects were found for the value-of-possessions variable.

To explore whether subjects’ preexisting value orientations were related to their financial expectations, we correlated the relative-extrinsic-orientation variable with the three outcomes. None of these analyses reached significance (all $ps > .31$). Additionally, we conducted hierarchical regressions in which a term coding the interaction of group (i.e., mortality-salience or control) and value orientation was entered after the main effects of the mortality-salience manipulation; these analyses yielded no evidence that value orientation moderated the effects of mortality salience on financial expectations (all $ps > .32$).

STUDY 2

Subjects and Procedures

Subjects included 73 first-year students (35 male, 38 female) in an introductory psychology class at a large Midwestern university.

1. TMT studies often use “watching television” for their control condition, but because television is a primary way consumer messages are propagated, we modified their instructions.

2. Three subjects were dropped from all analyses because their salary expectations were more than 15 standard deviations above this sample’s mean.

Materialism and Mortality

They received extra course credit for completing survey packets containing measures of the main variables of interest and several filler questionnaires.

Relative extrinsic orientation was measured in this study by using the Aspiration Index (Kasser & Ryan, 1996), which assesses the same six types of goals included in Study 1. Subjects were presented with 30 different goals and asked to rate how important each one was to them on a scale from 1 (*not at all*) to 5 (*very much*). As in Study 1, the importance placed on self-acceptance, community feeling, and affiliation aspirations was subtracted from the importance placed on financial success, social recognition, and appearance aspirations to assess the relative importance subjects placed on extrinsic pursuits.

After completing several filler surveys, subjects were randomly assigned to write essays about either their own death or music. They then participated in a forest-management game, which was essentially a one-time resource dilemma (see Sheldon & McGregor, in press, Study 1). Subjects were told to imagine that they owned a company that had to bid against three other companies to harvest timber in a national forest. They were told both the benefits and the problems associated with making either large or small bids, and were reminded that the forest might disappear if companies continually made large bids. Next, subjects used a scale from 1 (*not at all*) to 7 (*very much*) to rate how much they would like to profit more than the other companies and how much they expected other companies to try to cut large amounts each year. By this means, we assessed whether *greed* or *fear*, respectively, primarily motivated subjects' decisions. Finally, subjects reported how many of the 100 available forested acres they would harvest in their *Year 1 bid*.

Results

As reported in the bottom half of Table 1, mortality salience significantly affected two aspects of subjects' consumption ratings. Subjects in the mortality-salience condition were more likely than control subjects to evidence strong greed, though no effects on fear were noted. Further, subjects in the mortality-salience condition also wanted to harvest 12 to 13 more acres of forest, on average, than did subjects in the control condition, a significant difference.

Next, we correlated the extrinsic-orientation score with the dependent variables. These results replicated previous work (Sheldon & McGregor, in press): Extrinsic-value orientation was associated with increased Year 1 bid ($r = .20, p = .09$) and greed ($r = .32, p < .01$), but was not associated with fear ($r = .02, n.s.$).

Finally, we examined, via regression analyses, whether the effects of mortality salience were moderated by subjects' preexisting value orientation. No significant interactions between materialistic orientation and mortality salience were observed for either greed or Year 1 bid (both $ps > .74$).

GENERAL DISCUSSION

The connection between feelings of insecurity and materialistic behavior has been noted by many theorists who subscribe to a need-based perspective on goals and values (Abramson & Inglehart, 1995; Deci & Ryan, 1991; Fromm, 1976; Maslow, 1954; Rogers, 1964), but, to our knowledge, no experimental evidence has substantiated these claims. We therefore set out to activate feelings of insecurity by making personal mortality salient (Pyszczynski et al., 1997) to some

of our subjects before assessing their financial expectations and consummatory behavior. In two studies, death-based feelings of insecurity contributed to materialistic desires and behaviors.

