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Terror management theory: A theoretical perspective on orgination, maintenance, and research

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Abstract

Research suggests that humans engage in several worldview defense mechanisms to shield against the terror associated with an awareness of mortality (Greenberg, Pyszczynski, & Solomon, 1986). To mitigate anxiety, people strongly adhere to their cultural worldviews that allow them to boost their self-esteem. This self-esteem fosters a sense of immortality because the world is considered a "just" place that will not harm someone that is living in adherence to cultural guidelines (Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon, 1989). This paper provides a theoretical background for Terror Management Theory including its philosophical origination, the primary tenets of the theory, and the experimental methods used to manipulate death awareness.

Keywords: Terror Management Theory; Mortality Salience; Death Awareness; Memes; Cultural Defense Mechanisms; Shielding

Introduction

When confronted with mortality, humans face the possibility of experiencing a significant amount of terror. Interestingly, many times, people are able to avoid this terror and actually enjoy the mortality themes that are presented. Research into Terror Management Theory (TMT; Greenberg, Pyszczynski, & Solomon, 1986; Greenberg, Pyszczynski, Solomon, Rosenblatt, Veeder, Kirkland, & Lyon, 1990; Solomon, Greenberg, & Pyszczynski, 1991) suggests a possible explanation for this perplexing phenomenon. Humans engage in several cultural worldview defense mechanisms when cognizant of their own mortality in order to shield against the terror that is associated with it. More specifically, people observe their worldviews more strongly in order to give themselves a degree of self-purpose to combat the adverse effects that thoughts of their own mortality have on their well-being (Solomon et al., 1991).

To illustrate this theory, consider the enduring tale of Romeo and Juliet. This example invokes themes of death that should remind its audience about their own mortality, an awareness that should cause them to experience a significant amount of terror. This terror is so powerful that it should almost paralyze those that are unfortunate enough to experience it (Greenberg et al., 1986). This would suggest an important human drive to avoid all instances of death and themes of mortality that would cause a sense of death awareness. An unusual phenomenon occurs, however. Not only does the audience avoid the terror associated with the death themes apparent in this form of media, but they actually enjoy them. This is obvious from the frequent performances and readings of the Shakespearian masterpiece. This behavior is surprising considering that one might anticipate audiences would find reminders of death off-putting.

This is only one example of TMT. Consider the events that followed the

terrorist attacks on America on September 11th, 2001. Not only was death broadcasted worldwide via television, the Internet, etc., but many people experienced it first-hand with the loss of a relative or friend. This tragedy should have caused a massive outbreak of terror and hysteria, at least from the American people. Although terror did occur, it was not the paralyzing terror that was expected. Surprisingly, Americans joined together and united under a powerful sense of patriotism and optimism. Even more interesting is that this optimism was not limited to judgments about the countries future. Both national and personal optimism increased significantly (ABC News, Sept 2002).

Origination of the Theory

Research into TMT is based primarily on the works of Ernest Becker (1962; 1973; 1975) in which a need for self-esteem allows us to think in self-reflective, symbolic, and temporal thought. Although this is evolutionarily adaptive, it also causes several problems associated with this type of thought. For example, humans have the ability to contemplate our purpose in life and our reason for existing. Also, people can surmise that the world is an uncontrollable place and that we could cease to exist at any time. More specifically, we can anticipate that we will ultimately die.

Shielding. In order to shield against the terror that is associated with this idea of the world, humans began to develop a sense of culture that allowed us to see the world as a predictable place of permanence and order. Each culture also provides a way to surmise the creation of this "just" world and a way to achieve immortality by living a life that is good and meaningful. This suggests the importance for self-esteem. Being cultural animals, we can assign a value to ourselves

based primarily on whether or not we satisfy the cultural requirements for being good as defined by each specific culture. By increasing our self-esteem, we believe that we are living a meaningful life that is deemed culturally good. Due to this, we can ultimately "deny" mortality and the terror that is associated with it. The denial of this mortality allows us to deny our creatureliness (or our animalistic nature) and further allows us to separate ourselves from the social animals that do not possess culture (Greenberg et al., 1986).

Early Childhood and Later Development. These conceptions of the world are only strengthened by early childhood experiences. Children develop a sense of conditional love from their parents. So long as they are good children, they receive love and affection. When they are bad, however, love is seemingly removed as they receive a punishment. This causes good feelings to be associated with a positive self-concept and terror to become associated with a negative self-concept. Just as we deny our mortality by believing that we are good, children avoid feelings of terror by acting and trying to act in ways that are deemed appropriate by their parents (Greenberg et al., 1986).

