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Coping with fiction: Aesthetic experiences with stories as a form of terror management

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Coping with fiction:
Aesthetic experiences with stories as a form of terror management

by

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A dissertation submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of
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TABLE OF CONTENTS

LIST OF TABLES	iii
LIST OF FIGURES	iv
ABSTRACT	v
CHAPTER 1. INTRODUCTION	1
CHAPTER 2. LITERATURE REVIEW	6
CHAPTER 3. STUDY 1	32
CHAPTER 4. STUDY 2	53
CHAPTER 5. EXPLORATORY ANALYSES	65
CHAPTER 6. GENERAL DISCUSSION	102
REFERENCES CITED	111

LIST OF TABLES

1. Factor Loadings of Viewer Reaction Questionnaire Items	36
2. Regressions of Personality and Condition on VRQ Self-Modifying Feelings	45
3. Co-Experience of Evaluative and Self-Modifying Feelings	51
4. Categories of Content in Participants' Top Three Striking Scenes	66
5. Binary Logistic Regressions for Experiences Predicted by Condition and Transportability	79
6. Binary Logistic Regressions for Experiences Predicted by Condition and Absorption	80

LIST OF FIGURES

1. Scatter plots of personality by condition on VRQ self-modifying feeling scores.	46
2. Interaction of Evaluative Feelings and Condition on VRQ Self-Modifying Feeling Scores	52
3. Interaction of Self-Modifying Feelings and Condition on Death Thought Accessibility Scores	58
4. Three-Way Interaction of Narrative Feelings, Condition, and Transportability on Death Thought Accessibility	83
5. Three-Way Interaction of Denigration, Condition, and Transportability on Death Thought Accessibility	87
6. Three-way interaction of condition, self-modifying feelings, and transportability on death thought accessibility	88
7. Three-way interaction of condition, self-modifying feelings, and absorption on death thought accessibility	89
8. Three-way interaction of condition, literary focus classification, and transportability on death thought accessibility	92
9. Three-way interaction of condition, literary focus classification, and absorption on death thought accessibility	93
10. Predicted Probabilities of the 'Literary Focus' Classification	95

ABSTRACT

The personal feelings experienced while engaging with a fictional narrative were examined for their potential terror management function. In particular, the aesthetic experience of self-modifying feelings, which allow for the recognition of shared experiences between characters, humankind, and oneself, were hypothesized to serve as a way of bolstering one's cultural worldview and alleviating death anxiety. Study 1 did not support the hypothesis that self-modifying feelings were more likely to occur after mortality salience. Study 2 and subsequent exploratory analyses did identify self-modifying feelings as related to death thought accessibility after watching a television episode; however, this was in the opposite direction as expected. Additional types of feelings and personality traits are also considered for their function of narratives.

CHAPTER 1. INTRODUCTION.

“At its best, it is talking to a deeper part of you, and if you know that it’s doing that, or you become aware of it, you lessen the ability to go straight in. Fairy tales certainly are in this category, as in a lot of fantasy – maybe everything is.”

- Jim Henson (2005, p. 32)

Life is often passing us by. We get wrapped up in the activities of the day-to-day; doing the laundry, driving to work, cooking dinner, and even those activities we engage in to escape from daily life are often mundane. Catching up on the latest best-seller, tuning into your favorite prime-time drama, or watching the latest blockbuster hit are relaxing and provide a nice break from work, yet we may walk out of the movie theatre or turn off the TV set without a second thought to what we just watched. We might put down the book and be perfectly content leaving Harry Potter stuck on a train, invisible, with a bleeding nose, while we go back to our own life.

Of course, life is not always like this. There are those moments when we stand back and find ourselves in awe of the world around us. The beauty of a fuchsia sunset, the touching qualities of Tchaikovsky’s *Swan Lake*, the pure joy in a baby’s laugh: these moments, when we are open to them, can remind us that there is more to life than the laundry and the daily commute. There are things in this world that make it beautiful and awe-inspiring, and, if we are truly open, we may recognize that we, too, are part of this sublime existence. In his theory of self-actualization, Maslow (1968) describes these as ‘peak experiences,’ or self-actualized instances, where one is momentarily aware of his or her full potential in life. Ironically, there are even things that are not distinctly part of this world that can elicit such reactions. In particular, fictional creations (artwork, stories) have been known to produce such sublime moments. These experiences with art and story have been given

different names, including aesthetic judgment (i.e. Kant as cited in Burnham, 2000), and aesthetic experiences (Dewey, 1934; Edman, 1939; Van Kaam, 1968), but each refer to the experiences that include a sense of meaning making and an almost transcendental realization that we, as human beings, are part of something larger than ourselves.

The investigation into the impact of fictional narratives to awaken a sense of awe has long been discussed in philosophical circles (e.g. Aristotle, trans. 1996), in literary discussions on the proper interpretation of a text (Culler, 1981), and in personal anecdotes of stories that changed lives (Katzev, 2009); however, such investigations have only started to enter the empirical realm of psychological science. Many have pondered the way the hypothetical “ideal” reader is supposed to become engaged with a story, with little validity testing of these theories (Miall, 2006b), and others have documented actual experiences, but with no attempts at developing a theory connecting them all (Katzev, 2009).

A research area has recently emerged that is empirically measuring and predicting the types of various experiences people may have while reading a story. Miall & Kuiken (2004) have begun to bridge the areas of literary criticism and psychological research in an empirical study of Reader Response Theory to identify and understand the components of reactions to literature. Looking from an affective rather than a cognitive standpoint, they have developed a theory of affective responses that individuals are capable of having towards a given text, each with an increasing level of involvement (Kuiken, Miall, & Sikora, 2004). Three types of feelings have been identified that do not involve a sense of self or peak experiences: evaluative, narrative, and aesthetic feelings. Evaluative feelings are those positive or negative attitudes of the text as whole (e.g. “I enjoyed this story”), narrative feelings are positive or negative attitudes towards specific aspects of the story (e.g. characters, plot,

setting; “It scared me when the villain threatened the children”), and aesthetic feelings, not to be confused with aesthetic experiences or encounters, are emotional reactions to specific qualities of the text itself, such as an unexpected use of metaphor or change in writing style (e.g. “I liked the allusion to *The Iliad*; it really helped me understand the protagonists situation”).

The final feelings discussed as a reaction to story are ‘self-modifying feelings,’ which are a necessary component of what Kuiken, Miall, et al. (2004) term ‘expressive enactment:’ a moment in reading when the boundary between the self and the story is blurred. Self-modifying feelings are described as a set of feelings that come from 1) recognizing something as familiar in the text and 2) through this recognition, realizing something about oneself that previously had gone unnoticed or not been experienced in this way. Through these feelings, the reader comes to understand the fictional world in a way that can further his own understanding of the real world and his own self. The use of the term “self-modifying” in this context describes the affective experience as having the potential for an altered understanding of one’s self, without reference to any future behavioral outcomes.

Clearly these self-modifying feelings can be seen as similar to, if not equivalent to, the transcendental aesthetic experiences described earlier, as both incorporate a sense of recognizing the self as belonging to something larger. As research begins to document these experiences scientifically, unearthing their unique qualities and the important potential impact they hold for individuals, other areas of inquiry regarding aesthetic encounters begin to emerge. One such question is why the medium of art, rather than other types of experiences, is particularly capable of eliciting aesthetic experiences. Some even argue that

the fundamental purpose of art is to facilitate these experiences, whether for the artist or the viewer (Dewey, 1934; Edman, 1939).

Miall (2006a) has begun to address these types of functional questions for the specific medium of literature, asking questions such as ‘Why did fictional writing develop originally?’ and ‘Why has it persisted through time and culture?’ As the literary professor addressing these questions, however, the answers remain on more practical functions, such as the development of vocabulary and communication abilities. The question regarding the purpose of fiction eliciting self-modifying feelings, and sublime ‘peak-experience’ moments, remains to be addressed. Another interdisciplinary connection may be able to provide insights and methods capable of investigating these questions. In particular, the social psychological and existential approach of Terror Management Theory (TMT) may be able to offer the specific link to these properties and functions of fictional literature in particular, and art in general.

During the 1980s, after reading Ernest Becker’s *The Denial of Death*, a group of social psychologists developed terror management theory, which posits that humans have developed a number of psychological mechanisms to protect us from the potential terror that awareness of our own mortality may elicit (Greenberg, Pyszczynski, & Solomon, 1986; Solomon, Greenberg, & Pyszczynski, 2004). Particularly, as humans evolved, advancing beyond other species in our metacognitive abilities, one unique quality we developed was the awareness that some day we will die and life is so fragile that we do not know when that end will come. This can be a very frightening thought, so we simultaneously developed certain psychological mechanisms to be able to cope with this anxiety: cultural worldviews and self-esteem. Cultural Worldviews (CWVs) are symbolic systems of shared meaning (i.e. culture)

that can provide literal or symbolic immortality if one proves him or herself to be a valuable member of that culture (Solomon, et al., 2004). For example, for many Christians, believing in God and following his Word promises entry into heaven. Self-esteem serves as a monitor of how well we are fitting into these systems of meaning by making valuable contributions (Solomon, et al., 2004).

A few empirical studies have already been conducted within the realm of social psychology, utilizing TMT, to investigate experiences with art (Goldenberg, Pyszczynski, Johnson, Greenberg, & Solomon, 1999; Landau, Greenberg, Solomon, Pyszczynski, & Martens, 2006). These studies have supported the hypothesis that certain types of art can serve to bolster one's faith in his or her CWV; however, they have predominately considered people's attitudes about the work (i.e. abstract art, final chapter of a novel, respectively) rather than any sublime or self-modifying experience. Considering the results of these and related studies, Landau, Sullivan, & Solomon (2010) have discussed, but not yet tested, the ability of artwork (regardless of specific medium) to bolster faith in CWVs and temper fears of mortality through aesthetic experiences.

The goal of the current research is to use the theories and methods of TMT to begin to answer the questions regarding aesthetic experiences within fictional literature that have yet to be addressed in Miall and Kuiken's Reader Response work (2004). In general, the ability of fictional stories to elicit aesthetic experiences may function to bolster CWVs and serve as an impetus for alleviating unconscious mortality fears. Specifically, the proposed studies are intended to merge the methodologies of TMT and Miall and Kuiken's research to determine if aesthetic experiences can serve to protect the self from death-related anxiety.

CHAPTER 2. LITERATURE REVIEW.

To consider oneself a useful, valued, and contributing member of some sort of meaningful system is a staple of both the optimistic, growth-focused humanistic psychology and the more nihilistic, avoidance-focused existential psychology. For the humanist, striving to be all you can be by realizing your full potential (self-actualization; Maslow, 1968), seeing yourself as one part of a highly integrated world (Individuation; Jung, 1981), and contributing to this world without being controlled by it (Self-Determination; Deci & Ryan, 2000) is the ultimate goal in life. Although these processes are fully acknowledged, the existentialist reminds us that there may be no one true meaning at all, but rather these strivings serve the purpose of keeping us functional in this potentially meaningless existence (Frankl, 1946; Solomon, et al., 2004).

Many symbolic systems have developed across time and culture to satisfy this dual motivation of approaching self-actualization while avoiding the terror of mortality, from religions (Maslow, 1968; Vail, et al., 2010) to political affiliations (Weise, et al., 2008) to sports-team identification (Dechesne, Greenberg, Arndt, & Schimel, 2000). One area in particular that has received only minimal attention is the role that art can play as one of these systems, or perhaps a part of these systems that allows for momentary verification of one's connection to the world. In particular, art may make possible experiences that support one's journey towards growth, while simultaneously allaying one's fears of annihilation, particularly due to art's ability to capture and communicate experiences and feelings common to the human experience.

Self Actualization and Peak Experiences

Although Maslow asserted the pessimistic estimate that only one percent of the population has achieved self-actualization, his theory does include the possibility for peak experiences, or momentary episodes of self-actualization, for all. These moments are characterized by instances of intense insight and joy. To understand the peak experience, it is helpful to consider the nine features Maslow theorized distinguish one of these moments, as summarized by Dennis & Powers (1974):

- 1) The universe is perceived as all of one piece, and the individual feels he belongs in it - everything seems to hang together.
- 2) The person, in a sense, surrenders and submits himself to the experience.
- 3) Perception in the peak experience is childlike in that the experience continues to be as fresh and as beautiful as if it were the very first time
- 4) Self-validating moment - so valuable as to make life worthwhile by its occasional occurrence.
- 5) The experience is welcomed as an end in itself rather than a means experience.
- 6) Sense of timelessness and spacelessness
- 7) The whole of reality in such moments is perceived as only good and desirable, with never an element of evil or pain.
- 8) The person himself becomes more integrated by a momentary loss of fear, anxiety, defense, and control - he becomes more his real self and feels that he is the creative center of his own universe.
- 9) Through continued peak experiences the individual becomes progressively more loving, honest, and unmotivated. (p. 59)

Put together, a peak experience can be identified as an awe-inspiring moment when a person can transcend the mundane experiences of his or her life and realize the sublime beauty of the existence of which they are a part.

Maslow identified two types of needs of the self-actualized person, and the temporary meeting of these needs can be seen in the distinguishing features of peak experiences above: cognitive needs and aesthetic needs (Dennis & Powers, 1974). The cognitive needs would be one's search for meaning and understanding of the world. This concept has been well-integrated into psychology, discussed not only by the humanists and existentialists, but also by cognitive and social psychologists. Whether through predictability (Seligman, 1975) or a desire to engage in analytic thinking (e.g. Need for Cognition; Cacioppo & Petty, 1982), there is general agreement that humans prefer and can cope better in structured environments in which they can make sense and understand their environment. Maslow's other need, however, was left rather vague and undefined. Aesthetic needs, in true humanistic fashion, seem to be a need to see beauty in the world and a need to find some sort of joy in this meaning one has constructed (Dennis & Powers, 1974). Having meaning is not sufficient for the fully self-actualized person; there must be some rewarding aspect in that system, something pleasurable to approach. This can be identified in the peak experience features that relate to a loss of fear and anxiety and the perception of the world as good and desirable.

Although Maslow's specific concept of aesthetic needs was not fully theorized, many others have studied aesthetics. In his own theory of experience, John Dewey (1934), one of the founders of pragmatism and functional psychology, identified a type of experience which he called the 'aesthetic experience.' Despite his focus on and the link to art, Dewey asserted that these experiences were not limited to interactions with such media. Dennis and Powers

(1974) summarize Dewey's view: "Aesthetic experiences are not to be found only with respect to art, but also within more ordinary circumstances and conditions that are not usually regarded as aesthetic" (p. 53). To further delineate the type of experience in question, Dewey identified three denotations of 'experience': 1) everyday interactions with the environment (the common, lay use of the word 'experience'), 2) particular interactions that have a meaningful quality, and 3) instances when lines between the external and the internal are blurred. This third type of experience, though intentionally left vague in its description, has been identified as being similar to, if not synonymous with, Maslow's 'peak experience' (Dennis & Powers, 1974). In attempts to further illustrate this special type of experience, Dennis & Powers state: "this quality does not lend itself to description. It is what it is: a product of continuous and cumulative interaction of the organic self with the world, and it is this undefined quality of the elements that makes it whole" (p. 52).

