A Body of Terror: Denial of Death and the Creaturely Body

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The fear of death weighs heavily on the human psyche. But, as Ernest Becker (1973) posited, and as research on terror management theory (TMT; see e.g., Solomon, Greenberg, & Pyszczynski, 2004) has empirically validated, people manage the potential for terror associated with death by immersing themselves in a symbolic, cultural world imbued with meaning, where they matter. In the arts, sports, one’s career, parenthood, friendship, love, fame, charity, and of course, religion, people find meaning and prescriptions for personal value. In this way, people live their lives in a symbolic, cultural realm that extends beyond them as individuals and their inevitably doomed existence. In religion, or spirituality, too, people find an even more literal solution; death is less of a problem to the extent that it does not represent the end of existence (a.k.a., there is life after death). By these means, people symbolically, or even quite literally, manage the threat of death, and thereby obtain some measure of psychological equanimity.

But alas, there is a flaw in this system of defense against the problem of human mortality. It is not just the physical reality of death that people must guard against. That’s easy, in a sense, for death is a reality only once for each person. One can deny, deny, deny; and only at the very end, or during a close encounter, be forced to reckon with the truth of their mortal nature. But the body – the bleeding, stinking body – offers a constant reminder of humankind’s physical, and – by virtue of this – mortal, nature. Herein resides the problem, the contradiction of being “Gods with anuses” as Becker (1973, p. 51) so aptly put it. Human beings are caught in a perpetual struggle between, on one hand, the need to deny mortality with symbolic, cultural, or spiritual, solutions; and on the other, reminders that they are flesh and blood creatures with animalistic needs and desires, and therefore as definitively mortal as any other animal.
It follows that people will distance from the physicality of the body by concealing its more creaturely aspects or by imbuing the physical body with symbolic significance. Moreover, these reactions should be exacerbated when existential concerns are pressing, and the salience of the physical body should interfere with defenses against fear of death. I will discuss research testing these hypotheses, shedding light on discomfort with, and inhibitions surrounding, the body; the condemnation and objectification of women’s bodies, in particular; and, finally, on the desire and ability to believe in life after death. I conclude with a discussion of questions that remain, highlighting directions for future inquiry.

A Body of Terror

“We are born between urine and faeces,” Sigmund Freud wrote (1930/1969), and indeed, from his perspective, development of the person, or personality, is rooted in this recognition (i.e., anal stage of development), and, from then on, the ongoing struggle between humankind’s animal nature (i.e., the id), and efforts to repress it (i.e., the superego, or civilization). While many of Freud’s conclusions have been discounted, people’s fundamental inability to accept their animal nature has been recognized again and again. Subsequent psychological thinkers, such as Becker (1973) and Norman O. Brown (1959), however, reinterpreted Freud’s observations and insights, concluding that the cause for the conflict was not the superego, or even civilization, but rather, the uniquely human awareness of mortality. From the perspective of Becker and TMT, the body and its animal nature is a problem because it reminds people of their physical, and consequently mortal, nature. By virtue of this, the body should be more of a problem when thoughts of mortality and/or human creatureliness are salient. A decade ago, in
collaboration with my fellow TMT researchers, I began a programmatic investigation of the existential underpinnings of ambivalence toward the body.

**Sex**

Sex seemed like the obvious place to begin. One doesn’t need to look too deeply into the psychological, or popular, literature – even without ever having read Freud or seen a Woody Allen film – to realize there is a great deal of ambivalence surrounding sex. In collaboration with my colleagues, I reasoned that, despite its clear intrinsic appeal, sex may be a problem on account of its physical, creaturely aspects. Specifically, we hypothesized that the physical aspects of sex, or creatureliness, make human physicality salient and, therefore, should make thoughts of death accessible. In addition, people should distance themselves from physical sexuality when mortality is made salient.

