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Viewing Death on Television Increases the Appeal of Advertised Products

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Abstract

References to death abound in many television programs accessible to most people. Terror Management Theory (TMT) postulates that existential anxiety, which death reminders activate, may reinforce materialistic tendencies. The current paper explores the effect of a death reminder in television shows on the desirability of advertised products. Consistent with TMT's predictions, in two studies participants show greater desire for products, which were advertised immediately following clips from programs that featured a death scene, compared with programs that did not. Cognitive accessibility of death predicted the appeal difference while changes in affect or interest in the show did not. The findings are discussed in light on affective and existential theories which make opposite predictions. Implications and future directions are considered.

Keywords

Death; Advertising; Materialism; Terror Management Theory; Television

The average American watches 4.5 hours of television a day (Nielsen, 2005). One prominently featured theme is death (DeSpelder & Strickland, 2002; Huston et al., 1992). The present studies examine the psychological effects of viewing death content on viewers' materialism. One perspective suggests that viewing death related content increases negative affect and decreases positive affect, leading to a reduced desire to consume (e.g., Bower, 1981). There is some empirical evidence supporting this conclusion (e.g., Brown, Homer, & Inman, 1998). However, others suggest that reflections on death actually increase materialistic tendencies (e.g., Arndt, Solomon, Kasser, & Sheldon, 2004).

Although people's affective reactions to death vary considerably; in the West death is mostly perceived a sad event (Spilka Stout, Minton, & Sizemore, 1977). Thus, exposure to televised portrayals of death potentially increases negative affect and decreases positive affect. Earlier conceptualizations assumed such affective changes must lead to more negative attitudes towards associated products. Two relevant theoretical accounts are the feeling-as-information hypothesis (Schwarz, 1990; Schwarz & Clore, 1983) and the mood-congruency hypothesis (Bower, 1981). Although different in their proposed psychological mechanisms, both hypotheses anticipate similar consequences: positive affect facilitates positive appraisals of the environment (e.g., increasing product desirability), whereas negative affect facilitates negative appraisals of the environment (e.g., decreasing product desirability). Empirical support was found for both the feeling-as-information (e.g., Pham, 1998) and mood-congruency (Goldberg & Gorn, 1987) hypotheses. Perhaps most relevant, a film presentation about Nazi war crimes induced negative affect and led to increased

negative evaluations of featured products compared with a neutral valence presentation (Axelrod, 1963).

The affect-focused reasoning leads to the prediction that to the extent that death on television increases negative affect and reduces positive affect, products advertised during such programs will be evaluated more negatively compared with products advertised in programs devoid of death. However, recent research demonstrated positive associations between reflections on death and increased materialistic tendencies (e.g., Kasser & Kasser, 2001). Moreover, both theoretical accounts (Arndt et al., 2004; Solomon, Greenberg, & Pyszczynski, 2004) and experimental research (e.g., Mandel & Heine, 1999) suggest that thoughts about death may heighten materialism and consequently increase products' appeal.

Terror Management Theory (TMT: Greenberg, Pyszczynski, & Solomon, 1986; Pyszczynski, Greenberg, Solomon, Arndt, & Schimel, 2004) contends that thought of death induce an unconscious anxiety so consuming, it can lead to functional paralysis. To overcome this paralysis the theory argues people developed two intertwined psychological mechanisms: self esteem and cultural worldview defense. TMT defines self-esteem as “a sense of personal value that is obtained by believing (a) in the validity of one's cultural worldview and (b) that one is living up to the standards that are part of that worldview” (Pyszczynski et al., 2004, pp. 436–7). These mechanisms provide a buffer against terrifying existential cognitions by eliciting a sense of symbolic or literal immortality for those who perceive themselves to live up to their culturally prescribed standards.