Specifically, Study 1 subjects who wrote about their own death had significantly higher financial expectations for 15 years in the future than did individuals in the control condition. In other words, individuals whose insecurity was primed expected higher salaries for themselves and their spouses, more expensive homes, and more investments. Further, they expected to spend more on clothes, entertainment, and travel. Study 2 extended the findings regarding the effects of mortality salience on consumption behavior by demonstrating that individuals who first wrote about death made significantly higher bids for harvesting timber than did control subjects. Interestingly, the results suggested that mortality salience particularly enhanced feelings of greed, or the desire to acquire more than other people. In neither study did the effects of mortality salience depend on subjects' preexisting value orientation; instead, regardless of their values, subjects became more materialistic and consumption-oriented after writing about death.

Notably, the basic results from these studies are consistent with both humanistic and terror-management perspectives. These theories agree that individuals may engage in the culturally sanctioned pursuit of amassing wealth, possessions, and resources as a way to overcome feelings of insecurity and feel good about themselves. Although our experimental manipulation derives directly from TMT, we believe that making mortality salient is nonetheless relevant to humanistic notions of security. For example, Maslow (1954) believed that security and safety needs concern an avoidance of harm and danger, concepts surely associated with death. Further, nonnurturant parenting has been suggested to be associated with a sense of self-negation (Laing, 1960; Laing & Esterson, 1964) in which the child may begin to question his or her own existence; such a sense of self-negation may be parallel to the feelings of terror brought on by contemplating one's own death.

Future research examining relationships between insecurity and materialism could correct for several weaknesses of the present studies. For example, operationalizations of the materialism and consumption variables relied on imaginary scenarios in both studies, limiting their validity; it would be interesting to see whether mortality salience can also influence more concrete and externally valid consumption behaviors. Cross-cultural work with samples other than U.S. college students is also called for to see if results generalize to other, perhaps less materialistic, cultures. In addition, it is necessary to determine whether other types of threat, such as recalling painful memories, might also increase materialistic and consumption behavior; much work arising from TMT suggests such effects should be specific to mortality (Pyszczynski et al., 1997). Finally, we did not examine whether mortality salience raises expectations in the financial domain only; other research should examine whether thinking about death increases people's expectations for the future more generally.

CONCLUSION

In the contemporary world, capitalistic economic systems and their accompanying "culture of consumption" are quickly expanding into "developing markets" around the globe. With these systems come ideologies that suggest to individuals that they are worthy members of their cultures to the extent that they make a great deal of money and

spend that money on consumer goods. The “dark side” to such a value system, however, is that the strong valuing of wealth and possessions is associated with lower well-being, worse interpersonal relationships, and a lower quality of life (Belk, 1985; Carver & Baird, 1998; Kasser & Ryan, 1993, 1996, in press; Richins & Dawson, 1992; Sirgy, 1998). Further, a materialistic value orientation is associated with less socially productive and more antisocial behavior (Cohen & Cohen, 1995; Kasser & Ryan, 1993) and a tendency to quickly deplete scarce resources (Sheldon & McGregor, in press), thus affecting everyone’s quality of life. The gloomy conclusion arising from the current study is that people’s tendencies toward materialism and consumption stem in part from a source unlikely to disappear: the fear of death. It remains to be seen whether psychological research can discover effective ways of helping people find more adaptive and beneficial means of coping with their insecurities than “desiring ever more goods and more riches” (Tolkien, 1977).