In the first experiments on this topic, Goldenberg, Pyszczynski, McCoy, Greenberg, and Solomon (1999) supported this hypothesis, but uniquely among individuals high in neuroticism. In the first study, a reminder of mortality (called mortality salience, or MS) caused participants high in neuroticism to report that the physical aspects of sex (e.g., “feeling my genitals respond sexually”) were less appealing than they seemed when mortality had not been made salient. A second study revealed that, for individuals high in neuroticism, thinking about physical sex increased the accessibility of death-related thoughts on an implicit word fragment-completion measure (e.g., completing the word fragment “C O F F _ _” with the word “coffin” instead of “coffee”). Finally, we replicated this finding and showed that providing meaning by associating sex with love reduced death accessibility in response to thoughts of physical
sex. As expected, there were no similar effects in response to the romantic (symbolic, not physical) aspects of sex (e.g., “expressing love for my partner”).

We reasoned that these previous findings were unique among individuals high in neuroticism because these individuals are less able to imbue physical activities, such as sex, with meaning (without an explicit cue, e.g., priming love). Our position, however, suggests that sex, stripped of meaning, is problematic because of its creaturely connotations regardless of level of neuroticism. If this is correct, then reminding individuals of their similarity to other animals, thereby undermining their sense of symbolic meaning, should lead to effects in the general population similar to those found among neurotics.

We (Goldenberg, Cox, Pyszczynski, Greenberg, & Solomon, 2002) found evidence to support this in another two studies. First, thinking about the physical (but not romantic) aspects of sex led to an increase in the accessibility of death-related thoughts when participants had first been exposed to an essay highlighting the biological similarities between humans and animals (e.g., “…Whether you’re talking about lizards, cows, horses, insects, or humans, we’re all made up of the same basic biological products … skin, blood, organs, and bones…”). Then, in a second study, when participants were primed with this same (human creatureliness) essay, priming mortality salience resulted in decreased attraction to the physical, but again, not to the romantic, aspects of sex. In each study, exposing participants to an essay distinguishing humans from animals (e.g., “… Humans have language and culture … art, music, and literature … live in an abstract world of the imagination …”) eliminated the association between sex and death.
Thus, there is evidence to support the position that when sex is viewed in creaturely terms (because of creatureliness being primed before people think about sex, or without any priming among individuals high in neuroticism) thoughts of death become more accessible and, also, the salience of mortality promotes a negative reaction to this otherwise very pleasurable aspect of existence. When the threatening connotations of sex were removed by either priming human uniqueness or studying participants who scored relatively low in neuroticism, death-thoughts did not become accessible, and reminders of mortality did not have this same aversive effect. Indeed, mortality salience actually (non-significantly) increased the appeal of physical sex under these conditions. It is clear, then, that reactions to sex are complex (a point long understood). But beyond that, our studies indicate that it is death – or rather the awareness of it – that underlies the complexities.

**Excrement**

Sex is one of the most basic human behaviors – without sex our species would cease to exist – and although sex occurs more often than death (for most people), it too is usually restricted to certain situations, times of day, and so on. And sex is usually imbued with meaning – if not by virtue of love, then because of sexual prowess or sexual attractiveness and desirability. But the body has other needs that are (for most people) more frequent, and certainly less likely to convey meaning and value. Along the same lines as our research on sex, we predicted that people would respond more negatively, and with greater disgust, to the physical body and its byproducts when mortality was salient.

Supporting this hypothesis, Goldenberg et al. (2001, Study 1) found that mortality salience increased people’s disgust reactions to the bodily products subscale (e.g., a
bowel movement left unflushed) of Haidt, McCauley, and Rozin’s (1994) disgust-sensitivity measure. More recently, Cox, Goldenberg, Pyszczynski, and Weise (2007) conducted an additional two studies in which implicit death-related thought was assessed after individuals were presented with stimuli depicting human bodily products. In the first study, in which rather extreme disgust-eliciting pictures were used, body-product stimuli led to higher death thought accessibility than neutral pictures. This was the case regardless of whether participants had or had not previously been primed with human creatureliness. In another study using milder verbal body-product stimuli, death-thought accessibility was heightened, as in the sex studies, only when human creatureliness was first primed.

Thus, consistent with reactions to sexual behavior, negative reactions to the body’s even-more-unmentionable behaviors, too, perhaps less surprisingly, appear to be driven by a threat associated with concerns about human creatureliness and death. In contrast to sex, at least with respect to the more extreme examples, the threat was found in the absence of any explicit association being drawn to human creatureliness.