As the children develop, they realize that their parents cannot always protect them. More specifically, they develop a sense of mortality, a mortality that even their parents cannot protect them or themselves from. In order to shield against the terror associated with this, culture is then substituted because it provides standards, values, and the perception that the world is a just and good place. In order to defend against existential terror, it is imperative that we believe that we are good. This can be accomplished through maximizing self-esteem. By believing that we are good, we diminish

terror and gain a degree of immortality because we live in a just world which we believe would never allow someone that is doing good based on the cultural standards to cease to exist (Greenberg et al., 1986).

Evolutionary and Genetic Mechanisms

The importance of evolutionary theory in the philosophical underpinnings of TMT cannot be overstated. Darwin (1872/1998; 1874/1998) proposed that all humans are products of evolution. More importantly, human emotions and behaviors are the remaining emotions displayed by animals that retained importance for the survival of the species. Current research has suggested that many psychological factors are adaptations to the different circumstances (e.g. social, ecological) that are integral to human survival. The psychological adaptations that form the substrate of the human mind are present in-part due to natural selection processes (Ploeger, van der Maas, & Raijmakers, 2008). Primarily, the genetic variations of psychological functioning that promoted the survival of the species were passed on to future generations. Individuals lacking these adaptive traits failed to reproduce and these nonadaptive traits were removed from the human gene pool (Hergenhahn, 2005).

The Cultural Drama. Evolutionarily speaking, culture is still a relatively new phenomenon. Without its development, humans would not have a means to shield themselves from the terror that is associated with death awareness. Although it is unlikely that culture was constructed solely to combat death anxiety, a byproduct of its development was this shielding ability. One possible component to the development of culture is the concept of Memes. Dawkins (1975) suggests that memes are non-genetic replicators that are important for evolution.

Memes are ideas, thoughts, tunes, etc. that are passed on through the culture. Just as adaptive genes are weeded out through the process of natural selection and then passed down through reproduction, successful memes are passed to other people in the culture. The "new" recipient of the meme chooses whether or not the meme is worthy to be passed on to someone else. Those memes that are passed on continue to thrive and develop in the culture. Those memes that are not passed on to other people eventually die out from the culture just as nonadaptive genes should eventually be removed from the gene pool. Broadly speaking, memes are ideas, styles, creeds, etc. that are passed on throughout the culture and help to distinguish one culture from another. Regardless of the debate as to whether the concept of a meme is the best framework of cultural transmission, the important aspect is that culture is transmitted.

Considering the importance of culture to TMT, it is easy to make a connection between TMT and memes. Interestingly, to our knowledge, these two concepts have never been examined together. Memes are one method that allows for the development of culture. Several of these memes become important for shielding against the terror that is associated with becoming death aware. For example, Dawkins (1975) suggests that religion and the concept of God is a meme that has been passed down through oral, written, musical, and other such traditions. When examined through TMT, it becomes apparent why this meme is successful. Humans need a way to combat the adverse effects associated with death. The concept of religion and God allow people that believe to achieve immortality by following the tenants that are deemed acceptable. By following the tenants, people boost their self-esteem. This increased self-esteem

causes a sense of immortality because the world is a just place (Greenberg et al., 1986). It is believed that God will not punish those that do not disobey His commandments. Aside from this, Christianity provides literal immortality in the afterlife so long as people follow the teachings of the religion. This literal and figurative immortality provides a buffer for the death anxiety that can become salient at any time. The anxiety buffering effects that the religion meme has is one cause for us to keep it in the culture and pass it on to others.

Refinement of the Theory

Current research in TMT suggests that when faced with the potential anxiety that is evoked by the realization of mortality, people desire to achieve a degree of self-esteem and self-value based largely in a cultural context. As previously stated, the importance of cultural acceptance cannot be over-emphasized when examining TMT. People are compelled to conceptualize the world as a place of justice in which bad outcomes cannot and will not affect good people. Most importantly, culture provides a sense of immortality due to the symbolic importance that people place in aspects such as religion and contributions that are deemed culturally acceptable (Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon, 1989).