Much research demonstrates that reminders of death lead to self-esteem striving and worldview defense. In over 200 empirical, peer-reviewed articles, these effects were observed in diverse cultures such as Australian Aboriginals (Salzman & Halloran, 2004), East Asians (e.g., Heine, Harihara, & Niiya, 2002), Europeans (e.g., Jonas, Fritzsche, & Greenberg, 2005) and North Americans (e.g., Norenzayan, Dar-Nimrod, Hansen, & Proulx, 2009), affecting a wide variety of outcome measures from ingroup perceptions (Greenberg & Kosloff, 2008) through creativity (e.g., Routledge & Arndt, 2010) to test performance (Landau, Greenberg, & Rothschild, 2010). Importantly, mortality reminders have been shown to affect materialistic outcomes (e.g., Mandel & Heine, 1999).

Materialism and the possession of material goods have long been seen as a fundamental part of the American value system (Fromm, 1976) as well as other cultural systems (e.g., Wong & Ahuvia, 1998). An increase in one's striving for self-esteem should therefore enhance the appeal of materialistic goods. Empirical studies have provided support for this prediction. For example, people who scored high on measures of materialism were more likely to report dreaming about death (Kasser & Kasser, 2001) and a positive association was found between death concerns and materialism (Christopher, Drummond, Jones, Marek, & Theriault, 2006). Experimentally, participants who were primed with the concept of death estimated spending more money on material goods in the future (Kasser & Sheldon, 2000, Study 1) and showed increased greed (Study 2) compared with participants who were primed with a different concept.

According to Arndt et al. (2004), TMT converges with other theories in its assessment that self worth can be contingent on material goods as long as one's culture endorses such contingency. Furthermore, mortality salience can exacerbate materialism and conspicuous consumerism as they provide a person with a manner to manage existential anxiety by adherence to perceived cultural prescriptions. Arndt et al. singled out the media in general and television in particular as a constant source of death reminders. This focus is not devoid of merit as the average American child was estimated to have watched 8,000 murders on television by the time s/he completes elementary school (Huston et al., 1992). Exposure to

televised death scenes increases as the child grows older and gains access to a wider range of programs. Indeed, in a typical weekly issue of the *TV Guide*, about a third of the programs listed feature some content related to death or dying (DeSpelder & Strickland, 2002).

Arndt et al. (2004) provided a strong rationale for the potential role of television-featured death on viewers' materialistic tendencies. However, this empirical claim had never been tested. To address this lacuna, in two studies I examined the effects of televised death portrayals on the desirability of advertised goods.

Study 1

Method

Participants—One hundred and seven (74 females, 33 males) students from a Canadian university participated in a study for partial credit in their psychology courses.

Materials

Manipulations: Two clips (~10 minutes) from award-winning television dramas (*The West Wing* and *Six Feet Under*) were shown on the 14" screen of a Macintosh laptop computer. The *West Wing* clip was devoid of any reference to death (control condition). The *Six Feet Under* clip (experimental condition) began with a scene featuring the death of an infant from Sudden Infant Death Syndrome (SIDS), followed by a few minutes in which death was not salient. This delay was incorporated to allow thoughts about death to seep below consciousness in line with TMT's experimental methodology (the full rationale for this delay is provided by Greenberg, Arndt, Simon, Pyszczynski, & Solomon, 1994).

Consumer product advertisements: Eight commercials for known products, BMW and Mercedes vehicles, Kia and Hyundai vehicles, McDonalds and Burger King restaurants, Tommy Hilfiger and Diesel jeans, were obtained from <http://www.visit4info.com>, a British website which offers downloadable commercials for research purposes. The commercials were chosen to reflect pairs of equivalent products of varying status. This equivalence of status within each pair and variability between different pairs were confirmed in a pilot study that showed significant high status associated with the German cars and jeans and lower status associated with the Korean cars and fast food restaurants. The eight commercials were divided into two blocks, each containing four equivalent products; for example, one block featured BMW and the other Mercedes, etc.

Clip evaluations: Participants rated the clips using 11-point scales to indicate how interesting, entertaining, and boring (reversed scored) they found the clips, as well as how much they wanted to watch the rest of the show. The responses were averaged into a single measure (Cronbach's α 's = .92–.94) representing participant interest in each show.

Product ratings: Participants rated the products' appeal using 11-point scales by responding to the following questions: (1) If you were thinking about buying (type of product, e.g., cars), how likely would you be to purchase (the particular advertised product, e.g., BMW)? (2) How much would you like to have (the advertised product)? (3) How much do you think the average Canadian would like to have (the advertised product)?