**Aggression**

Based on this theoretical framework and prior research, we considered that perhaps the threat associated with creatureliness could be used to ameliorate an often harmful human behavior: aggression. Human aggression, like sex, is often robed in meaning, and it can be used as a means of feeling as if one is a person of value; but at the same time it represents an animalistic aspect of human nature. We reasoned that if we could highlight the creatureliness of aggression, we could reduce the tendency to behave aggressively.
In collaboration with Motyl and colleagues (Motyl et al., 2011), we conducted a series of experiments testing this hypothesis. In the first study, participants primed with the human creatureliness essay (compared to human uniqueness essay) showed elevated death-thought accessibility after hitting a punching bag for 90 seconds. Priming creatureliness had no effect in a condition in which participants listened to music instead of punching the bag. As hypothesized, priming creatureliness also caused participants to punch the punching bag with less frequency and force, and to appear (to raters blind to the creatureliness conditions), and report being, uncomfortable while punching, in two additional experiments. Finally, participants primed to view violence as animalistic reported reduced support for going to war against Iran. These studies suggest that portraying violence as instinctual and creaturely may serve the potentially beneficial purpose of reducing the intensity of aggressive behavior and the support of violent solutions to international conflicts.

**Embodiment**

The findings presented thus far show that existential concerns cause people to distance themselves psychologically from sex, aggression, and other more “disgusting” aspects of the body. But what about physical experiences that are less sensational and merely sensory in nature? In collaboration with colleagues, I conducted a series of experiments that provided an opportunity to flee from the body by avoiding physical sensory experiences. In three experiments, Goldenberg, Hart, et al. (2006) demonstrated that priming thoughts about one’s death caused people to avoid physical experiences, including pleasurable ones. Again, this response was found to be moderated by neuroticism. In response to mortality salience, highly neurotic individuals spent less time
submerging their arm in ice-cold water and using an electric foot massager, but did not
avoid stimulation in non-physical domains (e.g., listening to music). As in the studies
examining reactions to sex, there was a trend for low neurotic individuals to embrace the
behaviors by actually doing them longer when mortality was salient. In another study,
Goldenberg, Heflick, and Cooper (2008) found that not only did individuals high in
neuroticism do less of a physical exercise designed to promote body-awareness when
mortality was primed, but they also experienced increased guilt after doing so following
such priming (compared to a mortality salience condition in which they did not do the
exercise). So even physical experiences that on the surface do not appear to pose any
threat, can be problematic when, under the surface, existential concerns become active.

The Body of Women

Women as Creaturely

The preceding section speaks to threats associated with the human body and its
behaviors; in another line of research, I have addressed reactions specifically to the
female body. My colleagues and I (e.g., Goldenberg & Roberts, 2010) have argued that
women’s bodies pose a special problem for creatures oriented toward denying their
creatureliness. Women’s bodies, compared to men’s, are connected to nature and
reproduction in ways that are obvious. As evolutionary theorists (e.g., Buss & Schmitt,
1993) have explained, mammalian females bear the brunt of the reproductive burden. In
the human species, women shed their uterine lining monthly; when pregnant, they carry a
fetus in their womb for nine months; after which, their breasts lactate so as to sustain the
infant. The extent of men’s obligatory investment, often delivered as the punch line of a
joke, is five, or maybe fifteen, minutes. Consequently, women are not only likely to be
the more “invested” parent (Trivers, 1972), there may be an additional psychological investment required to react favorably to certain aspects of women’s bodies.

These aspects – menstruation, pregnancy, and breast feeding – are likely to be threatening, especially when existential concerns are salient; but also, women’s bodies, because of the threat, are likely to be imbued with symbolic meaning and value to soften their threatening quality. As with the construct “ambivalent sexism” (Glick & Fiske, 1996), our theoretical position accounts for explicitly negative attitudes toward women and their bodies, and also for seemingly (but not really) positive reactions to women, including their objectification. In contrast to ambivalent sexism, however, our analysis does not view benevolence toward women as rooted primarily in a need to pacify women, but rather in men’s need to pacify themselves. That is, men not only need women; they also want them, and desiring a creature is in itself a threat. In addition, from our perspective, mortality-influenced reactions to women’s bodies are not unique to men, because women, too, experience a threat associated with their own bodies.