Other research has emphasized the instinctive nature of self-preservation inherent in combating the detrimental effects of mortality salience. Specifically, humans use the same cognitive structures that initially incited the terror to suppress these feelings. The conceptions of mortality and reality are evoked simultaneously and allow the terror associated with death to decrease. Thoughts of reality develop into culture and instances in which one adhered to the

standards that are important to that culture. This evokes a strong feeling of self-esteem which is imperative to the suppression of terror (Goldenberg, McCoy, Pyszczynski, Greenberg, & Solomon, 2000). The emphasis that is placed on culture's ability to aid in terror suppression cannot be underestimated. It has been suggested that humans created culture for the sole purpose of combating the terror associated with the animal instincts involved in self-preservation because of our realization of the external threats to survival. This allows a degree of immortality by placing each person into a group that is more permanent than a single life and therefore more meaningful. With this enhanced purpose, humans are able to raise themselves above the existence of other animals that do not engage in culture (Goldenberg, McCoy, Pyszczynski, Greenberg, & Solomon, 1999). Conversely, our assertion is that death shielding was an unintended byproduct of the development of culture. As culture evolved, the different ideas or memes also served this duel role to suppress death awareness thus allowing the different shields critical to TMT.

Anxiety Buffers. Both men and women engage in several different worldview defenses that shield against death anxiety. Although there are many defense mechanisms, all of them have a significant importance to the person's culture. Due to the cultural significance, these defenses provide a means to boost self-esteem. It is this self-esteem boost that defends against the terror associated with death (Greenberg et al., 1986).

In-group/Out-group. In-group identification and in-group favoritism have been observed to greatly increase due to death awareness. This implies a strong desire to belong in the cultural context to

shield against death anxiety. Also, people react very harshly to deviations from cultural norms further suggesting that culture is a powerful construct in TMT. This effect has been observed despite having extensive training in being impartial (Rosenblatt et al., 1989; Greenberg et al., 1990).

Religion. Religion is an important defense mechanism that shields against the terror associated with death awareness. It not only provides its followers with a cultural way to boost self-esteem by following the tenants, but it also provides literal immortality in the afterlife which acts as an anxiety buffer. After becoming death aware, religious people commonly remember and cling to the theological foundations of the religion such as prayer, fasting, etc. in order to shield against death anxiety (Bos, Doosje, Loseman, Laarhoven, Veldhuizen, & Veldman, 2012).

Nationalism. Primarily, men have been observed to become more patriotic when death aware under any circumstance. This can include several different forms of patriotism such as hanging a flag or readily supporting the government. Women, however, only show these types of thoughts after they have been primed to think about their country before becoming death aware (Arndt, Greenberg, & Cook, 2002). This effect has been observed heavily in the year following the terrorist attacks of September 11th, 2001. (ABC News, Sept 2002).

Relationships. Women have been observed to think more about romantic relationships in order to shield against death anxiety (Arndt et al., 2002). It is suggested that greater emotional connection and transcendence offered by the context of the romantic relationship is what causes this type of thought (Birnbaum, Hirschberger, &

Goldenberg, 2010). Also, relationships are considered an important basis of protection. This alternative may also suggest why women, instead of men, experience more thoughts about relationships when thinking about death at least from an evolutionary standpoint (Arndt et al., 2002).

Interest in Sex. Research into TMT has found that interest in sex can either increase or decrease, largely depending on whether the sex is casual or romantic. Also, body self-esteem (Goldenberg et al., 2000) is an important determinant in sexual interest after death awareness.

Casual Sex. Interest in casual sex has been shown to decrease in response to death awareness. The relationship that sexual activity has with primal, human nature can account for the decreased desire to engage in sexual activity. Generally, the mind considers sex an activity that connects humans to their animalistic impulses. This connection to primitive humanity causes the terror associated with mortality salience to manifest and the mind to attempt to combat this anxiety (Goldenberg et al., 1999). Also, as previously stated, thoughts of death can prime religious ideology. In Christianity, for instance, a major tenant is to suppress sexual desire unless it is with a spouse. This alternative explanation may explain the decrease in casual sex observed after becoming death aware (Arrowood, Garris, Franklin, & Bussel, 2014).

Romantic Sex. Alternatively, interest in romantic sex greatly increases in response to death awareness. This is likely due to the romantic relationships that have already formed (Birnbaum, Hirschberger, & Goldenberg, 2010). Romantic sex only occurs under the context of romantic love which allows humans to ignore the unconscious connection that is made

between the act of sex and creatureliness. Without this connection, it is unlikely that the terror associated with death will manifest (Goldenberg et al., 1999). Also, religious ideology would exert the same influence as it does over casual sex (Arrowood et al., 2014). The experience of romantic love allows sex to become a uniquely human experience that is important to cultural worldviews (Goldenberg et al., 1999).

Body Self-esteem. Certain personal characteristics are integral to interest in sex while under the effects of mortality salience. Both men and women that have a high degree of body esteem consider the physical aspects involved with sex as highly alluring after being primed to consider their own mortality. People with this enhanced body esteem have a strong desire to engage in physical bodily activities; specifically sex. It is hypothesized that this is increasing their physical identification and effectively heightening their self-esteem (Goldenberg et al., 2000).