In essence, the aesthetic experience occurs when the self and the external object are merged, when one feels truly integrated with the world at this moment. In the language of Maslow, the fully self-actualized person would feel this way at all times. The 99% of us who have not achieved such satisfaction, however, are lucky enough to have fleeting moments of this experience, through peak experiences, which support our psychological growth.

For many years, I have thought and taught that experience is an interaction between the self and some aspect of its environment. Purposeful, intelligent action is the means by which this interaction is rendered significant. In the course of such action, objects acquire meaning and the self becomes aware of its own powers, since, by intelligent control of the environment, it directs and consolidates its own capacities. Purposeful action is thus the goal of all that is

truly educative, and it is the means by which the goal is reached and its content remade. Such activity is of necessity a growth and a growing.

(Dewey, 1935, p. vii.)

Although Maslow and Dewey, as well as others, assert that these aesthetic experiences (using Dewey's vocabulary) are not limited to the realm of artwork, the investigation into this particular realm is not foreign. Since Aristotle's expository on tragedy, the quality of allowing oneself to make the art come to life by the blurring of reality lines and realization of certain feelings (e.g., catharsis) has been recognized as an important feature of aesthetics. Even though the artwork (i.e., painting, ballet, and story) may be overtly presenting a work of fiction, or a place and time removed from the current moment, it is the sense of familiarity that allows for the opening of the mind for greater understanding about the world and oneself. For example, although we may have never travelled the desert to escape one's fate, as Oedipus did, only to find we have murdered our father and married our mother anyway (Sophocles, trans. 1947), we can feel the pangs of Oedipus' anguish resonate within us. We may have never gouged our eyes out, or wished to, but we do not look upon Oedipus with indifference or mere sympathy as he does so. The lines between his fictional world within Ancient Greece and our modern existence become fuzzy; perhaps in all practical matters it is foreign, but the feelings of the story are altogether not.

Confronted with certain literary themes, I may say immediately that they are not familiar to me. Yet I may experience within me a vibration of emotional recognition which tells me that I have somehow known them always. They seem to appeal to an undercurrent of my slumbering experience and most intimate emotions. (Van Kaam, 1968, p. 227)

Although these aesthetic experiences may occur with any art, or in any life moment for that matter, stories, whether presented through verse, prose, or even, perhaps, film, offer a unique ability for greater integration between the self and the object through more opportunities of recognition and realization. When listening to a piece of music or viewing a piece of art, the audience is left to ponder the artist's intentions and to infuse interpretation that is limited by the medium itself. Story, however, presents the audience with an abundance of information through which many interpretations are possible as we not only see the protagonist's behavior, but perhaps have added insight into the protagonist's motivations, influences, and circumstances. Through these recognitions, the audience has even more opportunity to blur the lines between the work and reality:

The final touchstone of greatness for a drama or novel is the immediate, intimate experience of its reader. It is as if I have deep within me some lived experience of the fundamental themes of human life. This potential experience is, in a sense, a predisposition for encounter with great literature. The evocative power of certain themes and images created by the masters makes me aware of what I have already experienced somehow in my encounters with my fellowmen. I have been unable of myself to bring this dimension of my personality to full awareness or dynamic expression. I must be confronted with an artist's image of what I have once experienced, as it were, in order to be moved emotionally by my own latent understand of humanity. And this image must be presented to me in an atmosphere, a setting, a world which is not the world of my everyday life. (Van Kaam, 1968, p. 226-87)

Despite the clarity that such anecdotes offer about the reader's experience, the empirical research into story is only just beginning and currently limited to the media of short stories and novels.

Phenomenon of Reading

Although many have pondered this experience, the recognition of something familiar in art and the realization of something co-occurring within oneself, there has been little scientific research studying this phenomenon. The little work that has been conducted has come out of the phenomenological studies of reader experience (see Miall & Kuiken, 2004), which began as an empirical investigation into the actual experiences of readers, rather than the hypothesized ideal that most literary criticism is based on (Miall, 2006b). Given the prominence of discussion on aesthetic experiences throughout time and across disciplines, it is unsurprising that the empirical investigation of literary reading has also begun to branch into these transcendental moments. The largest contribution of this research area, however, has been the establishment of empirical methods that can serve as the building blocks to measure these experiences objectively. Utilizing a numerical approach to phenomenological studies (Kuiken & Miall, 2001), types of feelings have been categorized and operationally defined, including feelings related to aesthetic encounters and peak experiences.

The cornerstone of this empirical approach to literary reading is the emphasis of feeling over cognition in experience and the identification of four types of feelings that can be elicited while reading a story: evaluative, narrative, aesthetic, and self-modifying (Kuiken, Miall, et al., 2004). The emphasis on the affective rather than cognitive component in the experience is appropriate given the repeated expression that aesthetic encounters/peak experiences cannot be fully cognitively articulated (Dennis & Powers, 1974). This focus is

also important for the distinction in the experiential rather than interpretive component of literary reading that is generally considered in literary studies (Miall, 2006b). It is the subjective quality of these experiences that simultaneously makes them powerful but hard to measure objectively. Nevertheless, this difficulty has not proved to be an impossible barrier as Kuiken & Miall (2001) have creatively adapted both qualitative and quantitative methods to operationally define the feelings in question.

The first type of these four feelings, and the most basic of them, are evaluative feelings and defined as feelings and attitudes towards the text as a whole (Kuiken, Miall, et al., 2004). Although certain parts may have been more emotional than others, it is the cumulative feeling and opinion that is of interest. These are generally the feelings about stories dealt with on a daily basis, as one is often asked “What did you think of that story?” Our responses are often in the general form, stating we liked or disliked the book in the form of an attitude or expressing that the book made us laugh or cry, showing an emotional response to the story as a whole.

Narrative feelings are responses to particular aspects of the story: the plot, the characters, and the settings (Kuiken, Miall, et al., 2004). We may use these pieces of information in the establishment of our evaluative feelings, but they are markedly different. These important features of narrative feelings are the identification of some aspect of the story (plot, characters, etc.) and one’s emotional reaction to it. These emotions could be attitudinal in form, as in general positive or negative feelings. For instance, one may not have a strong emotional reaction to the antagonist of the story, but they may have the attitude that they do not like the characters. Additionally, narrative feelings include actual emotional responses either in line with or about the character’s own experience. If the protagonist is

feeling sadness because of the events in the story, a narrative feeling in the reader could be empathizing with the character and feeling sad as well about the events in the story or sympathizing and pitying the character's response. Finally, narrative feelings can be the reader's own emotional reactions, independent of what the characters may be feeling. For instance, a description of a dark, creepy place could elicit a feeling of fear in the reader, even if there is no character in the story at this point with whom to compare one's feelings.

Compared to the other types of feelings, aesthetic feelings tend to be the most disconnected from the story itself but still capable of eliciting strong reactions in readers (Kuiken, Miall, et al., 2004). It is important to note that the use of the term 'aesthetic' in this context is not synonymous with the transcendental experiences discussed earlier. Here, 'aesthetic' simply refers to the formal qualities of the medium; perhaps best understood as the 'artistic' features. In a story, the 'aesthetic' or 'artistic' features would be the way language or literary devices are used in telling the story. Prose versus verse, use of metaphor, intentional misspellings, or allusions are all examples of the features referred to in the defining of aesthetic feelings. In particular, it is any emotional reaction that comes about as a result of the artistic form itself, rather than the content of the work. The way the author uses description to put the reader in the scene or convey the atmosphere of the moment and metaphors that catch the reader off-guard and make them re-read passages for greater understanding are examples of aesthetic feelings, as defined by this area of research.

In contrast to aesthetic feelings, the self-modifying feelings are defined as moments when the lines between the self and the story are blurred, simultaneously recognizing something familiar and realizing something about themselves (Kuiken, Miall, et al., 2004).

What set self-modifying feelings apart from the other three are the strong implications of the

self within the story and the incorporation of experiences external to the story within the feelings. Unlike narrative feelings, self-modifying feelings are about the self as much as they are about the character or story elements. Additionally, the reader is reflecting not only on the events within the story, but connecting them to something in his or her own life or to human life in general.

To recognize self-modifying feelings objectively, two types of responses have been identified that fall within this category: similes and metaphors of personal identification (Kuiken, Phillips, et al., 2004). Similes of personal identification are when the reader explicitly recognizes something familiar about the character or story, in the sense that they have experienced that before or it reminds them of an actual previous experience. The reader recalls something within their own life that allows them to identify with the story. In empirical investigations of self-modifying feelings, participants are asked to reflect on and describe their reactions to moments in the story. To measure the occurrence of similes of personal identification, responses are coded as such when they contain the following characteristics: the use of the first-person to implicate the self, the use of third-person to refer to a character in the story, the use of a comparative statement (i.e. ‘This reminds me of...’, ‘This is like when...’), and the identification of the comparison being about character traits, actions, motives, thoughts, attitudes, or feelings (Kuiken, Phillips, et al., 2004).

Metaphors of personal identification, however, are not as explicitly comparative, just as general metaphors are less explicitly comparative than general similes. Similes identify two objects as being like, or similar to, each other. Metaphors, on the other hand, eliminate the direct comparison and instead indicate that two instances are merely co-members of a larger, more encompassing group. In the metaphor “the snow was a blanket upon the

ground”, the snow is stated as being a blanket, though the practical part of our mind knows that the snow is not *actually* a blanket. Instead, the use of metaphor conjures the knowledge that both the snow and a blanket are exemplars that belong to a larger, more encompassing category that both may fall under and therefore share characteristics.

In this same way, metaphors of personal identification are moments when the reader acknowledges familiarity with a character in the story, not because they are *like* each other, but because both belong to a larger, more encompassing group and therefore share characteristics (Kuiken, Miall, et al., 2004). The lines between the story and the self become truly blurred as the experiences in the story can be realized as past or future experiences of the self. Although not previously linked to these ideas explicitly, metaphors of personal identification describe something similar to, if not identical to, Dewey’s aesthetic experiences and may describe one type of Maslow’s ‘peak experience,’ as Dewey’s concept does as well. It is the use of the story as the medium, just as any art serves in Dewey’s aesthetic experiences, which allows for one to realize one’s integral relation to something greater – the sublime quality of peak experiences. As with similes, metaphors of personal identification have been operationally defined based on the language used in reader’s discussions of their feelings regarding parts of the story. A reaction is coded as a metaphor of personal identification when there is the use of the first-person to describe the self, the use of third-person to describe the character(s), the use of the pronoun ‘you’ to indicate a shared experience, and the use of the present tense in conjunction with the pronoun ‘you,’ suggesting the shared experience is enduring (Kuiken, Phillips, et al., 2004).

Unfortunately, the use of these empirical methods to code reader experiences with reading has not, of yet, been used to investigate more fully the psychological aspects of self-

modifying feelings and their potential relation to aesthetic experiences. The majority of the empirical investigations into literature that have used such methods have been focused on understanding *how* formal features of the story elicit these feelings by trying to isolate which phrases, descriptions, words, etc, have particular impact on reader's feelings. The research has begun trying to answer *why* literature has remained an important part of culture across time, utilizing an evolutionary approach (Miall, 2006a); however, this also focuses on the formal features of reading and writing, emphasizing the functions of literature to aid communicative and cognitive development. The psychological implications of these feelings, such as the lasting effects of self-modifying feelings and if there is any psychological *why* to literary reading, have yet to be explored. In other words, what purpose do self-modifying feelings serve?

Terror Management Theory

Fortunately, psychology can offer some meta-theories that may be used to address these functional questions of literary reading and, particularly, self-modifying feelings. Following the humanistic tradition, Maslow's self-actualization theory posits that all humans are motivated towards positive growth and that peak experiences are building blocks towards this achievement (1970); therefore, aesthetic experiences with stories may facilitate this process of growth and sublime integration. This, however, does not fully offer a truly functional answer regarding aesthetic experiences, or peak experiences in general: aside from a natural human striving, why do we *need* to work towards actualization?

To answer this question, we can gain insight from Terror Management Theory (TMT), an empirical hybrid of social and existential psychology (Solomon, et al., 2004).

With its focus on finding functional qualities according to the stringent empirical process of

social psychology, but guided by the greater functional questions posed by existential psychology, TMT provides an answer to asking why people actualize, and may potentially offer insight into why we have aesthetic experiences.

Following an evolutionary psychology approach, TMT posits the following conundrum that can serve as a powerful, unconsciously motivating force in humans. As man evolved, more complex brain functions developed setting him apart from other animals. One such process, the ability to be self-aware, is proposed to be truly unique to human beings and allows for meta-cognitive functioning. One consequence of this development, however, was the ability for man to realize that he was mortal; one day he will die, and not only that, but he cannot predict when this will happen (Pyszczynski, 2009). He may live to a ripe old age and die peacefully in his sleep, but observations of the world around him give the indication that this is not likely. Not only does he not know if he is going to die in twenty years or twenty minutes, he doesn't know how he is going to die. These infinite possibilities of when one's own annihilation will come are potentially terrifying and could easily render man useless: paralyzed by fear and unable to function. From an evolutionary perspective, this is anything but adaptive for species survival, the main function proposed by this particular meta-theory.

To overcome these powerful anxieties, and escape from an existential depression of meaninglessness, TMT argues that man developed certain psychological mechanisms to cope successfully with this underlying fear and once again be a functioning member of the human race, contributing to and supporting species survival (Solomon et al., 2004). The first of these important mechanisms is the development of a cultural worldview (CWV). The CWV is a shared set of beliefs that include three important features: meaning for the origin and nature of existence, a set of principles to live by, and a promise of immortality to those who

successfully adhere to said principles. While TMT does not constitute what this meaning of existence is, often taking a traditionally nihilistic approach that there is no great and ultimate meaning, it does not deny the claim others have made that man needs some sort of meaning, or way of organizing and understanding the world (for more on meaning see: Frankl, 1934; Campbell, 1988).