**Menstruation**

There is a long history of derisive reactions to female menstruation, with women being cast out from society (e.g., being confined to menstrual huts) or generally considered dirty and contaminating during menstruation (e.g., requiring mikvah baths; being kept from touching hunting tools; being kept away from seats on buses that men might sit on). More contemporary Western attitudes are also negative, and center mostly on concerns about sanitation and secrecy. Unlike pregnancy, or even breast feeding, this feature of women’s bodies has not been a cause for celebration or reverence. From my theoretical perspective, it seems likely that the disdain with which menstruation is viewed
may be because of its creatureliness. Not only that, but in contrast to pregnancy, and even nursing, one would be hard pressed to find evidence of menstruation being imbued with meaning or value.

Converging with the anthropological evidence, contemporary empirical research reveals negative views of menstruation and menstruating women (e.g., Rozin, Haidt, McCauley, Dunlop, & Ashmore, 1999). For example, Roberts, Goldenberg, Power, and Pyszczynski (2002) designed a study to examine reactions to relatively subtle reminders of menstruation. In this study, a female confederate seemed to inadvertently drop a wrapped tampon out of her backpack. Not only was the woman viewed as less competent and less likable than when the same woman, in another condition, dropped another feminine item – a hair barrette – from her bag, but the mere presence of the tampon led participants, both male and female, to distance themselves physically from the woman by sitting farther away from her. Although I am not aware of any studies examining reactions to menstruation as a function of existential concerns, the hypothesis is straightforward. Mortality salience should increase negative attitudes toward menstruation. A gambling person might wager that such a study will be conducted before this chapter’s publication.

**Pregnancy**

Pregnancy, too, should be a blatant reminder of women’s creatureliness, and existential concerns should therefore be expected to exacerbate negative attitudes toward pregnancy. Supporting this hypothesis, in the first of two experiments, Goldenberg, Cox, Arndt, and Goplen (2007) primed human creatureliness with the essay highlighting the similarities between humans and animals and then examined reactions to one of two
images: Demi Moore posing nude and pregnant on the cover of *Vanity Fair* and another *Vanity Fair* cover with Demi Moore similarly nude (wearing nothing but body paint) but not pregnant. In line with our position, priming creatureliness led to more negative reactions to the pregnant image but did not affect reactions to the one in which Moore was not pregnant. In a second experiment, participants evaluated actor Gwyneth Paltrow’s talent, competence, and intelligence in response to viewing a photo of her fully clad, pregnant or not, again as a function of a creatureliness manipulation. This study showed that not only do concerns about creatureliness inspire stronger reactions to a provocative pregnant pose, but a woman’s competence is devalued under such conditions.

**Breastfeeding**

In a series of experiments, Cox, Goldenberg, Arndt, and Pyszczynski (2007) also examined reactions to breastfeeding as a function of existential concerns. In two experiments the salience of mortality enhanced negative reactions to breastfeeding. In the first, after being reminded of death, breastfeeding in public was rated as a more severe transgression; and, in the second study, mortality salience led participants to dislike and sit further away from a woman they believed had just breastfed her baby in private compared to a woman who bottle-fed her baby. A separate study demonstrated a causal effect of creaturely concerns on breastfeeding reactions by showing that people expressed increased negativity toward a picture of a breastfeeding female after exposure to the human creatureliness essay. This latter study utilized two nearly identical *Redbook* magazine covers: one showing actor Pierce Brosnan with his wife and child, and the other showing the same pose except that his wife was breastfeeding. Finally, Cox et al.
provided evidence that not only do priming creatureliness and mortality salience exacerbate negative reactions to breastfeeding, but when mortality is primed, concerns about human creatureliness become more accessible in response to a woman breastfeeding, but not bottle-feeding, her baby (in the next room).