Affect: Participants' current mood was measured using the PANAS (Watson, Clark, & Tellegen, 1988), a twenty-item self-report measure to which participants respond on 5-point scales. Ten items assess positive affect and 10 items assess negative affect. Positive and negative affect were calculated separately. Three of the four administrations (2 scales x 2

administrations) showed adequate internal consistency (α 's ranged from .62 to .78) but one administration of the negative affect scale (following the control clip) showed low internal consistency ($\alpha = .40$).

Procedure—Participants were invited to take part in an experiment exploring the effects of various television programs on the effectiveness of commercials. After providing consent, participants watched the control clip followed by one of the two commercial blocks. Afterward participants completed the clip evaluations and PANAS. They were then asked to imagine they earned a comfortable salary and could afford to purchase the products they were evaluating, although buying one thing might mean giving up another. Participants then rated the four products featured in commercials.

Upon completion of the first stage of the experiment, participants were asked to view the experimental clip followed by the other (i.e., equivalent) commercial block.¹ Participants then completed a second administration of clip evaluations, PANAS, and product ratings. Upon conclusion of the second stage participants provided basic demographics information: age, sex, ethnicity, parental education, and parental income.

Results

Death and Appeal: The three ratings for each of the four products were summed separately for each show to assess the effects of show on products' appeal. Thus, two variables were constructed, each represents a composite of the sum of the 12 product ratings after watching each clip (control: $\alpha = .70$; experimental: $\alpha = .75$). The products advertised in a show that contained death were more appealing ($M = 71.29$, $SD = 16.22$) than products advertised in a show that did not contain death ($M = 65.62$, $SD = 14.22$; $t(106) = 4.23$, $p < .001$, $d = 0.41$).

To evaluate if any of the recorded changes predicted the change in products' appeal, a regression analysis was performed, predicting the change between products' ratings after watching each clip. The products' rating scores after the control clip were subtracted from products' rating scores after the experimental clip to create a variable of products' appeal difference. Difference-scores variables were created in the same manner for interest in the show, positive affect, and negative affect. A regression analysis ($R^2 = .09$, $F(3, 100) = 3.43$, $p = .02$) revealed that changes in interest² and positive affect³ did not significantly predict products' appeal changes ($| \beta \text{'s} | \leq .11$, $| t \text{'s} | < 1$, ns ; $| r \text{'s}_{\text{partial}} | < .09$). The differences between products' appeal after each clip were predicted only by differences in negative affect,⁴ ($\beta = -0.25$, $t = -2.44$, $p = .02$, $r_{\text{partial}} = -.24$). An increase in negative affect predicted a decrease in products' appeal; however, the low internal consistency in one of the administrations combined with the lack of actual significant differences for the negative affect between the shows limits strong inferences from this finding. Multicollinearity did seem to play a role in this analysis (tolerance .61).

¹The assignment of the blocks was counterbalanced between the different shows, so that roughly half the participants viewed the BMW commercial following the control clip, then the Mercedes commercial following the experimental clip, and vice versa.

²The experimental clip was evaluated as more interesting ($M = 6.24$, $SD = 2.24$) compared with the control clip ($M = 5.58$, $SD = 2.31$; $t(105) = 2.26$, $p = .03$, Cohen's $d = 0.22$). In addition, interest was associated with products' rating following the experimental clip ($r = .35$, $p < .001$), but not the control clip ($r = .09$, $p = .35$).

³Participants reported less positive affect after the experimental clip ($M = 1.93$, $SD = 0.57$) than after the control clip ($M = 2.19$, $SD = 0.56$; $t(106) = 5.74$, $p < .001$, $d = 1.12$). In addition, positive affect was associated with products' rating in the experimental condition ($r = .28$, $p = .003$), but not the control condition ($r = .15$, $p = .12$).