Desire for Offspring. Having children can instill meaning and value in life and provide a sense of immortality because parents can pass on their belief systems and ideals to their children (Baumeister, 1991). This suggests that after encountering death, whether in reality or imaginary, the desire to produce offspring is fostered and promoted because it reduces the anxiety that is instilled by thoughts of mortality (Fritsche, Jonas, Fischer, Koranyi, Berger, & Fleischmann, 2006). This effect can be observed when examining the baby-boom following the terrorist attack on September 11th, 2001. Natality was significantly higher in the months following this mortality salient event (CNN, May 2002).

Findings by Wisman & Goldenberg (2005) support this assumption to a degree.

Primarily, men experienced the increased desire for children after being primed to think about their death. Women were not observed, however, to show this same trend because of concerns about their career. The desire to have children is not the only aspect that is affected, however. The desired number of children also decreases when primed to consider thoughts related to the women's mortality. This can be explained by the "negative" aspects that are associated with children. Women's careers are observed to be affected more than men's careers when children are born. This explanation was further supported by the finding that women that are not highly devoted to their careers have a significantly higher desire for offspring than women that are devoted to their careers.

Research

Primarily, research in TMT is accomplished by making participants death aware and then measuring their responses on various psychological constructs such as patriotism (Arndt, Greenberg, & Cook, 2002) and in-group/out-group (Rosenblatt et al., 1989; Greenberg et al., 1990). Several different ways to manipulate death awareness have been found, each of which provide certain benefits and limitations.

Mortality Salience Measures

Subliminal Death Priming. In order to unconsciously prime participants to think about death, participants are told to stare at a fixation point on a computer screen. They are then briefly shown two words that are related or unrelated and then have to determine whether or not they are related or not. In between ten of the pairs, the death awareness manipulation condition will flash the word "dead" at the computer screens fixation point. Participants that are in the

control condition are shown the word "pain" instead of "dead." These words are flashed quickly and do not allow for conscious recognition of the term (Arndt et al., 2002).

The Projective Life Attitudes Assessment. The Projective Life Attitudes Assessment is the most commonly used measure to manipulate mortality salience. In order to prime death awareness, participants are required to write two short essays ("Please briefly describe the emotions that the thought of your own death arouses in you" and "Jot down, as specifically as you can, what you think happens to YOU as you physically die and once you are physically dead") The control condition uses the same questions, however, the term dental pain is used instead of death (Vail III, Arndt, & Pope, 2011).

The Death Word Accessibility Measure. The death word accessibility measure (Arndt, Greenberg, Solomon, Pyszczynski, & Simon, 1997) requires participants to view a list of twenty-five word fragments. Five of these words can be completed with a neutral word or a death related word. For example, the word fragment "DE _ _" can be completed with the word "DEER" or "DEAD." Generally, this manipulation is given after other measures have been presented to observe how strong of an effect the original manipulation had.

Benefits and Qualifications of TMT Measures. Each measure has been shown to effectively induce mortality salience in participants; however, they do not induce death awareness similarly. The Projective Life Attitudes Assessment (Vail III et al., 2011) and the Death Word Accessibility Measure (Arndt et al., 1997) both use explicit cues to prime participants to consider their mortality. This type of

priming is only effective in inducing delayed effects. Generally, a five minute pause is needed in order to induce thoughts of death. It is suggested that during this five minutes, we are actively trying to suppress death awareness. Eventually, this suppression becomes too costly on our cognitive resources. In order to decrease the costs, we then adopt the worldview defense strategy resulting in the increases in the defenses mentioned previously. Further, longer delay lengths have been reported to have larger effect sizes (Martin & van den Bos, 2014). In contrast, Subliminal Death Priming has been observed to induce immediate effects on world view defenses (Arndt et al., 2002).

Conclusion

In order to shield against the terror that is associated with death, humans engage in several worldview defense mechanisms (Rosenblatt et al., 1989). These defense mechanisms can manifest in many different ways depending on what is important to the person and the culture that they identify with (e.g. religion, patriotism, relationships). It is imperative that humans promote their self-esteem by adhering to cultural values in order to avoid death anxiety because the world is considered a "just" place that will not harm someone that is upholding the values that are considered good by the culture (Greenberg et al., 1986). By successfully utilizing our cultural defenses, we can use death to entertain people through our popular media as opposed to paralyzing them with death anxiety and terror.

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