**Women as Objects**

There is evidence to support the claim that the reproductive aspects of women’s bodies can provoke a threat that is exacerbated by experimental primes highlighting the awareness of human mortality and/or creatureliness. It follows from the framework provided by TMT that a solution to this problem lies in humankind’s capacity to imbue that which is threatening with symbolic meaning. From the perspective of TMT, the threat inherent in women’s bodies can be ameliorated by infusing women’s bodies with symbolic meaning and value. My collaborator, Tomi-Ann Roberts, and I (Goldenberg & Roberts, 2004; Goldenberg & Roberts, 2010) have argued that the objectification of women accomplishes this goal. In Roberts et al. (2002), where a woman dropped a tampon, there was evidence for this idea. Both male and female participants responded to the tampon not only with negative evaluations of the woman who dropped it, but also with a tendency to objectify women in general. That is, it was deemed more important for women to be beautiful (than competent) when one woman had (supposedly) inadvertently revealed her menstrual status. These findings provide direct support for a causal influence of women’s creatureliness on their subsequent objectification. In an ongoing study we are examining whether women respond to a cue indicating that another women is menstruating with heightened tendencies to objectify themselves.

**Characteristics of Objects**
What does it mean to be “objectified”? And why is it that objectification ameliorates the threat associated with the creatureliness of women’s bodies? The answer, we suspect, has to do with the fact that objects, devoid of life, are antithetical not only to human, but also to animal, existence. Haslam (e.g., 2006) has discussed objectification as a special kind of dehumanization, which he dubbed mechanistic dehumanization (i.e., likening people to machines). This can be contrasted with a more traditional treatment of dehumanization, animalistic dehumanization, wherein people are viewed as being similar to animals. Thus, objectification can be considered a type of dehumanization (see also Nussbaum, 1999), but objectified women are dehumanized, from the current perspective, not by being compared to animals, but to non-living, non-breathing, non-creaturely things.

In a series of studies, we (Heflick & Goldenberg, 2009; Heflick, Goldenberg, Cooper, & Puvia, 2010) examined perceptions of women when their appearance was the focus. We reasoned that if the tendency is to objectify women more than men, focusing on a woman’s appearance should induce perceptions of her as more object-like, whereas focusing on a man’s appearance would not. We focused on the traits of competence, warmth, and morality, which from a number of perspectives are associated with humanness (e.g., Haslam, Bain, Douge, Lee, & Bastian, 2005; Nussbaum, 1999; see Heflick et al., 2010, for a more detailed explanation of our reasoning), and therefore should be deemphasized to the extent that a person is perceived as more object-like and less human-like.

In two sets of studies (Heflick & Goldenberg, 2009; Heflick et al., 2010), female perceptual targets included the following: at-the-time U.S. Vice Presidential candidate
Sarah Palin; actress Angelina Jolie; First Lady of the United States, Michelle Obama; CNN’s morning show host Robin Meade; and two unknown female weather forecasters who differed in attractiveness. Participants were instructed to evaluate each woman on the basis of either her appearance or who she was as a person. Across the board, the women were perceived as less competent and/or warm and/or moral (depending on which was assessed in each study) as a consequence of focusing on her appearance. In contrast, Barack Obama, ABC news lead anchor Brian Williams, and two unknown male weather forecasters who differed in attractiveness did not suffer comparable effects of appearance focus.

In addition, the study using Sarah Palin as a target included having participants rate her (and Angelina Jolie) on a handful of traits that they then judged in terms of how much each one characterizes human nature (i.e., what it means to be human). The correlation between the perceived typicality of each trait for the target and the extent that each trait was perceived as human was used as an indicator of the degree of humanity assigned to the target. Results indicated that appearance focus led participants to perceive both targets as lower in the characteristics they associated with human nature. Moreover, when Sarah Palin was the target, appearance focus reduced the likelihood of voting for the McCain-Palin ticket in the 2008 U.S. presidential election, an effect that was mediated by perceptions of competence and human nature.

Although these studies do not directly test the proposed connection between women’s creatureliness and their subsequent objectification, they do fit with the idea that women are objectified when their appearance is the focus, and objectification involves a stripping away of important human qualities.
The Body Eternal

So far I have shown that people tend to deny or disapprove of the body’s physicality, and tend to hide it or surround it with cultural symbols. In line with TMT, I view these tendencies as defenses against awareness of death, the ultimate destroyer of the body. But does this really help in the quest for literal immortality – the belief, held by 95% of Americans (Lester et al., 2002), that life continues after death? How can people believe in life after death in the face of indisputable evidence that the physical body dies? The answer is that they separate some aspect of the self (e.g., soul, spirit) from the undeniably mortal body.