⁴No significant difference emerged with reports of negative affect (experimental: $M = 1.49$, $SD = 0.36$; control: $M = 1.53$, $SD = 0.27$; $t(106) = -1.52$, $p = .13$). In addition, negative affect was not associated with products' rating following the clips ($| t \text{'s} | < .13$, $p \text{'s} > .10$).

Discussion

The results of Study 1 provide initial support for the hypothesis that featuring death in a television program increases the appeal of advertised products. However, it should be noted that the two television programs featured different story lines, settings and other elements which may have produced the differences in products' appeal. One such difference was the level of interest in the program. The program, which featured death, was rated as more interesting. The interest in that show was associated with products' rating. However, changes in interest did not predict changes in products' appeal between the shows. Similarly, positive affect was associated with products' rating following the clip that featured death, but the changes in positive affect were not significantly related to changes in products' rating between the shows. Study 2 addresses these potential confounds as well as the specificity of the effect of death cognitions.

Study 2

The purpose of the second study was to replicate and extend the findings from Study 1. In addition to the measures incorporated in the first study, Study 2 also tested whether participants found death more cognitively accessible after watching a show in which it was featured. This greater cognitive accessibility of death was hypothesized to predict a change in products' appeal.

Method

Participants—One hundred and twenty students (81 females, 39 males) from a large Canadian university participated in the study in exchange for partial credit in psychology courses.

Materials

Manipulations: Two clips (~10 minutes) from award-winning, dramatic movies (*Forrest Gump* and *The Deer Hunter*) were obtained. The *Forrest Gump* clip (control condition) was devoid of any reference to death, whereas the *The Deer Hunter* clip (experimental condition) began with a scene featuring a violent death (Christopher Walken shoots himself playing Russian Roulette with Robert De-Niro), followed by a funeral and a few minutes in which death was less salient.

Consumer product advertisements: Similar to Study 1, 12 products representing a variety of goods (i.e., computers, electric shavers, contact lenses, instant coffee, jeans and shampoo) were obtained from <http://www.visit4info.com>. In this study, the commercials were divided into four blocks, each containing two sets of different combinations of four of the products. One block, for example, contained the following two commercial sets: (1) IBM computers, Garnier Fructis shampoo, Phillips electric shaver, Nescafe coffee; (2) Apple Computers, Dove shampoo, Guess jeans, Acuvue Contact Lenses. To reduce the suspicion, which might arise following the use of an entire set of equivalent products, one set in each block contained only two matched products to the other set in the same block (e.g., IBM and Apple computers are matched products in the exemplary block).

Clip evaluations: Same questions as Study 1, using 7-point scales for ratings. Responses were averaged into single measures (α 's were .89 and .91 for control and experimental conditions respectively).

Death theme accessibility: The cognitive accessibility of death theme's measure was adapted from an earlier version (Greenberg et al., 1994). Participants completed a set of word fragments following each clip (two sets total) by filling in missing letters. Six of the

fourteen words could be completed as either neutral or death-related words. For example, participants were given the letters __ RAVE and could complete the word as a neutral term *brave* or as the death-related term *grave*. The rest of the words served as fillers.

Affect: Participants' mood was again measured using the PANAS (Watson et al., 1988). The scales showed good internal consistency (α 's ranged from .85 to .87).

Product ratings: Product ratings were evaluated on 7-point scales using the same questions as Study 1, augmented by an additional evaluative question assessing perceived effectiveness of the commercials. The rating tasks for niche products were supplemented by instructions to consider them as products that one might buy for a relative or a partner (electric razors) or products that one might choose if necessary (contact lenses).

Design and procedure—The procedure was identical to Study 1 except for the following modifications: participants watched the clips on a 21" television set either individually or in groups (2–3 participants). Block counterbalancing was enforced again, however, because of the expansion of the number of blocks, each block was viewed by approximately a quarter of the participants.

Results

Death theme accessibility- manipulation check: A paired-sample t-test was used to explore accessibility of death cognitions. In the control condition participants filled in less word completions with death-related concepts ($M = 1.38$, $SD = 1.07$) than in the experimental condition ($M = 1.71$, $SD = 1.13$; $t(119) = 2.04$, $p = .04$, $d = 0.19$) suggesting death-related cognitions were more accessible after the show that featured death.