Regarding the concept of immortality, CWVs can provide this in two ways: literal and symbolic (Solomon et al., 2004). Literal immortality is the promise of an afterlife, such as is offered by many religions. Symbolic immortality is the notion that some part of the self will continue to live on after one's death, be it name, genes, or some other aspect of one's legacy. Additionally, symbolic immortality can be achieved by integrating one's self into a system that will survive longer than the human lifespan. Being a member of a certain group or being strongly associated with something that will endure through history can be enough to serve as symbolic immortality, such as being a devoted fan of a particular sports-team (Dechesne et al., 2000). Nevertheless, the promise of immortality, literal or symbolic, is not necessarily guaranteed by the CWV. The set of principles to live by is a very important aspect that is used to deem who is worthy of this immortality. Many religions make promises of wonderful afterlives, but only if the rules of conduct are strictly followed. Similarly, symbolic immortality must be earned, rather than merely granted. Whether you want your name to go down in history as a great researcher of the 21st century, or the biggest sex symbol of this era of Hollywood, certain guidelines must be followed to achieve this. If the symbolic immortality promised to you is the legacy of your genes and family name, this requires the proper channels to conceive children and ensure their safety.

The importance of these principles within the CWV relates to the second important psychological mechanism posited by TMT to have evolutionarily developed as a way to functionally cope with death anxiety: self-esteem. Although self-esteem has been described by many researchers and defined in various ways, TMT contends that self-esteem serves as a monitor for how well one is adhering to and being a valuable, contributing member of one's CWV (Solomon et al., 2004). In a sense, self-esteem serves as the feedback system to provide information if one is following the principles that will lead to the promise of immortality. If one is failing to be accepted or is not considered valuable by society, this lowers self-esteem. This, of course, is not a novel idea about self-esteem as self-esteem serving as a monitor in this way has been theorized by many (Leary, Tambor, Terdal, & Downs, 1995; see also Baumeister, 1998). What is uniquely offered by TMT, though, is the unconscious component that lowered self-esteem is unwanted because it is indicative that one is not on the path towards the promised form of immortality, and thus one's death will truly and completely mean one's annihilation (Pyszczynski, Greenberg, Solomon, Arndt, & Schimel, 2004).

The question of whether there is absolute truth behind these meanings and the existence of something truly sublime is beyond the scope of this paper, and beyond the scope of scientific psychology; however, the existence of these socially constructed systems of meaning as psychological mechanisms to cope effectively with the terror of death and annihilation is one that can be effectively be explored through empirical means. Through over 400 empirical studies across 27 different countries, hypotheses based on TMT have been supported suggesting that, regardless of whether there really is a larger meaning or not,

the psychological mechanisms that allow people to develop and adhere to a system of meaning functionally serve to help them cope with mortality fears (Pyszczynski, 2009).

Although these concepts of death anxiety and rules for immortality seem quite distant from the optimistic, meaning filled promises of actualization and growth theories, they can be linked in that the achievement of actualization, or ultimate growth, would be the epitome of adhering to one's CWV, fully satisfying one's esteem needs, and alleviating death anxiety. In essence, the aesthetic experience, or the peak experience, would serve its transcendental function by confirming the sublime meaning one has incorporated as their CWV. Consequently, by utilizing TMT, we may be able to answer the functional 'why' question of aesthetic experiences, particularly in the form of self-modifying feelings. It may be that one reason literature and story have endured across time and culture, in addition to functions of development, is to allow another means to create and bolster one's CWV and increase one's self-esteem through aesthetic experiences.

TMT and Aesthetics

Some research has begun within the realm of TMT regarding how these principles (death anxiety, CWV, and self-esteem) are connected to the appreciation of and reactions to art. The catalyst for some of this research is in trying to understand not necessarily why people enjoy some art, but rather why they dislike other art. Rather than simply being indifferent to some pieces, people often have strong negative reactions. Landau and colleagues (2006) hypothesized this dislike was simultaneously a result of and a coping mechanism for the particular work challenging or threatening some aspect of one's CWV. As has already been established, the CWV is the system of understanding the individual uses to protect himself from the terror that the realization of mortality can create. If this CWV

breaks down, however, then its protective function falters as well. To compensate for this, people often try to bolster the validity of their beliefs by either seeking information that confirms and restores their belief or by denigrating the source of the insult to lessen its effect (Arndt, Cooke, Routledge, 2004; Arndt, Greenberg, Pyszczynski, & Solomon, 1997; Greenberg, Proteus, Simon, & Pyszczynski, 1995).

To test his hypothesis about this reaction to art, Landau et al. (2006) conducted experiments utilizing the traditional TMT paradigm. The center of this paradigm recognizes that the complete test of the meta-theory TMT proposes – fear of death leads to creation of a CWV and related coping behaviors – is difficult, if not impossible, to achieve. To address this, though, TMT has a series of working hypotheses that are derived from the meta-theory and, importantly, testable (Pyszczynski, 2009). For their investigation into reactions of art, Landau et al. followed the mortality salience hypothesis. This hypothesis states that if bolstering and clinging to one’s cultural worldview is a defense for death anxiety, than reminding a person of their impending death (mortality salience) should increase the likelihood of behaviors related to the bolstering of and adhering to one’s CWV. In a way, the CWV serves as a sort of ‘secure base’, and when threatened, one ought to fight to return to this ‘secure base’. The paradigm for testing this hypothesis involves priming one group with death-related thoughts (mortality salience (MS) condition) while priming another group with equally stressful thoughts that are unrelated to death (e.g., dental pain). Both groups are then exposed to some dependent variable of interest. If the behavior in question serves a protective function, then the MS subjects should be more likely to engage in that behavior than the other condition.

To answer the question regarding reactions to art, Landau et al. (2006) conducted a series of experiments using the mortality salience paradigm to test if MS subjects would react more negatively to artwork that challenged a part of the CWV. The particular CWV aspect that the artwork was considered to threaten was the concept of understanding and ability to make meaning. Abstract art was used as the stimulus that may threaten this. Results of study one supported the hypothesis of denigrating threatening artwork in that participants in the mortality salience condition were more likely to rate a piece of abstract art more negatively than a piece of traditional art, as compared to participants who were primed for anxiety, but unrelated to death.

To investigate the important role of CWV in this process further, and in recognition of the limitation that there are a multitude of CWVs that any given person can construct, the role of a moderator was considered. In particular, participants were divided into high and low personal-need-for-structure groups. Personal Need for Structure (PNS; Thompson, Naccarato, Parker, & Moskowitz, 2001) is an individual difference construct regarding the need for simple structures in which to understand the universe. Some individuals do not require the principles governing their world to be simple, whereas others hold this expectation as central to their CWV. Results supported the CWV hypothesis in that High-PNS participants in the MS condition disliked the abstract art more than High-PNS participants in the other condition and Low-PNS participants showed no difference in artwork preferences between conditions. In this way, the data suggest that, when primed with death, the abstract art was most threatening for those who need simple structures as part of their CWV.

Looking only at those participants high on PNS, Landau et al. (2006) continued to test the role of the threat to meaning and structure played by the artwork. Using the same mortality salience paradigm again, the art variable this time was merely whether the piece of abstract art was presented to the participant with or without a meaningful name, a title that could be used to understand and provide structure to the otherwise random use of color and lines. Replicating the results from the previous study, MS subjects disliked the nameless art more than participants in the other condition. Again, this supports the idea that death-anxiety plays some motivating role in these reactions. Extending from the previous study, however, study three also found that MS subjects disliked the nameless art more than MS subjects who were given a title with the art work. This title, it seems, allows the High-PNS participants to discern some structure from the artwork, thus lowering its threat and the need to denigrate it.

This research into attitudes about abstract art from a TMT perspective provides a clear use of the mortality salience paradigm to test hypotheses derived from TMT theory, as well as a first look at how other researchers are studying viewer's reactions to art. Nevertheless, this look is only interested in those initial impressions and attitudes regarding the artwork as a whole. In essence, this is looking at the role of TMT and evaluative feelings, the concept used in literary research to describe attitudes towards the overall piece (Kuiken, Miall, et al., 2004). Examining meaning and abstract art, however, has not yet gone deeper into the viewer's experience to understand any other feelings and potential TMT reasons for them.

Landau, Sullivan, & Solomon (2010), however, have theorized that art can serve both sublime and terror management functions. Two of these functions are more directly related to the issues of death and immortality. Specifically, they propose that art (including story)

can serve as a way to transform the meaning of death. For instance, if the fears are specifically related to the process of death, vicarious experiences through art and story can allow one to contemplate it safely and, perhaps, face one's fear. Additionally, art and story can provide a system of meaning behind death that can, again, be contemplated in a safe zone. A second function of art, particularly for the artist rather than the viewer, can be its own form of symbolic immortality. Great works of art may become a part of history, allowing the artist's name as well as his ideas to live on.

Art can additionally serve the larger, more unconscious process of creating and bolstering one's CWV (Landau, Sullivan, & Solomon, 2010). Finding artwork that melds with one's own ideas of how the world works, perhaps feeling the author or artist is 'speaking directly to you,' can serve as strong validation for one's beliefs. Confirmation of the CWV implies confirmation of the immortality promises connected with the CWV. Similarly, art may function to make the socially constructed system of beliefs more concrete. Seeing the symbols of the system can help in the understanding of the principles connected to one's beliefs. Furthermore, aesthetic engagement allows for the viewer to expand not only their understanding of the physical world, through exposure to a diversity of ideas, but also the expansion of the self. In fact, Landau, Sullivan, & Solomon (2010) suggest that aesthetic engagement allows for one to feel completely alleviated of mortality concerns through these feelings of connection to something greater.

This aesthetic engagement described by Landau, Sullivan, & Solomon (2010) is very similar to Maslow's peak experience (1968), Dewey's aesthetic experience (1934), and the self-modifying feelings described by Kuiken, Miall, et al. (2004). Each of these focuses on the moments of sublime awe and beauty when one feels connected to something greater.

Although not specifically articulated, it would not be hard to conceive that a freedom from mortality concerns, as discussed by Landau and colleagues, would be similar to the strong, optimistic feeling of beauty put forth by Maslow as an important component of peak experiences. One of the principles of peak experiences, in fact, includes the freedom from anxiety; freedom from mortality concerns would certainly be included. Combining the theories of Maslow and Dewey with the empirical literary work of Kuiken and Miall and the contributions of Landau et al.'s work and theory of artwork within a terror management framework, it seems that one of the important evolutionary functions of artwork (regardless of medium) may be to serve as a catalyst for aesthetic experiences that allow for the momentary alleviation of mortality fears.

One study, within the realm of terror management research, supports this hypothesis. Interested in the service of art for the purposes of transmuting the meaning of death, Goldenberg et al. (1999) used tragic literature and a mortality salience paradigm to explore this possibility. Specifically, the researchers hypothesized that “If tragedy functions to provide a safe vicarious expression of the fears associated with one's own death, then reminders of mortality should heighten the appeal of tragedy” (p.318). Unlike Landau, Sullivan, & Solomon, (2010), Goldenberg et al. used a greater variety of dependent measures to discern the ‘appeal’ of tragedy rather than just measuring reader’s evaluative feelings. The dependent variables included four subscales: emotional response to the story, enjoyment/appreciation (similar to Miall and Kuiken’s evaluative feelings), liking/caring for the female protagonist, and liking/caring for the male protagonist (both of which touch upon Miall and Kuiken’s narrative feelings concept).

Participants were subjected to the usual TMT mortality salience manipulation (primed for either death related thoughts or other anxiety producing, but not death related, thoughts). Within each of these conditions, participants were instructed to read either the last few pages of *A Farewell to Arms* (deemed the tragic stimulus) or the last few pages of *The Sun Also Rises* (the neutral stimulus). Overall, participants preferred the tragic story to the neutral story, regardless of manipulation; however, among participants who read the neutral story those in the MS condition rated the story as less enjoyable than those in the other condition. This is in support of their function of tragedy hypothesis by suggesting that participant may have denigrated the story that did not provide them with effective coping opportunities, as the tragic story may have with its function of transmuting the meaning of death.

The emotional subscale, however, showed a different pattern of results. Again, the tragic story was rated more emotional, regardless of manipulation; however, there were no differences in emotional response among those who read the neutral story, but the MS subjects reported significantly more emotion to the tragic story than the non-MS subjects. Although outside their expectations for the study, Goldenberg et al. (1999) attempted the following explanation for their results:

The current findings showing that individuals responded to tragedy with a heightened emotional response to a literary portrayal of death and tragedy suggest that subtle reminders of death may prepare the individual for some kind of emotional reaction. Although this emotion does not usually manifest itself, when provided with an emotion-appropriate stimulus, individuals respond with an increased affective response to that stimulus. (p. 324)

Considering the previously presented research, it may be that this 'kind of emotional reaction' that is prepared for is an aesthetic experience that would allow for the fullest protection from death anxiety: alleviation of morality salience and transcendence of self.

Individual Differences

The research of TMT and Kuiken and Miall's reader response both emphasize the importance of personality characteristics in certain types of experiences. Although TMT posits that everyone will depend on a CWV to alleviate death anxiety, there is the acknowledgement that there is little ability to predict which CWV a given individual will choose to accept. Similarly, when threatened with mortality salience, TMT states that people will engage in behaviors that will bolster their faith in their CWV; however, not everyone will engage in the same behaviors to accomplish this. It is the incorporation of individual differences that is needed to fully understand what an individual will find threatening and what coping strategy they will choose.

The personality characteristic(s) necessary to consider when predicting these components of coping with death-anxiety ought to depend on the content of the CWV and the context of the threat. TMT researchers have often used PNS (Thompson, et al, 2001) as an important individual difference to determine how one will react to mortality salience. In particular, PNS serves as a proxy for capturing CWVs that incorporate meaning and understanding as a core value. Following a mortality salience prime, people high in PNS find a lack of meaning more discomforting than when not primed with thoughts of death. Landau et al. (2006) supported this in his studies of abstract art. It was the people who were high in PNS, that desired some structure and meaning in their world, who were most affected by the mortality salience manipulation when presented with abstract art. Specifically they

disliked the abstract art the most, especially when there was no context they could use to imbue any sense into the piece. Participants low on PNS, however, were unaffected by the mortality salience manipulation when it came to preferences for meaningful or meaningless artwork.

In the realm of literary studies, Kuiken, Miall, et al. (2004) have found that the ability to become absorbed into the story is related to particular types of experience with a story. This concept of absorption is not foreign to either literary or psychological research, as it has also been studied under various titles, including absorption (Tellegen & Atkinson, 1974), flow (Csikszentmihalyi, 1990), and transportability (Dal Cin, Zanna, & Fong, 2004). Although Tellegen & Atkinson's absorption and Csikszentmihalyi's flow incorporate a wide range of experiences, beyond experiences with art, they focus on instances of losing a sense of time and space and becoming fully engaged in a given activity. Transportability, however, specifically addresses experiences with story, whether in books or films. As the characteristic of PNS is appropriate for Landau et al.'s (2006) investigation into abstract art, transportability is particularly relevant for questions of self-modifying feelings and aesthetic experiences. In particular, because these experiences are defined as incorporating a blurring of the lines between one's self and the story, one's ability, or likelihood, to blur these lines is important. Kuiken, Phillips, et al. (2004) have identified that those participants who score higher on the Tellegen Absorption Scale are more likely to have experiences related to expressive enactment (their term similar to aesthetic experiences). It may then be that the personality characteristic of absorption would be an important variable to consider when predicting who will utilize stories as an effective coping mechanism against mortality salience.