We (Heflick, Goldenberg, Hart, Kamp, & Donchin, 2011) have begun a program of research to examine how viewing the self and the body dualistically interacts with mortality concerns to create the cognitive and motivational conditions necessary for belief in an afterlife. That is, we argue that the threat of physical mortality fuels a need for an afterlife (Greenberg, Landau, Solomon, & Pyszczynski, in press), but that belief in an afterlife is accomplished only to the extent that individuals can and do conceptualize the body and the self dualistically.

We designed three studies to test this line of reasoning. In each study, we either enhanced dualism (by priming participants to distance themselves psychologically from their bodies) or hindered it (by grounding them in their bodies). For example, in one study we instructed participants to place their feet on a vibrating foot massager, which made them more aware of and more likely to feel inseparable from their bodies (i.e., to perceive themselves non-dualistically). This was contrasted with a more neutral condition in which participants simply placed their feet on a foot massager that had not been turned
on. In one of these two conditions, participants underwent a mortality salience manipulation and completed measures of belief in life after death and a desire to believe. As hypothesized, mortality salience increased the desire to believe, but actual belief was moderated by the dualism manipulation. When dualism was made less salient by focusing on physical sensations, mortality salience decreased belief in an afterlife, but it had no effect when the foot massager was turned off.

To test whether a sense of dualism in the context of mortality salience enhances belief in an afterlife, we employed brain-computer interface (BCI) technology (Farwell & Donchin, 1988). With BCI, the brain’s electrical signals are read and used to communicate with an external device, in this case a computer screen. We fit each participant with an electrode cap and then had them focus on letters as they flashed on the computer screen. The letters were then output on a second monitor with varying accuracy. To the extent that a participant perceived the results as accurate – and therefore believed that he or she was typing mentally rather than physically – we assumed that he or she was encouraged to believe in mind-body dualism. Participants who reported lower levels of accuracy in the BCI situation were assumed to experience less evidence for dualism. Mortality salience was manipulated in this study by varying the words a participant encountered in the BCI task – “death” and “grave” or “field” and “table.” The results were as expected. Participants primed with death reported belief in an afterlife to the extent that they perceived the BCI as accurate. That is, as in the first study, dualism and mortality salience interacted to affect degree of belief in an afterlife, although this time we showed that enhancing the sense of dualism under mortality salience conditions increases this belief.
A final study integrated these two effects – hindering and enhancing dualism – in a single study, and in this case, unlike the BCI study, dualism enhancement was randomly assigned. The dualism manipulation in this study involved simply asking participants to write about the non-physical aspects of the self, or the physical aspects (to hinder dualism), or college experiences (to provide a neutral condition). Again, the results revealed an interaction between dualism and mortality salience. This time, mortality salience was found to positively affect afterlife belief when a sense of dualism (non-physical self) was primed, and it hindered belief in the non-dualistic (physical self) condition. Mortality salience had no effect on actual belief in the college experience condition. As in the first study, however, mortality salience did increase the desire to believe in life after death, regardless of the dualism condition. Thus, it is clear that how people relate to their physical selves has implications not just for their ideas and experiences in this life, but also in a world beyond.

**The Body in Question**

In sum, a large body of research is consistent with the position that the threat of human creatureliness and mortality underlie negative reactions to the human body. Evidence was presented with respect to the body generally, and specifically in response to the aspects of women’s bodies relevant to reproduction. The findings are also consistent with the idea that imbuing the body with meaning reduces the threat, and that objectification, therefore, may be rooted in a need to strip women’s bodies of their creatureliness. Finally, evidence was presented depicting how being grounded in a physical body can interfere with conceptualizations of life after death. Questions remain, however, and these may serve as a guide for future inquiry.
Inconsistencies?