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REFERENCES

- Abramson, P.R., & Inglehart, R. (1995). *Value change in global perspective*. Ann Arbor: University of Michigan Press.
- Belk, R.W. (1985). Materialism: Trait aspects of living in the material world. *Journal of Consumer Research*, *12*, 265–280.
- Carver, C.S., & Baird, E. (1998). The American dream revisited: Is it what you want or why you want it that matters? *Psychological Science*, *9*, 289–292.
- Cohen, P., & Cohen, J. (1995). *Life values and adolescent mental health*. Mahwah, NJ: Erlbaum.
- Deci, E.L., & Ryan, R.M. (1991). A motivational approach to self: Integration in personality. In R. Dienstbier (Ed.), *Nebraska Symposium on Motivation: Vol. 38. Perspectives on motivation* (pp. 237–288). Lincoln: University of Nebraska Press.
- Emmons, R.A. (1986). Personal strivings: An approach to personality and subjective well-being. *Journal of Personality and Social Psychology*, *51*, 1058–1068.
- Fromm, E. (1976). *To have or to be?* New York: Harper & Row.
- Greenberg, J., Porteus, J., Simon, L., Pyszczynski, T., & Solomon, S. (1995). Evidence of a terror management function of cultural icons: The effects of mortality salience on the inappropriate use of cherished cultural symbols. *Personality and Social Psychology Bulletin*, *21*, 1221–1228.
- 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 reactions to those who threaten or bolster the cultural worldview. *Journal of Personality and Social Psychology*, *58*, 308–318.
- Kasser, T. (2000). Two versions of the American dream: Which goals and values make for a high quality of life? In E. Diener & D. Rahtz (Eds.), *Advances in quality of life theory and research, Volume 1* (pp. 3–12). Dordrecht, The Netherlands: Kluwer.
- Kasser, T., & Grow Kasser, V. (2000). *The dreams of people high and low in materialism*. Manuscript submitted for publication.
- Kasser, T., & Ryan, R.M. (1993). A dark side of the American dream: Correlates of financial success as a central life aspiration. *Journal of Personality and Social Psychology*, *65*, 410–422.
- Kasser, T., & Ryan, R.M. (1996). Further examining the American dream: Differential correlates of intrinsic and extrinsic goals. *Personality and Social Psychology Bulletin*, *22*, 280–287.
- Kasser, T., & Ryan, R.M. (in press). Be careful what you wish for: Optimal functioning and the relative attainment of intrinsic and extrinsic goals. In P. Schmuck & K.M. Sheldon (Eds.), *Life goals and well-being*. Lengerich, Germany: Pabst Science Publishers.
- Kasser, T., Ryan, R.M., Zax, M., & Sameroff, A.J. (1995). The relations of maternal and social environments to late adolescents’ materialistic and prosocial aspirations. *Developmental Psychology*, *31*, 907–914.
- Laing, R.D. (1960). *The divided self*. New York: Pantheon Books.
- Laing, R.D., & Esterson, A. (1964). *Sanity, madness, and the family*. New York: Penguin Books.
- Maslow, A.H. (1954). *Motivation and personality*. New York: Harper & Row.
- Pyszczynski, T., Greenberg, J., & Solomon, S. (1997). Why do we need what we need? A terror management perspective on the roots of human social motivation. *Psychological Inquiry*, *8*, 1–20.
- Richins, M.L., & Dawson, S. (1992). A consumer values orientation for materialism and its measurement: Scale development and validation. *Journal of Consumer Research*, *19*, 303–316.
- Rindfleisch, A., Burroughs, J.E., & Denton, F. (1997). Family structure, materialism, and compulsive consumption. *Journal of Consumer Research*, *23*, 312–325.
- Rogers, C.R. (1964). Toward a modern approach to values: The valuing process in the mature person. *Journal of Abnormal and Social Psychology*, *68*, 160–167.
- Sheldon, K.M., & Kasser, T. (1995). Coherence and congruence: Two aspects of personality integration. *Journal of Personality and Social Psychology*, *68*, 531–543.
- Sheldon, K.M., & Kasser, T. (1998). Pursuing personal goals: Skills enable progress, but not all progress is beneficial. *Personality and Social Psychology Bulletin*, *24*, 1319–1331.
- Sheldon, K.M., & McGregor, H.A. (in press). Extrinsic value orientation and “the tragedy of the commons.” *Journal of Personality*.
- Sirgy, M.J. (1998). Materialism and quality of life. *Social Indicators Research*, *43*, 227–260.
- Tolkien, J.R.R. (1977). *The Silmarillion*. New York: Basic Books.

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