Current Studies

The current research is an initial test of the theory that the ability of literature to elicit aesthetic experiences, in the form of self-modifying feelings, serves a protective function against death anxiety. Utilizing the theories and methodological paradigms of Miall and Kuiken's reader response work and incorporating those of TMT will hopefully be able to provide some more empirical foundations in the exploration of aesthetic experiences.

Additionally, the current research will be contributing to the different literatures simultaneously: providing needed empirical work on the theories of aesthetic experience, expanding the literary research by addressing questions of psychological functioning, and developing more of the TMT research on art with a more in-depth look at fiction and consideration of psychological reactions beyond attitudes.

The current investigation also hopes to push the boundaries in this area by expanding the medium under investigation to television. Miall and Kuiken have focused exclusively on short stories and novels as the medium of their narratives. The terror management investigations have currently explored painting, sculpture (Landau et al., 2006), and novels (Goldenberg et al., 1999). The visual medium of motion picture (i.e. films, movies, television) has yet to be explored as a medium for aesthetic experience, though it's potential for such is likely as the first discussions of the integration of self and story were about theatre (Aristotle, trans. 1996).

Finally, the current study will build off of the individual difference considerations of both TMT and reader response theory. As discussed by TMT, it would not be expected that everyone would experience an aesthetic experience with a text, even when followed by a mortality salience manipulation. Rather, following from the literary research, it may be that

those people who are higher in absorption, or more inclined to transport their selves into a story, are the ones who will utilize aesthetic experiences, as measured by self-modifying feelings, as a coping strategy against death anxiety. Although it is beyond the scope of the current investigation to question how absorption and/or transportability factor into specific CWVs and potentially provide access to a type of immortality, initial support that such personality characteristics are related to a particular reaction towards mortality salience may serve to facilitate future research to answer such questions and further combine the research of literary experiences and TMT.

CHAPTER THREE: STUDY 1

Overview and Hypotheses

Using the mortality salience hypothesis of TMT, study 1 investigated the theory that aesthetic experiences with stories can serve as a way to cope with death anxiety. The mortality salience hypothesis suggests that reminders of death will increase the need to bolster one's CWV (Pyszczynski, 2009). If aesthetic experiences, or self-modifying feelings, allow for this bolstering, then reminders of death should increase the likelihood that one will have such an experience. Similarly, if self-modifying feelings are most closely related to one's CWV, then this effect should only occur for these types of feelings. Furthermore, study 1 incorporated the concept of individual differences by using measures of absorption and transportability. Kuiken, Miall, et al. (2004) have discussed these characteristics as being of relevant concern to the study of literary experiences; specifically, people high on these traits are more likely to experience self-modifying experiences. These two constructs are often considered similar, if not interchangeable, so both were included to more thoroughly test the role of personality. Particularly the current study tested if people high on these measures may be more likely to use this as a coping mechanism when faced with mortality salience. The following hypotheses were proposed for study 1:

H1: More participants will experience self-modifying feelings following a mortality salience manipulation than a dental pain salience manipulation.

H2: There will be an interaction between individual differences in transportability and/or absorption and the manipulation, such that participants who are high on transportability and/or absorption will be the

most likely to experience self-modifying feelings following the mortality salience manipulation.

H3: The only difference between conditions will be for the presence of self-modifying feelings in reaction to the story, and not the presence of narrative, evaluative, or aesthetic feelings.

Methods

Participants

Students in introductory psychology and communication studies classes at a large Midwestern University participated for partial credit towards their class grade. Students in these classes were eligible if they were fluent in the English language and at least 18 years old. The language restriction was necessary as difficulty understanding the story may have impeded experiences and the dependent variable was determined based on the analysis of language used in open ended responses.

A total of 247 students participated in the study, but fifteen were dropped from analyses. Three participants were excluded because they were missing data due to experimenter or technical errors. Another two indicated during the debriefing session they had experienced difficulty following the directions on the questionnaire. One participant, despite recruiting only native English speakers, was not fluent in English. Finally, the remaining nine participants were dropped because they did not follow the directions when writing about their reactions to the story. For example, some participants wrote about every scene, rather than their top three most striking, whereas others only wrote about a single scene. Of these fifteen participants, eight were in the dental pain condition and seven were in the mortality salience condition, so there is little to suggest that these issues were condition-

specific. Of the remaining 232 participants, there were 152 females and 80 males with the majority indicating “white” as their ethnicity (89%). Ages ranged from 18 to 47 with an average of 19.7 ($SD = 3.4$).

Measures

Tellegen Absorption Scale (Tellegen & Atkinson, 1974). The Tellegen Absorption Scale is designed to be a measure of one’s openness to absorbing and self-altering experiences. It consists of 32 items for participants to rate on a 4-point scale, indicating the frequency with which they have had each experience from “Never” to “Always”. Items describe imaginative, aesthetic, or fantasy type of situations, such as “I think I really know what some people mean when they talk about mystical experiences,” “When I listen to music I can get so caught up in it that I don't notice anything else,” and “Things that might seem meaningless to others often make sense to me.” Previous studies using the TAS have reported high inter-item consistency (Kuder-Richardson 20 = .81 to .86) and high test-retest reliability (e.g. .92; as reported in Kuiken, Phillips, et al., 2004). The current study had acceptable internal reliability, $\alpha = .89$.

Transportability Scale (Dal Cin, Zanna, & Fong, 2004). The Transportability Scale is an adaptation of Green and Brock’s (2000) Transportation scale. Whereas the Transportation Scale is designed to measure various levels of engagement a reader/viewer had with a specific text, the Transportability Scale is an individual difference measure of experiences across stories and contexts. The scale consists of 20 statements following from the prompt of “When viewing for pleasure:” and each item is rated on a nine-point scale anchored from “strongly disagree” to “strongly agree.” Previous research with this scale has found moderate test-retest reliability, ranging from .62 to .64, and internal reliability ranging from

.83 to .88 (Dal Cin, Gibson, Zanna, Shumate, & Fong, 2007; Dal Cin et al., 2004; Greenwood, 2008). The current study had acceptable internal reliability, $\alpha = .81$.

The Positive and Negative Affect Scale – Expanded Form (PANAS-X; Watson & Clark, 1994). The PANAS-X is a 60-item measure of various affective states, consisting of 13 subscales: positive affect, negative affect, fear, hostility, guilt, sadness, joviality, self-assurance, attentiveness, shyness, fatigue, serenity, and surprise. Participants rate on a scale from 1 (“Very slight or not at all”) to 5 (“Extremely”) how much they are feeling a given feeling word (e.g. “cheerful”, “ashamed”, “irritable”). In the current study, as is standard in mortality salience studies, the PANAS-X served to confirm that there were no significant differences between the two conditions on mood. It is important that the only difference between the mortality salience and the dental-pain conditions are the content of the anxiety, not the presence of anxiety alone (Landau et al, 2006). Internal reliability for the positive affect subscale has been reported ranging from .83 to .90 and the negative affect subscale has been reported from .79 to .91 (Watson & Clark, 1994). Similarly, Watson & Clark (1994) report high convergent correlations (.90 to .95 for Positive Affect and .92 to .95 for Negative Affect) and low discriminant correlations (-.02 to .28 for Positive Affection and .00 to -.16 for Negative Affect). The current study had adequate reliability for both scales: $\alpha = .89$ for Positive Affect and $\alpha = .83$ for Negative Affect.

Viewer Reaction Questionnaire (VRQ). Modeled after similar questions in other studies of literary experience (Kuiken, Miall, et al. 2004; Kuiken, 2008), this scale was developed as a quantitative measure of literary experience. The questions attempt to determine the level of engagement the responder had with the story and if there was any involvement or realization of one’s own self with the story. The scale includes 13 items

rated on a 5-point Likert scale. All items are presented in Table 1. A factor analysis, described in the results section, was used to create a self-modifying feelings subscale (Factor 1 in Table 1). For the current study, the reliability of this subscale was adequate, $\alpha = .82$.

Table 1.

Factor Loadings of Viewer Reaction Questionnaire Items

Item	Factor			
	1	2	3	4
While watching this episode, I became aware of feelings about myself that I typically ignore (e.g., feelings of inferiority).	.81			
While watching this episode, I became aware of feelings that I typically ignore.	.77			
While watching this episode, I felt myself anticipating something that would happen in the future (e.g., something that might happen to me tomorrow).	.74			
While watching this episode, I remembered an event external to the episode (e.g., an event that occurred in my personal life).	.55			
While watching this episode, I felt like changing the way I live.	.53			
While watching this episode, I felt sensitive to aspects of life I usually ignore.	.52			
I had an impression of the feelings that were expressed/embodied in the episode.		.82		
While watching this episode, I had feelings in reaction to situations or events in the episode (e.g. feeling compassion for a character's frustration.)		.82		
There was a sense of resonance of my own feelings with those in the episode (e.g., feeling in myself the mood of a setting).		.78		
This episode provided a sense of letting go.			.88	
This episode provided a sense of release.			.86	
This episode provided a sense of being weak.				.83
This episode was discordant.				.81

Procedure

Prior to arrival in the laboratory, participants were randomly assigned to one of two conditions: mortality salience or dental pain salience. Aside from this manipulation, which will be discussed below, all other procedures and materials were identical for all participants.

Upon arrival, participants were given an informed consent document that explained the study was interested in personality characteristics and emotional reactions to a television episode. They were told an outline of all procedures, but no mention was made specifically to the mortality salience hypothesis, as awareness of this hypothesis may have elicited demand characteristics. It was emphasized to participants, though, that the experimenters are interested in capturing their natural reactions to the story so there would be no instructions on how to view the episode or need to focus on particular details.

After consenting to participate in the study, participants completed several personality questionnaires on a computer. These questionnaires included the absorption and transportation scales, the mortality or dental-pain salience manipulation, and the PANAS-X to control for mood, along with filler personality questionnaires to distract from the specific hypotheses of the study. Following these, the experimenter gave participants a short filler task, as is standard in the mortality salience paradigm because the paradigm works best when death thoughts are accessible but below awareness (Greenberg, Pyszczynski, Solomon, Simon, & Breus, 1994). In this particular study, participants were given a word search consisting of television show titles.

After working on the word search for five minutes, the experimenter returned to the participant and instructed them to watch a 28-minute television episode. They were reminded there were no specific instructions on how to watch the show, but to just relax and

enjoy the show. When the episode ended, the experimenter provided the participant with a packet consisting of still-frame pictures of the episode, arranged in a storyboard fashion, broken down into all 30 sequences of the story. Consistent with Miall and Kuiken's methodology, participants were asked to go through the packet and mark all passages they found to be particularly striking or moving. The experimenter was prepared to elaborate on the definition of striking as needed; emphasizing that it is any sequence to which the participant had a reaction. They were then asked to select the top three sequences, those that were most striking, and write in a blank Microsoft Word document any thoughts or feelings they had during that sequence along with a description of why it was striking. Again, the experimenter explained the goal of the study was to capture and understand their authentic experience. After completing this task, participants were given the VRQ, described as a short survey regarding their experience with the story, before debriefing and receiving their course credit.

Manipulation

Mortality Salience Manipulation. Embedded in the series of personality questionnaires for participants in one condition were two open ended questions regarding death (Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon, 1989). The first question asked participants to "Please describe the emotions that the thought of your own death arouses in you," and the second question asked participants to "Write down as specifically as you can, what you think will happen to you physically as you die."

Dental Pain Salience Manipulation. Questions that paralleled the morality salience manipulation were embedded in the series of personality questionnaires for those participants in the other condition. Specifically these questions asked participants to "Please describe the

emotions that the thought of having dental (oral) surgery arouses in you,” followed by “Write down as specifically as you can, what you think will happen to you physically when you have dental (oral) surgery.”

Story Stimulus

The television episode chosen as the stimulus was the episode “The Honk of Honks” from the show *Fraggle Rock* (Henson, Juhl, Stevenson, & Hunt, 1987). The television series *Fraggle Rock* was chosen for the likelihood that participants would not have previous exposure to the show, as the series ended in the Spring of 1987, and the majority of participants would have been born after the show went off the air and was not otherwise available until very recently. Although billed as a children’s television show featuring Jim Henson’s Muppets, the show was designed to appeal to and include themes relevant to both children and adults (The writing process, 2008). The specific episode “The Honk of Honks” was chosen for two reasons: the message and theme of the story is one that can easily resonate for adults, and there are no death-related references. This second reason is important so it would not confound the mortality salience manipulation.

Debriefing

Following the study, participants were asked if they had ever watched *Fraggle Rock* previously, and if so, if they could recall seeing “The Honk of Honks” episode. Additionally, participants were asked to guess the overall hypothesis of the study and further probed for suspicion of the mortality salience hypothesis. None of the participants mentioned death when guessing the true purpose of the study. Forty-two participants (18%) indicated they had or may have previously seen *Fraggle Rock*, and five (2%) recalled seeing or possibly seeing this particular episode. After these questions were answered, the experimenter fully

debriefed the participant on the actual goals of the study and addressed any questions or concerns they had about their research experience.

Results

Coding for Feelings

The content analysis used to code participants' responses to their three most striking sequences is fully described in Chapter 5. In addition to outlining the process used to determine what was coded, examples of the different categories are presented in this later chapter as well. The four feeling types of interest in study 1 were evaluative, narrative, aesthetic, and self-modifying, and these were coded only as being present or absent somewhere in the participants total response. Responses were coded for an evaluative experience when participants expressed a reaction to the entire show as a whole, rather than the particular scene or a part of the scene being described. Inter-rater reliability for coding evaluative feelings was acceptable, $\Phi = .90$.

In the content analysis, narrative reactions, or a response to characters, plot, or setting, were divided into reactions that used emotion-related words (narrative feelings) or thought-related words (narrative thoughts). Although Kuiken, Miall, et al. (2004) and Miall (2006b) emphasize affective over cognitive experiences, narrative thoughts still coded for experience rather than interpretation. Instead of using emotion-oriented words and phrases, such as 'moving' or 'I felt sad', narrative thoughts were coded when participants used words or phrases like 'interesting' or 'I didn't understand why.' For the purpose of study 1, narrative feelings and narrative thoughts were collapsed to reflect an overall narrative reaction. The overall inter-rater reliability for the combined narrative reactions was acceptable, $\Phi = .94$.