Death and Appeal: The four rating questions for all the featured products were averaged to create a composite separately for each product in each condition. The composite variables showed adequate internal consistency (α 's ranged from .69 to .90). The composite variables were averaged again across products for each clip to create the variables of products' appeal. The analysis indicates that in the experimental condition products were more appealing ($M = 4.18$, $SD = 0.92$) than in the control condition ($M = 3.86$, $SD = 0.78$; $t(119) = 3.24$, $p = .002$, $d = 0.30$). The number of people watching television together did not affect the results.

To assess the relationship between activation of death theme and products' appeal, the association between the death theme word completion measure and products' rating was examined separately for each show. As expected, the correlation between the death-related completions and products' rating was not significant in the control condition ($r = -.01$, $p = .91$), but was significant in the experimental condition ($r = .18$, $p < .05$).

To evaluate which of the recorded differences affected the change in products' appeal, I conducted a regression analysis predicting the difference between products' ratings. Similar to Study one I calculated the difference scores for products' rating, interest in the show, positive affect, negative affect, and death-related word completions. The regression analysis ($R^2 = .07$, $F(4, 110) = 2.06$, $p = .09$) revealed that changes in interest,⁵ positive affect, and negative affect⁶ did not significantly predict changes in products' appeal ($|\beta$'s $< .11$, $|t$'s

⁵Participants were more interested in the control clip ($M = 4.87$, $SD = 1.30$) than in the experimental clip ($M = 3.40$, $SD = 1.66$; $t(116) = 7.68$, $p < .001$, $d = 1.00$).

⁶Participants reported more negative affect ($M = 1.68$, $SD = .60$) and less positive affect ($M = 1.90$, $SD = 0.64$) in the experimental compared with the control condition (negative: $M = 1.38$, $SD = 0.50$, $t(117) = 7.09$, $p < .001$, $d = 0.68$; positive: $M = 2.31$, $SD = 0.66$, $t(117) = 7.36$, $p < .001$, $d = 0.70$).

1, ns ; $|r^2_{\text{partial}}| < .10$). The difference between products' appeal after each clip was predicted only by difference in death-related word completion ($\beta = 0.24$, $t = 2.57$, $p = .01$, $r^2_{\text{partial}} = .24$). Multicollinearity did seem to play a role in this analysis (tolerance = .66).

Discussion

The results of Study 2 replicate the results of Study 1 suggesting that viewing death on television increases the desire to consume. Validating the manipulation, participants showed increased accessibility of death-theme cognitions following a show in the experimental condition compared with the control condition. Most importantly, there was a positive association between products' appeal and accessibility of death cognitions when the concept "death" was activated. No such association was found following a show devoid of death. The abovementioned increase in death cognitions' accessibility predicted more positive evaluations of advertised products.

In Study 1, the experimental clip was rated as more interesting than the control. In Study 2, however, the control clip was rated as more interesting than the experimental. Nevertheless, the show that featured death, rather than the one rated as more interesting, increased products' appeal. This finding weakens the alternative explanation in which interest in the show, rather than portrayal of death, elevated products' appeal in Study 1.

Also, in Study 1 the changes in negative affect were predictive of the changes in products' appeal. However, in Study 2 no such relationship was observed. Although participants reported more negative and less positive affect following the show that featured death, these differences did not predict changes in products' appeal.

Study 2 provided an additional advantage-stronger ecological validity. Participants experienced a more natural television-watching environment, in which they viewed the clips on a real television set in a decorated room, in the company of a varying number of peers. These conditions allow a better generalization of the results to habitual television-watching practices.

General Discussion

In two studies, using different television programs, viewing environments, and consumer products, a clip that featured death elicited more desire for advertised products compared with a clip devoid of death. Furthermore, the concept of death was more accessible after watching a show featuring death, compared with watching a show devoid of death (Study 2). The findings in also suggest that following the activation of the death theme, the accessibility of death cognitions was positively associated with products' appeal (Study 2). Lastly, providing the most unequivocal support for the main hypothesis, change in death theme cognitive accessibility predicted an increase in products' appeal between the clips.