Within these studies, there are inconsistencies concerning whether it is necessary to prime creatureliness in the context of mortality salience and whether mortality salience effects are found solely among highly neurotic individuals. In addition, in some studies priming creatureliness had effects in the absence of any mortality reminder. The reason for these differences is not entirely clear. One possibility concerns the nature of the bodily behaviors examined in this work. There is variability in the degree to which behaviors are imbued with symbolic meaning and other potentially buffering qualities. For example, sex, even its most physical aspects, is cloaked in uniquely human meanings, such as the appreciation of pleasure and intensity of human-to-human connection. It makes sense, then, that the connotation of human creatureliness may not be the same for all people (i.e., non-neurotics) or without directing the focus to the creaturely implication of the behavior. In contrast, in response to the body’s activities that are not typically imbued with meaning or value, such as human excretion, mortality salience evoked a negative reaction in the absence of any moderators. Thus, although the research findings are generally consistent – people (neurotic people especially) distance themselves psychologically from the physical aspects of the body when existential factors – creatureliness, mortality salience, or both – are rendered salient, further research is needed to clarify when it is that particular combinations of variables are necessary to produce these effects.

Cultural Restrictions?

When made especially aware of their mortality, people respond with increasingly negative reactions to the body and its behaviors, including behaviors that are ordinarily
quite desirable, such as sex. However, these very same bodily behaviors are often ones surrounded by taboos. Given that mortality salience promotes greater efforts to conform to cultural standards (e.g., Greenberg, Simon, Porteus, Pyszczynski, & Solomon, 1995), could negative reactions to the body’s physicality simply be a result of cultural restrictions? There is evidence to suggest that this is not the case. Most notably, mortality concerns lead people to distance themselves from sensory experiences that are not in the slightest bit taboo (e.g., submersing one’s arm in ice-cold water). Moreover, effects are not found only in response to mortality salience, but also in response to reminders of the similarities between humans and animals, suggesting that concerns about human creatureliness play a critical role in the distancing-from-the-body reactions.

One can’t help but notice, however, that a disproportionate number of societal norms and taboos focus on the body and its behaviors. Why might this be? The current perspective suggests that cultural restrictions so often target the body because of its inherent existential threat. It is not that the restrictions cause discomfort (or at least this is not the whole story), but that the discomfort causes the restrictions. And therefore, the awareness of mortality and concerns about human creatureliness may underlie, not just individuals’ inhibitions, but possibly the norms themselves (Goldenberg, Hart, et al., 2006).

This question of whether the threat emanates from external (cultural) versus internal (existential) pressures is also relevant in the context of negative reactions to the unique aspects of women’s bodies that are involved in reproduction. Although it makes sense that women’s bodily investment in the continuation of the species would render their bodies threatening, it is hard to test this as distinct from the influence of gender
inequality. Men are, and have traditionally been, in a position of greater economic, political and social power. Thus, they have the power to name that which should be concealed, and that which is the-bigger-the-better. Could it be there is no specific inherent threat in women’s bodies, but rather, societal norms have made it so? It will be a challenge for future research to more clearly delineate the existential and cultural influences on the reactions to women’s bodies.

**Beautification versus Sexualization?**

The treatment of objectification as I have described it differs somewhat from portrayals of objectification in which women are explicitly sexualized. Clearly, when women are sexualized, they are sometimes likened to animals – for example, with derogatory, and also seemingly complimentary, slang names (e.g., bitch, fox). There are also empirical findings revealing that sexualized women are implicitly likened to animals (Vaes, Paladino, & Puvia, 2010). Yet my colleagues and I have argued that the objectification of women strips them not only of their humanness, but their creatureliness, or animalness, as well, thereby reducing the threat caused by women’s association with nature. How do we reconcile these positions?

One possibility (Heflick et al., 2010) is that objectification comes in two forms – the explicitly sexual and a more seemingly benevolent kind (Glick & Fiske, 1996). From this perspective, the appearance-focus manipulation in the Heflick et al. studies was likely objectifying (for women) without necessarily being sexualizing. Objectifying without sexualizing women may result in mechanistic dehumanization (Haslam, 2006), which in a sense purifies women by turning them into non-creaturely objects. In contrast, it is possible that more explicit sexualization of women would result in more animalistic
dehumanization, consistent with the findings of Vaes and colleagues (2010). We are currently collecting data to test these ideas.