Similarly, the content analysis divided features of the episode to which participants could have an aesthetic reaction (adopting the vocabulary of Kuiken, Miall, et al., 2004): filmmaking, language, and literary elements. Aesthetic reactions to the filmmaking included responses about the use of Muppets, the music, the colors, and the acting. Reactions to language were specifically comments regarding the way language or particular words were used by the characters. Reactions to literary elements were responses regarding the use of devices, such as foreshadowing and symbolism, or plot development. For study 1, reactions to these aesthetic features were combined for a single aesthetic feelings category. The overall inter-rater reliability for aesthetic feelings was acceptable, $\Phi = .98$.

Metaphors of personal identification and similes of personal identification were also coded separately based on the strict criteria laid out by Kuiken, Phillips, et al. (2004). Responses were coded as a metaphor of personal identification only when all four of the following were present in the description of a single scene: the use of the first-person to describe the self, the use of third-person to describe the character(s), the use of the pronoun 'you' to indicate a shared experience, and the use of the present tense in conjunction with the pronoun 'you,' suggesting the shared experience is enduring. Similarly, responses for similes of personal identification required the presence of all four of the following: the use of the first-person to implicate the self, the use of third-person to refer to a character in the story, the use of a comparative statement (i.e. 'This reminds me of...', 'This is like when...'), and the identification of the comparison being about character traits, actions, motives, thoughts, attitudes, or feelings. For study 1, metaphors and similes were collapsed to create a variable representing the presence or absence of self-modifying feelings. The overall inter-rater reliability for self-modifying feelings was acceptable, $\Phi = .97$.

Preliminary Analysis

A preliminary analysis compared the PANAS-X scores of negative and positive affect across the two conditions as a check that the manipulations had no differential effects on mood. Independent t-tests were computed to test this; there were no significant differences between conditions on either negative affect, $t(230) = -0.73, p = .465$, or positive affect, $t(230) = -0.03, p = .973$.

Hypothesis 1

Hypothesis 1 stated that participants in the mortality salience condition would experience more self-modifying feelings than participants in the dental pain salience condition. A chi-square test did not support this hypothesis. There was no difference in the proportion of presence of self-modifying feelings between the two conditions, $\chi^2(1) = 0.35, p = .554, \Phi = -.04, \hat{p}_{DP} = .24, \hat{p}_M = .21$.

Hypothesis 2

Hypothesis 2 predicted that personality and the manipulation would interact, such that only participants high on transportability and/or absorption would use self-modifying feelings to cope with mortality salience. To examine this hypothesis, tests were conducted separately for transportability and absorption as they are correlated ($r = .32, p < .001$) but potentially different constructs of viewer engagement.

Due to the dichotomous nature of the coded self-modifying feelings, a binary logistic regression was conducted to test for an interaction between condition and personality. There was a marginally significant main effect of transportability, Wald $\chi^2(1) = 3.08, p = .079$, Odds ratio = 1.5, 95% CI [0.95, 2.37], and a significant main effect of absorption,

Wald $\chi^2(1) = 5.41, p = .020$, Odds ratio = 2.79, 95% CI [1.18, 6.6] but no significant main effect of condition or interaction in either model.

Hypothesis 3

Hypothesis 3 predicted that the difference between the mortality salience and dental pain salience conditions would only be for self-modifying feelings, rather than the other types of literary feelings: aesthetic, narrative, and evaluative. Chi-square tests were conducted separately for condition and each type of feeling. Although three types of aesthetic feelings were coded in the content analysis, these were collapsed for a single aesthetic feelings variable; similarly, the narrative thoughts and feelings categories were combined for a single item reflecting any reaction to the narrative. The tests were not significant for aesthetic, $\chi^2(1) = 0.51, p = .432, \Phi = .04, \hat{p}_{DP} = .48, \hat{p}_M = .52$, or narrative reactions, $\chi^2(1) = 1.1, p = .294, \Phi = .07, \hat{p}_{DP} = .84, \hat{p}_M = .88$. The chi-square test for evaluative feelings, however, was significant, $\chi^2(1) = 6.67, p = .01, \Phi = .17$. A greater proportion of participants in the mortality salience condition described some type of reaction to the entire show than participants in the dental pain condition, $\hat{p}_{DP} = .15, \hat{p}_M = .29$.

Alternative Dependent Variable

Study 1 also included methods to test Hypothesis 1 and 2 using a more standard self-report method of self-modifying feelings through the use of the Viewer Reaction Questionnaire (VRQ). A principal component factor analysis with a varimax rotation of the 13-items of the scale was conducted to isolate items related to self-modifying feelings. Four factors emerged with the first factor containing six items most representative of self-modifying feelings (see Table 1 above). As reported above, this subscale had adequate internal reliability, $\alpha = .82$. The second factor that emerged appeared to be representative of

more narrative or evaluative feelings - emotions that were elicited by the story or character but were particular to the episode only, $\alpha = .82$. The third factor consisted of two items referring to a sense of release or letting go, perhaps indicating a factor related to a cathartic experience, $\alpha = .88$. Finally, the last factor consisted of the two items expressing a negative reaction to the story, perhaps an overall dislike to the episode, $\alpha = .54$.

As the purpose of the scale in the current study was to provide an alternative, quantitative measure of self-modifying feelings, only the first factor was used in the remaining analyses. To validate that this subscale measures self-modifying feelings in the same way as the content analysis of self-modifying feelings, an independent samples t-test was conducted comparing participants who had a coded self-modifying feeling (either a simile or metaphor, identical to the variable used above) on their self-modifying feelings VRQ score. The average self-modifying feelings VRQ score was significantly higher for participants who were coded as having a self-modifying feeling than those who were not, $t(230) = 2.943, p = .004, M = 1.87, SD = 0.91, M = 1.49, SD = 0.8$, respectively.

As a second test of Hypothesis 1, an independent samples t-test was conducted on self-modifying feelings VRQ scores between the mortality salience and dental pain salience conditions. As with the analysis of the coded self-modifying feelings, participants in the dental pain condition had higher self-modifying feelings VRQ scores than participants in the mortality condition, but this difference was not significant, $t(230) = 0.923, p = .357, M_{DP} = 1.62, SD_{DP} = 0.87, M_M = 1.52, SD_M = 0.8$.

Linear regressions were conducted as an additional test of Hypothesis 2, regarding an interaction between condition and transportability/absorption using VRQ self-modifying feelings scores. Transportability, condition, and their interaction accounted for 5% of the

variance in self-modifying feeling scores. There was a marginally significant main effect of condition, a significant main effect of transportability, and a significant interaction between condition and transportability (Table 2). Furthermore, absorption, condition, and their interaction accounted for 11% of the variance in self-modifying feeling scores. There was a marginally significant main effect of condition, a significant main effect of transportability, and a marginally significant interaction between condition and transportability (Table 2).

To further interpret the significant interactions, the relations between each personality variable and self-modifying feelings were analyzed separately for each condition. There was not a significant relation between transportability and self-modifying feelings for participants in the mortality salience condition, $\beta = 0.02$, $t(109) = 0.16$, $p = .876$, but there was a significant relation between the two variables for participants in the dental pain salience condition, $\beta = 0.29$, $t(119) = 3.28$, $p = .001$ (Figure 1). Absorption and self-modifying

Table 2.

Regressions of Personality and Condition on VRQ Self-Modifying Feelings (N = 232)

Predictor	<i>B</i> (<i>SE</i>)	<i>t</i>	<i>p</i>	<i>Beta</i>	<i>B</i> 95% CI
Model with Transportability as Personality Variable					
Condition	1.27 (0.68)	1.88	.061	0.76	[-0.06, 2.60]
Transportability	0.25 (0.08)	3.33	.001	0.29	[0.10, 0.40]
Condition X Transportability	-0.24 (.012)	-2.09	.038	-0.86	[-0.47, -0.01]
Model with Absorption as Personality Variable					
Condition	1.06 (0.62)	1.72	.087	0.63	[-0.16, 2.28]
Absorption	0.65 (0.14)	4.68	.000	0.43	[0.38, 0.93]
Condition X Absorption	-0.37 (0.19)	-1.94	.054	-0.73	[-0.76, 0.01]

Note: CI = Confidence Interval, VRQ = Viewer Reaction Questionnaire

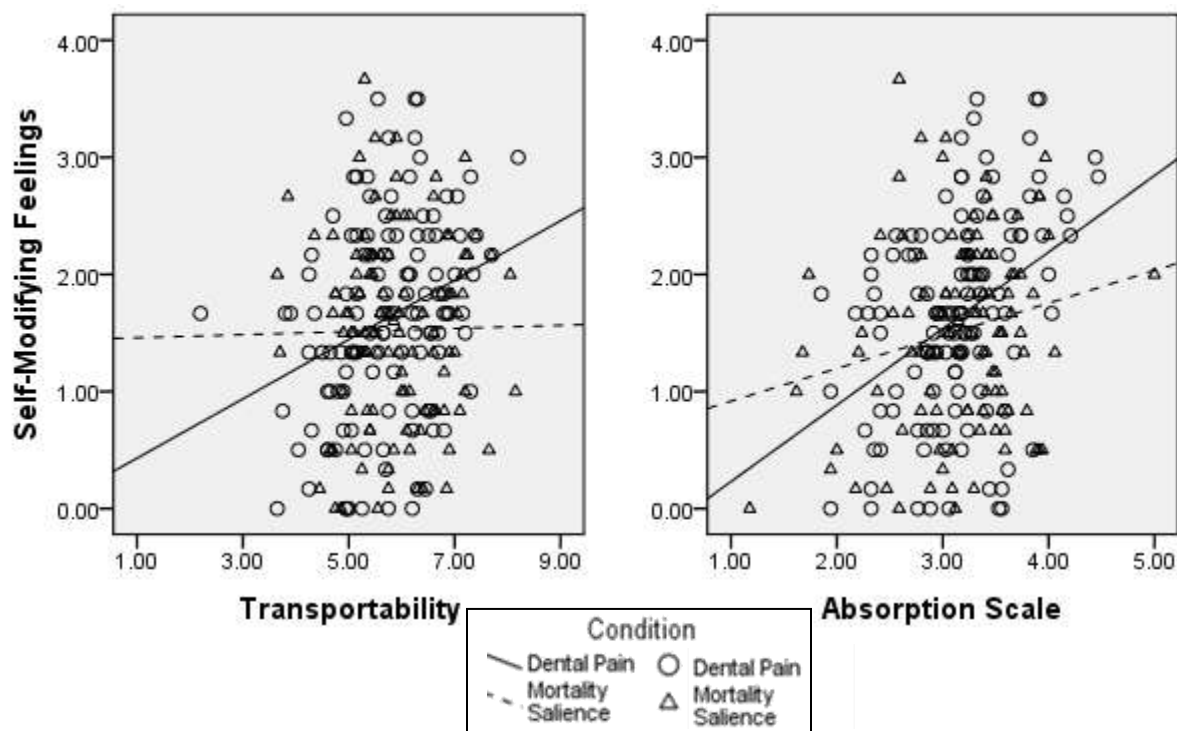


Figure 1. Scatter plots of personality by condition on VRQ self-modifying feeling scores.

feelings were significantly related in both conditions, but in the dental pain condition the relation was stronger, $\beta = 0.39$, $t(119) = 4.64$, $p < .001$, and the slope was steeper, $B = 0.65$, $SE = 0.14$, 95% CI [0.38, 0.93], than in the mortality salience condition, $\beta = 0.20$, $t(109) = 2.12$, $p = .037$, $B = 0.28$, $SE = 0.13$, 95% CI [0.02, 0.54] (Figure 1).

Additionally, a mean split was applied to both the transportability and absorption measures. There were no significant differences between the mean self-modifying feeling scores for the dental pain and mortality salience conditions for those participants with low transportability or absorption scores, $t(120) = -0.44$, $p = .663$, $t(104) = -0.57$, $p = .570$, respectively. For participants high on transportability, participants in the dental pain condition scored significantly higher self-modifying feeling scores than those in the mortality salience condition, $t(108) = 1.98$, $p = .050$, $M_{DP} = 1.83$, $SD_{DP} = 0.8$, $M_{MS} = 1.53$, $SD_{MS} = 0.79$.

Similarly, for participants high on absorption, those in the dental pain condition had significantly higher self-modifying feeling scores than those in the mortality salience condition, $t(124) = 2.20, p = .03, M_{DP} = 1.95, SD_{DP} = 0.91, M_{MS} = 1.63, SD_{MS} = 0.69$.

Discussion

The results of study 1 had mixed support of the hypotheses regarding the experience of self-modifying feelings. Consistent with previous research, there was a positive relation between the individual difference constructs of transportability and absorption with self-modifying feelings; however, there was not support for the hypothesis that the mortality salience manipulation would increase the likelihood of experiencing a self-modifying feeling. Instead, the data show that self-modifying feelings were more likely to occur in the dental pain condition, particularly for those participants high on transportability or absorption.

There are a number of possible explanations for the lack of support for the hypotheses of study 1. Given that there was no difference between the mortality salience and dental pain conditions in the experience of self-modifying feelings, as tested by hypothesis one, the first explanation could be that the manipulation did not work. The tests for an interaction between personality and condition on the VRQ measure of self-modifying feelings did reveal a difference between conditions, and there was no significant difference in positive and negative affect between conditions. If neither manipulation had worked, mortality nor dental pain salience, there should not have been any differences between conditions as the manipulation questions were the only procedural differences. Furthermore, if only one manipulation had worked, such that anxiety was only elicited in one condition, we should have seen differences in the negative affect measure. As neither of these conditions was met,

this suggests that both manipulations worked and that the content of the anxiety did produce differential results.

The second explanation for the pattern of results in study 1 is that there was some quality in the dental pain manipulation that resulted in the increased likelihood of self-modifying feelings. Evaluation of the simple main effects showed there was no difference between conditions for people low on transportability and/or absorption, but that participants had significantly more self-modifying feelings in the dental pain condition if they were high on absorption. The original hypothesis was that mortality salience would elicit self-modifying feelings particularly for people who were high on transportability and/or absorption. The simple main effects support the general hypothesis that participants with a low disposition for emotionally engaging with fantasy would overall not experience self-modifying feelings, whereas participants with a higher disposition for this type of engagement would be especially affected by the manipulation. In this particular case, however, it was the dental pain condition that increased the effect rather than the expected mortality salience manipulation. Perhaps the task of describing dental pain, a situation participants may already be familiar with or can more easily relate to than dying, encourages their imagination and allows them to more readily engage with the story. In this way, self-modifying feelings may occur more easily as participants have already practiced relating to the situation presented in front of them. Future research is needed to further explore this possibility, perhaps with another type of manipulation condition that is equally easy to imagine but does not increase anxiety.