Explicit portrayals of death on television may elicit proximal defenses such as seeking distractions or seeking ways of reducing one's vulnerability (Arndt et al., 2004). However, to the extent that thoughts about death become non-conscious, they activate distal defense mechanisms-self-esteem striving and worldview defense (Arndt et al.). These anxiety maintenance mechanisms may reinforce materialistic tendencies in order to reduce the unconscious death anxiety. The present studies provided support for the second part of this model.

These studies possess some limitations. One methodological limitation arises from the use of a repeated-measure design. Such a design offers significant advantages in controlling for spurious variables and potential alternative explanations rooted in assignment to conditions

and individual differences. Because of issues related to the longevity of manipulated non-conscious death cognitions, which may last for a while (Sheldon Solomon, personal communication), both studies featured the non-death clip first and the death clip second without counterbalancing, thus the potential order effect can not be ruled out. However, research seems to suggest that there is no reason to expect a serial order effect (Rossiter & Percy, 1987) or that earlier rather than later advertised products have greater appeal (Zhao, 1997).

Another limitation arises from the use of clips which differed in more than just whether they depicted a death or not. The use of actual clips increases the ecological validity of the studies but it also limits our ability to attribute the changes in products' appeal to the presence of a death scene unequivocally. To address this shortcoming, potential alternative elements- interest in the show and affect- were measured and tested as potential predictors of products' appeal. The results did not provide support for the alternative explanations, in which these variables, rather than the concept of death, led to an increase in products' appeal following a show that contained death. On the other hand, cognitive activation of death was shown to correlate with products' appeal only when the clip featured death (Study 2). Furthermore, the increase in products' appeal was predicted by the change in the accessibility of death between the clips. These findings strongly suggest that it was the depiction of death that led to increased materialism rather than other unmeasured differences between the clips.

A more substantial limitation arises from the nature of the depiction of death. Television depicts death in a wide range of forms, with varying levels of detail. News programs might discuss fatalities in an ongoing war, natural disasters, or violent crimes; television dramas may elaborate on the individual person before his or her death and pay more attention to the dying process; action movies often treat death casually as part of a plot line in which people become inconveniences; and horror films typically focus on the visual effects involving much blood and gore. Given such varied presentations of death, some researchers argue that certain programs contribute to accurate and beneficial understanding of the phenomenon, while other programs do not (DeSpelder & Strickland, 2002; Schiappa, Gregg, & Hewes 2004). The same argument applies to the present studies: not every death featured on television will necessarily increase the appeal of advertised products (Axelrod, 1963).

The clips that were chosen for the present studies were selected based on a six-person panel's assessment that the death scenes depicted would facilitate viewers' reflections on their own impending death, and would therefore generate similar reactions to traditional TMT's manipulations of mortality salience. However, more systematic research is needed to evaluate the boundary conditions for the kind of death portrayals which elicit increased materialism. For example, self-reported media exposure to a single death (e.g., Princess Diana, JFK Jr.) were found to be associated with unconscious death anxiety, whereas self-reported media exposure to group death (e.g., the Columbine shooting, the 1989 LA earthquake) were associated with both conscious and unconscious death anxiety (King & Hayslip, 2002). Thus, group versus single death portrayals offer one testable boundary condition. Other potentially relevant elements in the death portrayals may be the role of the deceased (focal vs. peripheral character) or the extent to which the death portrayal violates existing meaning frameworks (Heine, Proulx, & Vohs, 2006).

The present findings suggest that the extremely high prevalence of death on television favors the cultivation of materialistic tendencies. Considerable research demonstrates that materialistic values have deleterious effects on both individuals and societies (e.g., Burroughs, Shrum, & Rindfleisch, 2002; Kasser, 2002). The nature of the observed phenomenon, in which unconscious cognitions facilitate an increase in materialism, makes

media literacy programs (Kubey, 1997) less likely to be able to counter the demonstrated effect, since such programs rely on conscious processes. More comprehensive and overt education about death (e.g., Rinpoche, 1995) may provide the most promising means to meet this evolving challenge.

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