**Living in a Material World?**

Another question arises when considering the merger between the objectification of women and the findings revealing that afterlife beliefs are hindered by a focus on the body. As described by objectification theory (Fredrickson & Roberts, 1997), women, more than men, learn that their value is contingent on their physical appearance. As a consequence, they are prone to adopt an external perspective on themselves, focusing on their body’s appearance. Our perspective suggests that in such a state of self-objectification, mortality reminders may reduce belief in an afterlife for women. That is, to the extent that the mindset “you are your body” is salient, the idea that one can exist beyond the body’s death becomes an untenable defense in response to mortality salience. Similarly, objectifying (other) women may have an additional consequence – beyond objectified women being perceived as less competent, warm, and moral (Heflick et al., 2010). It may be that when others focus on a woman’s appearance, she is, as a consequence of being a physical thing, assumed by others to have no afterlife and perhaps no “soul.” Heflick et al. (2011) recently speculated about this possibility and are in the process of designing studies to test this. The consequences are chilling in light of arguments excusing animal cruelty on the basis of the belief that animals have no souls.

On a related note, one can question the implications of the focus on material goods and successes, which is so prominent in Western culture. If an inability to separate the body from the self interferes with belief in life after death, then might living in a material world influence belief in life after death? There is much correlational, and now
experimental (Van Boven & Gilovich, 2003), evidence for the hypothesis that a focus on material possession reduces happiness, but in addition to affecting emotional state, can materialism influence beliefs about whether there is an afterlife? Future research could easily test whether a focus on material possessions hinders belief in an afterlife in response to mortality salience.

**Approaching the Body?**

I would like to conclude with two related questions: One, why do people approach the body, in addition to avoiding it, and two, why do they not do it more? Research to date has revealed a tendency for people not only to distance themselves psychologically from the body, but also, in many studies, for people low in neuroticism or exposed to a prime highlighting human uniqueness to respond to mortality salience with the opposite tendency, approaching physical behaviors when mortality was salient. In other writings (e.g., Goldenberg, Kosloff, & Greenberg, 2006), my colleagues and I have considered the possibility that physical experiences offer a means to affirm life, and thus under the right (protected) conditions, it makes sense that the body could be embraced as a solution to the threat associated with the awareness of death.

The tendency to embrace the body, however, has been less reliable as a response to mortality salience than distancing from the body; the trend to approach the body has been only a non-significant trend when found at all. We suspect that although the body can offer a means to combat fear of death, a more basic tendency is to escape the body. That is, the more defensive strategy is to flee from the body. We have previously argued (Pyszczynski, Greenberg, & Goldenberg, 2003) that while integrative or growth-oriented outcomes are possible in response to mortality salience, defensive needs take precedence.
Just as it makes sense that the body can be embraced, and life affirmed, as a way to combat fear of death, and just as this tends not to be the case, women’s bodies too offer a potentially life affirming solution to the problem of death. For women’s bodies create, carry, and sustain life. Yet reactions, exacerbated by mortality salience, tend to be negative. And indeed, when reactions to women’s bodies are less blatantly negative – that is, when they are objectified – such responses quite literally suck the life out of women as our recent work on perceptions of objectified women shows.

Future research should be directed at ways to promote less defensiveness in response to mortality salience generally, and also specifically with respect to the physical body. If individuals who score low on neuroticism are less defensive, what is it about them that makes them so? One hint might be that neurotic individuals tend to be oriented toward avoidance (i.e., predisposed toward avoiding potentially punishing stimuli in contrast to approaching potentially rewarding stimuli, Elliot & Trash, 2002). Thus, we might find that people who are more approach oriented (e.g., extraverts; Elliot & Trash, 2002), rather than merely less avoidance oriented (i.e., low neurotics), would respond to mortality salience by embracing the body. It might also be that people can learn to be more sensitive to the rewards of the body, for example, by engaging in physical activities that subtly increase body-awareness, such as yoga (see Daubenmier, 2005), in context of salient death thought. Findings that yoga decreases self-objectification are consistent with this general position (Daubenmier, 2005). We have previously demonstrated health risks associated with avoidance of the body in response to mortality salience (Goldenberg & Arndt, 2008; Goldenberg, Arndt, Hart, & Routledge, 2008), but it may also be that a less defensive orientation, helping people learn to approach the body in response to the
awareness of death, can also set the stage for more positive attitudes toward, and greater appreciation of, people’s own, and also women’s, not just beautiful, but natural bodies.
References


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