Although this is a viable alternative explanation for the pattern of results, there is a third explanation that can be inferred from previous research in terror management theory

and that may best fit the data. Particularly, in addition to the simple main effects addressed above looking within the different levels of transportability and absorption, there is important information revealed by looking at the simple main effects across the levels of the manipulation. Both previous research and the evaluation of the dental pain condition data demonstrate the positive correlation between personality and the experience of self-modifying feelings. Interestingly, the simple main effect within the mortality salience condition did not completely follow this pattern. There was a positive relation between absorption and self-modifying feelings for participants in the mortality salience condition, but this relation was only half as strong as the relation between absorption and self-modifying feelings for participants in the dental pain condition. Furthermore, there was no relation between transportability and self-modifying feelings for participants in the mortality salience condition despite there being one for participants in the dental pain condition. If the interaction was only due to the dental pain manipulation increasing self-modifying feelings, with no affect from the mortality salience manipulation, a positive relation between transportability and self-modifying feelings would still have been expected.

Rather than there being a quality of the dental pain manipulation that increased the likelihood of experiencing self-modifying feelings, the mortality salience may have decreased the likelihood of experiencing self-modifying feelings, rather than the hypothesized increase. Previous research in terror management theory has demonstrated that participants often denigrate and distance themselves from threatening stimuli after a mortality salience manipulation (Arndt, et al., 2004; Landau et al., 2006). In the current study, participants may have found the television episode too bizarre – incorporating Muppets interacting with humans – or inappropriate – a show obviously made for children –

and thus distanced themselves from the show, preventing them from experiencing a self-modifying feeling. In this way the mortality salience manipulation may have eliminated the transportability relation to self-modifying feelings and diminished the effect of absorption to promote the experience of self-modifying feelings. Utilizing a different stimulus or Terror Management hypothesis may provide insight into the likelihood that this third explanation can explain the pattern of results found.

The final hypothesis tested was that only the experience of self-modifying feelings would be influenced by the manipulation and narrative, aesthetic, and evaluative feelings would not be. This was clearly not supported; not only was the chi-square test of condition and self-modifying feelings not significant, but the chi-square test of condition and evaluative feelings was significant showing a higher frequency of these feelings in the mortality salience condition. Even though it was not expected that the manipulation would influence participants experience of evaluative feelings, this finding may fit with the third explanation above for the pattern of results regarding the manipulation, personality, and self-modifying feelings. If participants in the mortality salience condition were distancing themselves from the story, finding it bizarre or inappropriate, they may have been more inclined to focus on the story as a whole to make sense of what they were watching.

Responses that were coded as evaluative support this interpretation that the novelty of the show motivated participants to try to understand it, as some reported feeling it was a “silly show” but with a “deeper meaning.” As an example of this, one participant in the mortality salience condition, in his discussion of the scene when the inventor finally sees the Fraggles in an emotional moment, wrote, “Maybe the show is pro religion and it is saying that science is often blind to the obvious answers in life.” Similarly, another participant in the

mortality salience condition concluded with “I feel this show is promoting unity among diverse culture” in her discussion of the climactic scene when the horns collected from the various species in Fraggles Rock are finally unified. Additionally, some participants may have been actively denigrating the show as whole as a way of distancing themselves, such as this response a participant, also in the mortality salience condition, had:

This scene was more impactful than the other's I chose, because when I heard about Ned leaving and the Doc losing a friend, I felt like I was looking for some type of theme or advice that ties the whole episode together. In all honesty, when watching this scene, I felt like the first half of the show was a waste of time and it could have been cut in half. (P202)

An exploratory analysis looked at both evaluative and self-modifying feelings and suggests this may be a possibility. Participants who experienced an evaluative feeling were significantly less likely to also experience a self-modifying feeling as compared to participants who did not experience an evaluative feeling (Table 3). Additionally, although there was no significant difference on VRQ self-modifying feelings scores between participants who did and did not experience an evaluative feeling, there was a significant

Table 3.

Co-Experience of Evaluative and Self-Modifying Feelings (N = 232)

Evaluative Feelings	Self-Modifying Feelings	
	Yes	No
Yes	6 (12%)	44 (88%)
No	46 (25%)	136 (75%)

Note: $\chi^2(1) = 3.98, p = .046, \Phi = -.131$; percentages are at levels of evaluative feelings

interaction in a 2 (condition) x 2 (evaluative feelings) ANOVA on VRQ self-modifying feeling scores (Figure 2). Participants in the dental pain condition had significantly higher self-modifying feeling scores if they did not experience an evaluative feeling; there was no difference for participants in the mortality salience condition. Although these analyses do not provide information regarding why there was a higher frequency of evaluative feelings in the mortality salience condition, they do show a low likelihood to experience both an evaluative and self-modifying feeling. Utilizing an alternative terror management hypothesis may also provide more information regarding the relation between these two types of feelings, as well as the influence of a mortality salience manipulation.

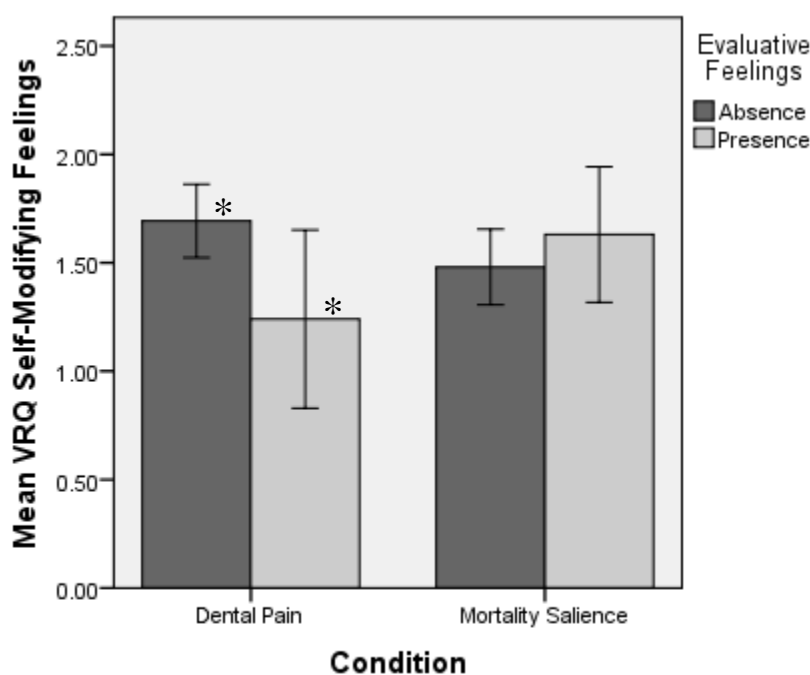


Figure 2. Interaction of Evaluative Feelings and Condition on VRQ Self-Modifying Feeling Scores, $F(1,228) = 4.76$, $p = .030$, $\eta_p^2 = .02$.

Note: *significantly different, $t(119) = 2.05$, $p = .042$; Bars represent 95% confidence intervals

CHAPTER FOUR: STUDY 2

Overview and Hypotheses

The main hypotheses of study 1, that morality salience would increase the experience of self-modifying feelings and would be the only type of feelings affected by mortality salience, were not supported. In particular, the relation between the two personality variables, transportability and absorption, and the experience of self-modifying feelings was found to diminish or disappear altogether in the mortality salience condition. Additionally, evaluative feelings, reactions to the overall television episode, were found to be more frequent in the mortality salience condition. Although there are a number of possible explanations for each of these unexpected results, Terror Management Theory may still offer an alternate theory that explains both of these patterns simultaneously.

Self-modifying feelings are experiences that require the viewer to open themselves up to engaging with the text, allowing for recognition of similarities between the narrative and their own life or for relating to ideas that are not only true for themselves and the character but also for humans or life in general. The transcendental aspects of these aesthetic experiences were considered here as potential ways of bolstering the beliefs one has in the world around them and serving as a form of protection against death anxiety. Nevertheless, when one is experiencing mortality salience and is faced with information that is contrary to one's cultural worldview, this is often found to be threatening, and people will discredit, deride, or otherwise distance themselves from the stimulus as a form of protection and a way to bolster their own beliefs (Arndt, et al., 2004; Landau et al. 2006).

Although the use of a children's television show featuring Jim Henson's Muppets was thought to be an accessible but novel stimulus for the study, it may have been too unique and

unexpected for some. Participants, especially those in the mortality salience condition, may have found the stimulus particularly threatening and responded by distancing themselves from the episode rather than opening themselves up for a self- or beliefs- affirming experience, as would be expected in a typical mortality salience paradigm with a disliked stimulus. Discussing their reactions to the entire show within an activity instructing them only to write about three scenes, which were subsequently coded as evaluative feelings, may have revealed this attempt to step back from the episode in order to either orient themselves and understand the context of the show overall or to derogate and dismiss it to lessen it as a threat. Looking at the show from this evaluative perspective may have precluded the experience of self-modifying feelings, which require the viewer to step into, rather than away from, the narrative.

Whereas study 1 focused on the mortality salience hypothesis of Terror Management Theory, with its assumption that behaviors indicating the bolstering of cultural worldviews would occur only in the mortality salience condition, study 2 incorporated another of the major hypotheses of the theory. The anxiety buffer hypothesis states that as the cultural worldview is reinforced, there will be a decrease in accessibility of death-related thoughts (Hayes, Schimel, Arndt, & Faucher, 2010; Pyszczynski, 2009). To accomplish this, study 2 replicated the method of study 1 with a single exception: immediately after viewing the television episode, before being asked to select and write about their most striking scenes, all participants were given a measure of death thought accessibility. In this way, it is the effect of viewing the episode that is being captured, rather than the effect being attributed to the task of reflecting and writing about their experience.

By considering the results of study 1 and incorporating the anxiety buffer hypothesis, study 2 makes the following hypotheses:

H1: There will be a replication of the exploratory findings from study 1 that participants will not likely experience both a self-modifying feeling and an evaluative feeling.

H2: Participants in the mortality salience condition who experience a self-modifying feeling or an evaluative feeling will have lower death thought accessibility than those who did not, and a similar death thought accessibility as those in the dental pain condition, who would not have been primed with death.

H3: There should be no relation between the experience of aesthetic feelings and narrative feelings on death thought accessibility.

Methods

Participants

The participants for study 2 were selected from the same participant pool, with the additional requirement that they had not participated in study 1. A total of 256 participants completed the study. Six participants were dropped from data analysis because they did not follow the instructions when selecting and writing about striking scenes in the episode.

Another participant was dropped from data analysis due to a handicap that prevented him from completing the death-thought accessibility measure. Four of these seven participants were in the mortality salience condition and three were in the dental pain condition; thus, it does not appear that problems were specific to condition. Of the 249 remaining participants,

55% were female, 89% indicated they were white, and the ages of participants ranged from 18 to 35 ($M = 19.2$, $SD = 1.59$).

Procedures and Materials

The materials and procedures were identical to study 1, except for the addition of the death thought accessibility measure. Cronbach alphas were computed for each of the scales to determine the internal reliability within study 2. Negative affect, $\alpha = .88$, Positive affect, $\alpha = .90$, Transportability, $\alpha = .88$, and Absorption, $\alpha = .92$, all had acceptable reliability. The subscales of the VRQ were computed with the same items used in study 1, and the self-modifying feeling subscale had acceptable reliability, $\alpha = .83$.

Death thought accessibility. Immediately after viewing the television episode, all participants completed a 26-item word completion task typical to TMT studies testing the anxiety buffer hypothesis to test for death thought accessibility (Arndt, Greenberg, Solomon, Pyszczynski, & Simon, 1997). Participants were presented with all items at once and instructed to fill in the letters in the blanks provided to create a real English word. Six of the 20 items could potentially be completed to spell either a death-related or a neutral word (e.g. “COFF_” can be “COFFIN” or “COFFEE”). The amount of death-thought accessibility was determined by summing the number of these six items that participants had completed with the target death words.

Results

Coding for Feelings

The same two coders and categories from study 1 were used in study 2. Rather than both coding all participants in study 2, one coder analyzed the responses of all 256 participants and the second analyzed responses from a random 20% of the participants. The

inter-rater reliability for each of the four primary categories of interest was acceptable: evaluative feelings, $\Phi = .82$, narrative feelings, $\Phi = .86$, aesthetic feelings, $\Phi = .90$, and self-modifying feelings, $\Phi = .92$.

Preliminary Analyses

Both t-tests of affect, as measured by the PANAS, between the two conditions were non-significant, indicating there was no difference between groups in negative affect, $t(247) = -0.09, p = .928$, or positive affect, $t(247) = 0.426, p = .670$.

Hypothesis 1

A chi-square was conducted to test the hypothesis that participants were not likely to experience both a self-modifying feeling and an evaluative feeling in reaction the television episode. Although there was a very low percentage of participants who experienced both types of feelings (3% of all participants), the presence of self-modifying feelings was not significantly less frequent for those participants that had experience an evaluative feeling compared to those who had not, $\chi^2(1) = 1.36, p = .244, \Phi = -.074$, and thus did not replicate the exploratory findings in study 1. Similarly, the 2 (condition) x 2 (presence of evaluative feelings) ANOVA on VRQ scores, the quantitative measure of self-modifying feelings, did not replicate the exploratory findings from study 1 either.

Hypothesis 2

In a 2 (condition) x 2 (presence of self-modifying feelings) ANOVA, there was a significant main effect of condition on death thought accessibility, $F(1,245) = 3.9, p = .049, \eta_p^2 = .02$, and a marginally significant interaction of condition and self-modifying feelings, $F(1, 245), = 3.34, p = .069, \eta_p^2 = .01$. There was no difference in death thought accessibility between conditions for participants who did not have a self-modifying feeling,

$t(196) = -0.164, p = .870$; however, for those participants who did have a self-modifying feeling, those in the mortality salience condition ($M = 2.21, SD = 1.07$) had significantly greater death accessibility than those in the dental pain condition ($M = 1.57, SD = 1.12$), $t(49) = -2.11, p = .040$. There were no simple main effects within condition; there was no difference in death thought accessibility for those in the dental pain condition between those who did or did not have a self-modifying feeling, $t(113) = 1.27, p = .205$, nor for those in the mortality salience condition, $t(132) = -1.32, p = .189$ (Figure 3). There were no significant effects in the 2 (condition) x 2 (presence of evaluative feelings) ANOVA.

Hypothesis 3

As expected there were no differences in death thought accessibility for participants who did or did not experience a narrative feeling, $t(247) = 0.42, p = .674$, nor for those who

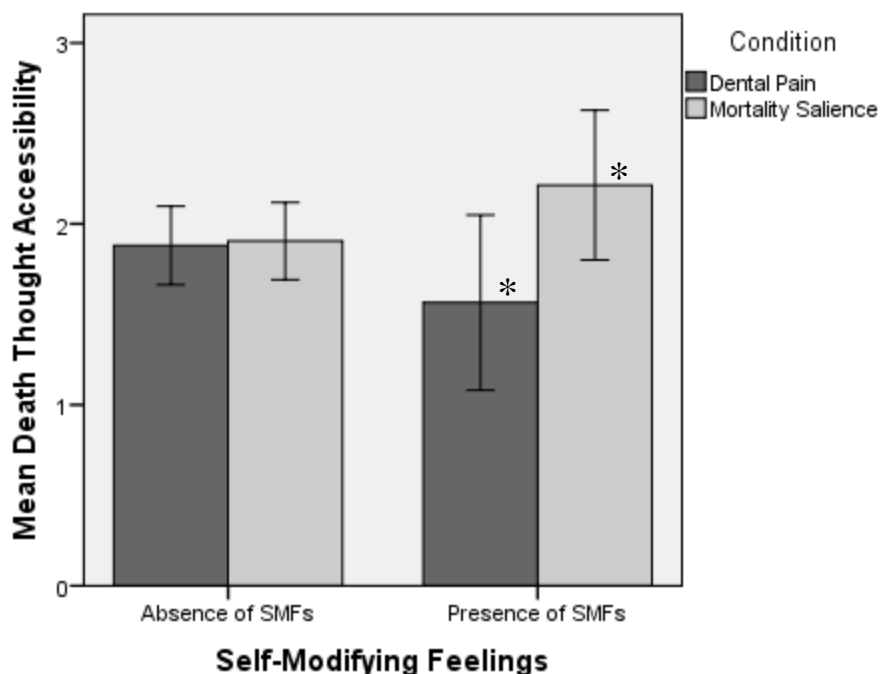


Figure 3. Interaction of Self-Modifying Feelings and Condition on Death Thought Accessibility Scores.

Note: *significantly different; Bars represent 95% confidence intervals

did or did not experience an aesthetic feeling, $t(247) = 1.51, p = .134$. To more thoroughly test this, 2x2 ANOVAs were conducted with condition to test for any influence on narrative or aesthetic feelings on death thought accessibility. No main effects or interactions were significant in these tests, supporting the hypothesis of study 2 that these feelings are not related to terror management.

Discussion

Following from the results of the first experiment, hypotheses were made regarding the relation between self-modifying feelings and evaluative feelings and the unique relation these feelings have with death thought accessibility. The results of study 1 suggested that evaluative feelings may have interfered in the experience of self-modifying feelings; however, study 2 did not replicate these findings. Experiencing an evaluative feeling did not significantly change the pattern of experiencing a self-modifying feeling as it did in study 1. Similarly, the interaction between condition and evaluative feelings on VRQ scores was not replicated in study 2. An additional replication is required to draw adequate conclusions on these competing results. Based on only these two studies, we cannot determine which findings more accurately represent the experience of viewers.

The hypothesis that neither aesthetic nor narrative feelings were related to death thought accessibility was supported; however, only self-modifying feelings were found to be related to death thought accessibility. Despite the unexpected findings in study 1, the original hypothesis that self-modifying feelings would be related to death thought accessibility was supported. Nevertheless, it was expected that death thought accessibility would decrease as a result of the worldview bolstering behavior, following from the anxiety buffer hypothesis of Terror Management Theory. Results showed, though, that participants

in the mortality salience condition who had a self-modifying feeling, hypothesized to serve a bolstering function, scored the highest on the accessibility measure.

These results suggest that experiencing a self-modifying feeling after being primed with mortality salience increases thoughts of death and thus do not serve the protective function predicted. It may be that the recognition of shared experiences among the viewer, the characters, and mankind overall, actually further increases one's mortality salience rather than diminishing it. In a similar quandary, Landau, Sullivan, & Solomon (2010) discuss how aesthetic engagement can relieve the self of mortality fears but also address the fact that TMT is based on the assumption that self-awareness is the root of mortality salience. In this way, the concept of the self is inherently linked to mortality concerns. The peak experiences described by Maslow (1968), however, are ones where fear is assuaged and awareness of one's connection to the world and humankind is all encompassing. These are key aspects the CWV serves, and so it was purported that self-modifying feelings would bolster the CWV by emphasizing these aspects and thus alleviate death anxiety. It is possible, however, that this experience brings with it an awareness of mortality along with the promise of symbolic or literal immortality, and in this way can increase death thought accessibility.

Despite this possible interpretation, the pattern of results for those participants in the dental pain condition suggests this may not be the case for self-modifying feelings. If self-modifying feelings, alone, increased death thoughts we would have expected a similar increase in death thought accessibility in the dental pain condition, but this was not the case. It is necessary to address a limitation of the current study, as well, before firmly drawing this conclusion. The death thought accessibility measure here was only given after watching the episode, so a change in accessibility is not recorded. More research is needed to further

confirm that self-modifying feelings did actually increase the frequency of death thoughts by measuring a change in death thought accessibility. Specifically, future experiments are needed that measure death thought accessibility both before and after the episode is presented.

Furthermore, there is a possible limitation to these studies that the methodological assumptions made may prove to have been inaccurate. Participants were asked to reflect on the scenes they found most striking and to write about the thoughts and feelings they had during the episode, as is standard in the Kuiken and Miall reader response paradigm. The assumption, then, is that participants have already experienced these thoughts and feelings during the episode and are only now recalling them; however, participants were not instructed to pay attention to their thoughts and feelings during the episode itself. Although the informed consent document described they would be asked to discuss their thoughts and feelings, immediately before watching the episode the experimenter encouraged the participants to watch the show as they normally would as the goal was to capture viewer's authentic experiences. In this way, participants may not have been attending to their thoughts and feelings during the episode. The responses they wrote may have, instead, been a combination of reactions they had during the episode as well as after when they were explicitly asked to choose three scenes that provoked thoughts and feelings in them.

The mortality salience and anxiety buffer hypotheses of Terror Management Theory propose that people employ behaviors and psychological processes to protect themselves from death anxiety. In studies based on the mortality salience hypothesis, the dependent variable is some behavior or process that defends one's worldview to alleviate death fears. Study 1 meets the assumptions of the mortality salience methodology by measuring the

presence or absence of the target psychological process, self-modifying feelings, which are hypothesized to bolster one's cultural worldview. In studies that utilize the anxiety buffer hypothesis, the death thought accessibility measure is administered after the defense of the worldview has occurred to determine if this process has reduced the accessibility of death related thoughts (Hayes, et al., 2010). Study 2, however, may not have measured death thought accessibility at the most appropriate time.

Regarding self-modifying feelings, based on the reader response and literature research, it was assumed that these feelings would have occurred during the episode, but it may be they occurred upon reflection of the episode after it was over. When the measure of death thought accessibility was given, participants may not yet have engaged in the protecting processes and thus the effect as an anxiety buffer was not captured. If participants have not been given the opportunity, or taken advantage of an opportunity, to defend their worldview, there is no expectation that death-thought accessibility would decrease (Hayes, et al., 2010; Mikulincer & Florian, 2000). Given this possibility, perhaps the results pertaining to self-modifying feelings ought to be interpreted in the opposite direction: after viewing the episode, those participants in the mortality salience condition who had the highest death thought accessibility may have been the most likely to experience an self-modifying feeling to cope with this lingering anxiety. In this way, the death-thought accessibility is predicting the experience of self-modifying feelings rather than self-modifying feelings influencing the measured accessibility.

The temporal consideration of feelings experienced with stories may be important when considering the difference in medium (motion picture television episode) used in the current studies compared to those used in other studies on self-modifying feelings (short

story). Self-modifying feelings are complex and may require time and added contemplation to fully experience them. With a written story or a piece of static artwork, the amount of time spent reflecting while engaging with the piece is almost completely at the discretion of the reader/viewer allowing for self-modifying feelings to occur during engagement. Kuiken & Miall (1994) have considered the pacing to be an important part of the reading experience and have measured the amount of time readers spend on particular passages over others. When watching a television episode or film, however, the viewer is generally at the mercy of the piece for the pacing of reflection. In the current study, there was no opportunity to rewind or pause the episode and focus on particular features or feelings before moving on. As such, self-modifying feelings may not have occurred at the point of measurement, only to be experienced during the reflective exercise.

This is not to suggest that self-modifying feelings are artificial or anecdotal experiences which only occur in the context of being explicitly asked to reflect on the story. Many people continue to think about, talk about, and reflect on television episodes and films after they have ended. It is the opportunity for reflection that may be necessary but missing from the procedure developed for the current study. It is important, therefore, that future research also look at the change in death thought accessibility from immediately following the episode to immediately following the reflective exercise, in addition to before the episode to immediately following as described earlier. Participants who experience a self-modifying feeling may have no change in accessibility from before the episode to immediately after, but a decrease may occur when accessibility is measured after the reflective exercise where self-modifying feelings may have the best opportunity to occur. This would fit with the

interpretation above, that the high death accessibility immediately following the episode is motivating participants towards self-modifying feelings to cope with the anxiety.

CHAPTER 5. EXPLORATORY ANALYSES

Full Content Analysis Explanation

The goal of these studies was to capture the self-modifying feelings described by Kuiken, Miall, et al. (2004), along with the three other major feelings they described – evaluative, narrative, and aesthetic – and use these categories to answer the research question of the function of the reader’s experience with a narrative. The content analysis of the responses in which participants’ wrote about their top three striking scenes, however, contained more than these four categories. The first 24 participants’ responses were used to identify initial common elements in the writings, and additional categories were added to the list as more commonalities arose. In these cases, the coders returned to the previously coded writings to check for the new categories.

The final coding scheme consisted of 26 categories that identified different types of experiences participants had with the episode. Consistent with Kuiken, Miall, et al. (2004), the desire was to focus on the experiential (feeling) component viewer’s had with the story, rather than the interpretive (cognitive) component. For this reason, these categories generally focus on the type of experience rather than the content. This difference is elucidated below as the categories are detailed. The primary factors focused on were 1) what aspect of the show is being mentioned, 2) is there a reaction to this aspect, and 3) is there some connection made between the aspect of the show and something else. Table 4 presents the category labels, brief descriptions, and inter-rater reliability for each category from study 1 and study 2.

Table 4.

Categories of Content in Participants' Top Three Striking Scenes and Inter-rater Reliabilities for Study 1 and Study 2.

Content Category	Φ^a	Φ^b	Description
Narrative Thoughts	0.93	0.82	Presence of a cognitive, thought-oriented reaction to a character, setting, or event in the story
Narrative Feelings	0.95	0.91	Presence of an affective, feeling-oriented reaction to a character, setting, or event in the story
Simile	0.97	0.80	All four requirements for a Simile of Personal Identification are met (described above)
Simile – Non Comparative	0.99	0.85	Presence of first-person use and personal experience, but connection to character is implied rather than stated directly
Metaphor	0.98	1.00	All four requirements for a Metaphor of Personal Identification are met (described above)
Metaphor – Incomplete	1.00	0.76	The use of the word 'you' for self and character is used, but at least one other requirement for a Metaphor code is missing
Theme	0.99	0.96	Identification of some common theme, message, or lesson
“Shows” Theme	0.98	1.00	The use of the word “shows” explicit introduces the identification of a theme, message, or lesson
Aesthetic – Filmmaking	0.98	0.96	Presence of a reaction (affective or cognitive) to some aspect of filmmaking or the creation of the episode, including but not limited to the music, the use of Muppets, the use of color, or Jim Henson
Aesthetic – Filmmaking – Non-Reactive	1.00	0.57	Reference is made to some aspect of filmmaking or the creation of the episode, but there is no reaction described

Note: ^a Study 1, $N = 237$, overall $\Phi = .94$; ^b Study 2, $n = 50$, overall $\Phi = .91$

Table 4. (Continued)

Content Category	Φ^a	Φ^b	Description
Aesthetic – Language	1.00	0.89	Presence of a reaction (affective or cognitive) to some use of language in the episode, including but not limited to the style of speech used by any given character or particular phrases unique to the story (i.e. use of the phrase “Silly Creatures” to reference Human Beings)
Aesthetic – Language – Non – Reactive	0.86	0.88	Reference is made to some use of language in the episode, but there is no reaction described
Aesthetic – Literary Element	0.96	0.84	Presence of a reaction (affective or cognitive) to some form of literary story element used in the episode, including but not limited to foreshadowing, character development, or climactic moment
Aesthetic – Literary Element – Non- Reactive	0.98	0.90	Reference is made to some form of literary story element, but there is no reaction described
“Shows” Literary Element	0.95	0.89	Explicit use of the word “shows” preceding some aspect of character or plot development
Cantus – Pothead	1.00	1.00	Explicit reference to the character Cantus with a description of his having some hippy or drug-oriented characteristics
Cantus – Negative	0.86	1.00	Explicit denigration of the character Cantus
Other – Negative	1.00	1.00	Explicit denigration of any other character in the episode
Audience – Inclusive	0.87	0.89	Reference is made to the audience with the pronoun “you” or “we”, as in “You can see what Doc is feeling”

Note: ^a Study 1, $N = 237$, overall $\Phi = .94$; ^b Study 2, $n = 50$, overall $\Phi = .91$

Table 4. (Continued)

Content Category	Φ^a	Φ^b	Description
Audience – 3 rd Person	1.00	1.00	Reference is made to the audience in 3 rd person, as in “The audience can see what Doc is feeling”
Audience – Kid Neutral	0.98	1.00	Explicit reference is made to the episode or entire series being intended for a child audience
Audience – Kid Inappropriate	0.91	1.00	Explicit reference is made to some aspect of the episode or series being inappropriate for a child audience
Evaluative	0.90	0.82	Presence of a reaction (affective or cognitive) to the show, or series, as a whole
Show – Non-Reactive	0.76	0.83	Reference is made to the show or series as a whole, but there is no reaction described
Non-Personal Outside Reference	0.88	0.77	Presence of some mention to something outside the show that does not have explicit personal relevance for the viewer. For instance, referencing Hindu philosophy while discussing the character Cantus
Personal – Non-Simile	1.00	0.95	Reference is made to something in the viewer’s personal life, but not in a simile- or metaphor- like fashion. For example, recalling memories of watching this or other shows as a child

Note: ^a Study 1, $N = 237$, overall $\Phi = .94$; ^b Study 2, $n = 50$, overall $\Phi = .91$

Reaction Codes

There were seven main aspects of the show that were commonly mentioned by participants: the show as a whole, filmmaking (e.g., use of Muppets, music), language-usage, literary elements (e.g., foreshadowing, mood), narrative elements (i.e., characters, plot, settings), the audience of the show, and a lesson or message presented in the show.

Reactions to the show as a whole were coded as evaluative, such as “I found myself getting antsy during the show because Gobo could never get the honk right” (P317); however, simply mentioning the show as a whole without a reaction to the entire show was coded separately: “...it was the final work of everything they had been working towards the whole episode” (P272). Similarly, the filmmaking, language-usage, and literary elements aspects could be coded as with or without a reaction.

Reaction to the narrative elements of the episode were not coded separately for having or not having a reaction; however, as described previously, these were the only types of reactions that received a different code according to whether it was a feeling (e.g., mentioning an emotional word) or a thought (comments about the narrative elements which did not explicitly mention or express a feeling). Simply mentioning characters, settings, or the plot, with no elaboration as to what was striking about it, did not receive a code.

As mentioned above, it was not intended that the content of the reactions be coded beyond the specific aspects. Three categories, however, were created as a result observing strong reactions towards a certain character and often with reactions of a specific nature. The particular episode shown in this study, *The Honk of Honks*, features the Fraggles Cantus, a special recurring character who makes occasional visits to Fraggle Rock. Voiced by Jim Henson, who was not a regular puppeteer in this production, Cantus’ role is that of the

traveling Minstrel who appears from time to time to teach the Fraggles new songs and impart some of his mystical wisdom. A handful of participants wrote very strong negative judgements of Cantus, for example "...a job that he was drafted into doing by this jerk Cantus. And now, to further his assholery (that ought to be a word in this case), Cantus insists that the work Gobo did isn't enough" (P105). Additionally, some participants decided that Cantus reminded them of someone on drugs and deduced the character must smoke marijuana, although these comments were not necessarily negative judgements, for example "Throughout the entire show I compared Cantus to a 'hippie'. I couldn't get that image out of my head. I also got the impression that he was under the influence of drugs" (P233). To determine the frequency of these statements, a category was developed to classify responses that judged Cantus negatively and a second was developed for those who made a reference to 'hippies' or drug use when discussing Cantus. Although not common in the initial responses, a single code was also developed for any responses including a negative judgment of any of the other characters.

Audience Codes

Another aspect considered among participants' responses to the episode was mentioning the audience of the show. Many participants wrote about their striking scenes either exclusively from or incorporating the perspective of the audience watching the show. One way participants accomplished this by using the inclusive pronouns of 'you' or 'we' as they described what they saw, for example "The 1st scene also puts you into the place (Fraggle Rock) and you get a better understanding of what things the fraggles are used to and what they do" (P151) or "...and from the beginning, we are made to empathize with Gobo..." (P160). On the other hand, some participants used third-person language to take on

the perspective of the audience, for example “He is going far away and that brings much sadness to both Doc and Ned which in turn brings some degree of sadness to the viewer” (P208). Because the goal of the study was to look specifically at aesthetic experiences where viewers have a personal connection to the narrative, these two types of perspective-taking were coded separately. The second type, where the participant used third-person, allows for the possibility that the participants recognizes this is how the audience, in general, should react even if they, perhaps, did not. The first type, however, with the use of inclusive pronouns, connects the participant to the larger group of the audience and speaks to a shared experience. This would be similar to the use of the second-person in Kuiken, Phillips, et al.’s (2004) metaphors of personal identification, where the reader connects to himself and the character to a larger group and their shared experience.

Additionally, two other categories were created that consider the aspect of the audience. These two reflect the fact that the episode used comes from a television series created for children. Any mention in the responses that the show was intended for children, or younger viewers, was coded in one category reflecting this neutral observation. The content in which these observations occurred were varied, such as the opening theme song sequence being a striking scene because the participant wasn’t expecting a children’s show or a sequence later in the show being striking because the lesson is a good one for children to learn; however, again the content of aspect was not coded. The only exception to this is the final audience category, created for responses that expressed that the material presented in the episode was inappropriate for children. Reasons for why the show was inappropriate ranged from the language being too sophisticated to the storyline being too real to the presumed drug references in the Cantus character:

I figured that this would be like a kid show because of all the singing and they are puppets. But the use of the word ambiguous, it felt out of place at the time, well for the type of audience I thought this show would be for. No little kid is going to know the word ambiguous. (P206)

This is a children's show. I understand that there are certain things in life that happen to people and they get sick, but I just don't really think including a part about losing someone really relates to kids in this sense. It may make sense to children who are older but for young children, including sickness or death in a program with muppets is too real for children to comprehend. (P304)

cantus horn looks like a pipe, not a good message for children (P241)

Once again, it was only a judgment that the content was inappropriate for children, rather than what the content was, that was coded.

Theme Code

The final aspect of the episode that was coded for was a participant's response including an identification or explanation of a theme, lesson, or message presented by the episode. These were generally phrased as real world experiences that 'people' have, although many metaphors of identification were also coded as themes, structured in second-person rather than third-person. Whereas metaphors are focused on shared experiences, themes are generally larger, moral-of-the-story statements. For example, participant 255 describes a theme, "This ties into the theme of understanding one another and all being a part of something. It demonstrates understanding of others even when they are very different but all with the same human qualities of compassion and empathy," but participant 254 relates to Gobo through a metaphor of personal identification that would not be coded as a theme:

After he fails, I think that the reality of the situation sets in and understands how much others were depending on him so they could sing the song of songs. Similar to things that I have gone through, like picking up a friend when they don't have a ride. It may not mean very much to you at first and seem like something that you could just tell them that you can't because you really don't want to, but when they are getting out of the car they look you straight in the eye and thank you it starts to mean just that much more to you.

In contrast, the following was coded as both a metaphor of personal identification and a theme:

Gobo also got to see so much more than the others as far as outerspace and the silly things go because he was an adventurer and not afraid to explore. This has a message of leadership to the audience I thought. It makes me realize that even though the journey may be hard, you will be rewarded more if you take risks.” (P196)

It simultaneously speaks to a specific take-home message, but using the inclusive second-person tense to show a connection between the character, the viewer, and humanity overall.

Connections to the Episode

In addition to the main aspects of the show that participants could attend to, and whether or not they have reactions to these aspects, codes were also developed to capture different ways that participants seemed to connect the show to something else. Similes and metaphors of personal identification, making up self-modifying feelings, were the two primary types of connections of interest for the study; however, these were not the only ones participants made. The criterion for classifying a response as a simile or metaphor of personal identification was very strict, with all of four requirements detailed by Kuiken,

Phillips, et al. (2004) described earlier having to be met for the code of ‘simile’ or ‘metaphor’ to be applied.

Two categories, however, were created to identified participants who met most, but not all, of the criteria. Some participants were clearly comparing an experience of their own with what was occurring in the episode, but did not explicitly use relational language in their response, such as “I related” or “like”. These responses, expressing a comparison between the participant and a character in more implicit language were coded separately from regular similes of personal identification. Likewise, a category was created to classify responses that had the many, but not all, of the components for a metaphor of personal identification. The use of the second-person ‘you’ along with person tense verbs was still required, as it best demonstrates the metaphor idea of identifying shared experiences between the viewer, the character, and humanity, but some participants made these statements without having used the first-person to refer to themselves or third-person to refer to the characters in the particular scene response. Without these additional criteria, it could not be classified as a true metaphor of personal identification, so it received a separate code.

Similes and metaphors of personal identification, both in their complete and incomplete forms, are thought to represent an experience where the viewer finds something in the narrative that resonates a sense of familiarity with them personally, allowing for a blurring between the real life of the viewer and the fictional world presented on screen that is theorized to be accompanied with an experience of realizing something about oneself. It is possible, of course, to connect to the narrative without a sense this resonance of shared experiences or awareness.

Many participants wrote about something in the episode reminding of them something in their own life or something about the world in general. Although these responses were often written using language that would be appropriate for a simile classification, such as “this reminds me of,” they were lacking the shared experience between viewer and character, or personal identification component of similes. For example, many participants were quick to point out that the show reminded them of shows they would watch as child, capturing a moment of nostalgia rather than shared experience. Others used personal information to qualify a response they were making of the show, for example, “I remember this part because of the Corn Flakes. Corn Flakes are one of my favorite cereals so I connected with this scene” (P324) or “I felt bad for the doc. I felt as though I should comfort him in a way. It bothers me when I see the elderly upset” (P302). These responses with personal information received their own code, but no distinction was made between the content of the personal information. Additionally, a separate code was developed when participants made similar references to non-personal information, such as “I almost felt throughout the episode that Cantus was a modern day Buddha” (P302) or “There were some sentences that were spoken that even I had a hard time understanding, the way the words were twisted sort of also reminded me of Yoda” (P197).

‘Show’-usage Codes

Two final codes were created as a commonality was noticed among responses for some participants to use the word “show” to comment on how the structure of the story was developing messages and themes or character development. Given the importance Kuiken, Miall, et al. (2004) have put on the language used by participants in discerning different types of feelings, the potential that the explicit use of the word “show” in this context

represented something unique about their experience was not overlooked. Some participants would explicitly use the word prior to identifying a theme after describing the scene, such as “This final sequence shows how we must be open to connect with other people because we are all a part of each other” (P192), whereas others would not, for example, “This made me think about people and how once we get to know a person and see that they are like us, we tend to be more tolerant and see more eye to eye” (P249).

The use of the word “show” may identify another way participants express having aesthetic feelings, where they are reacting to the way in which the story was created (i.e. plot development) to send a particular message. Additionally, some participants used the word “show” prior to describe some sort of character development. Again there is the potential for this word usage to represent some additional component of aesthetic feelings as participants are attending to the way the story was written and presented to give information about the character’s personality, for example, “it showed that Gobo was a caring creature and was thinking about other people rather than himself” (P272).

Exploratory Analyses

Exploratory analyses were completed to further investigate the types of experiences participants had with the episode and the potential role mortality salience and the personality characteristics of transportability and absorption played in these experiences. There were two main goals for the following: 1) identify any categories of experience that are affected by the mortality salience manipulation and 2) investigate the potential of these categories as protective mechanisms that reduce death through accessibility. For both of these the role of personality (as measured by transportability or absorption) was controlled for or considered as a moderator.

Experiences Affected by the Manipulation

A series of chi-square tests were conducted to identify any experience categories that occurred more in one condition than the other. To increase the power of these tests to determine differences between conditions, the data from study 1 and study 2 were combined. Of the 26 total variables considered, only two had significant difference between the experimental conditions. Participants in the dental pain condition had a higher frequency of experiencing a non-comparative simile than participants in the mortality salience condition, $\chi^2(1) = 5.35, p = .021, \Phi = -.11, \hat{p}_{DP} = .20, \hat{p}_M = .12$. In contrast, participants in the mortality salience condition had a higher frequency of using the word “show” when describing some character or plot development, $\chi^2(1) = 4.87, p = .027, \Phi = .10, \hat{p}_{DP} = .08, \hat{p}_M = .14$. These two experiences, however, had no relation in their occurrence with each other; a chi-square test was not significant suggesting that participants who had one type of experience were no more or less likely to have the other.

To explore fully any possible relation between the types of experiences and the manipulation, hierarchical binary logistic regressions were conducted with transportability and absorption, separately, to determine if there is any relation with condition after controlling for personality or an interaction with personality.

Controlling for Transportability. The main effect of condition on non-comparative similes remained significant after controlling for transportability, *Wald* $\chi^2(1) = 5.34, p = .021$, Odds Ratio = 0.55, 95% CI [0.33, 0.91], accounting for 2.0% of the variance. Similarly, the main effect of condition on the use of the word “show” to describe character or plot development remained significant after controlling for transportability, *Wald* $\chi^2(1) = 4.58$,

$p = .032$, Odds Ratio = 1.93, 95% CI [1.06, 3.53], accounting for 3.2% of the variance. No other variables were significantly related to condition after controlling for transportability.

Interaction with Transportability (Table 5). When the interaction of condition and transportability was entered into the regression model, there was a significant interaction on the experience of non-comparative similes, along with marginally significant main effects of condition and transportability. There was not a significant interaction between condition and transportability on the use of the word “show” to describe character or plot developments; there was a significant main effect of transportability, but the main effect of condition dropped to marginal significance. There was, however, a significant interaction, along with significant main effects of condition and transportability, on the ‘aesthetic-language’ variable. Finally, there were marginally significant interactions with the ‘narrative feelings’, and the ‘aesthetic language non-reactive.’

Controlling for Absorption. The main effect of condition on non-comparative similes remained significant after controlling for absorption, $Wald \chi^2(1) = 5.46$, $p = .019$, Odds Ratio = 0.55, 95% CI [0.33, 0.91], accounting for 2.4% of the variance. Similarly, the main effect of condition on the use of the word “show” to describe character or plot development remained significant after controlling for absorption, $Wald \chi^2(1) = 4.50$, $p = .034$, Odds Ratio = 1.92, 95% CI [1.05, 3.51], accounting for 3.2% of the variance. No other variables were significantly related to condition after controlling for absorption.

Interaction with Absorption (Table 6). There was no interaction of condition and absorption on non-comparatives similes, and the main effect of condition dropped to non significance when the interaction term was entered in the model. There was a marginally significant interaction on the use of the word “show” to describe character or plot

Table 5.

Binary Logistic Regressions for Experiences Predicted by Condition and Transportability (N = 481).

	Model			B(SE)	Wald χ^2	p	Exp(B)	Exp(B) 95% CI
	χ^2	p	R ^{2a}					
<u>Simile-Non Comparative</u>	10.94	.012	.039					
Condition				2.82 (1.52)	3.45	.063	16.79	[0.86, 329.11]
Transportability				0.31 (0.17)	3.40	.065	1.36	[0.98, 1.90]
Condition x Transportability				-0.59 (0.26)	5.14	.023	0.55	[0.33, 0.92]
<u>“Shows” Literary Element</u>	9.65	.022	.040					
Condition				3.37 (2.00)	2.83	.093	29.00	[0.57, 1468.76]
Transportability				0.54 (0.27)	4.12	.042	1.71	[1.02, 2.88]
Condition x Transportability				-0.45 (0.33)	1.91	.167	0.64	[0.34, 1.21]
<u>Aesthetic Language</u>	7.47	.058	.026					
Condition				3.80 (1.49)	6.53	.011	44.57	[2.42, 819.38]
Transportability				0.42 (0.19)	5.04	.025	1.52	[1.06, 2.19]
Condition x Transportability				-0.62 (0.25)	6.15	.013	0.54	[0.33, 0.89]
<u>Narrative Feelings</u>	8.78	.032	.025					
Condition				1.61 (1.11)	2.10	.147	5.02	[0.57, 44.34]
Transportability				0.37 (0.14)	7.14	.008	1.44	[1.10, 1.88]
Condition x Transportability				-0.33 (0.19)	2.84	.092	0.72	[0.50, 1.05]
<u>Aesthetic Language Non Reactive</u>	3.45	.327	.011					
Condition				2.05 (1.28)	2.60	.107	7.80	[0.64, 94.90]
Transportability				0.09 (0.15)	0.36	.549	1.10	[0.81, 1.48]
Condition x Transportability				-0.37 (0.22)	2.79	.095	0.70	[0.45, 1.07]

Note: ^a Nagelkerke R²; Marginally significant effects (p < .10) are italicized; Significant effects (p < .05) are bolded. CI = Confidence Interval

Table 6.

Binary Logistic Regressions for Experiences Predicted by Condition and Absorption (N = 481).

	Model			<i>B</i> (<i>SE</i>)	Wald χ^2	<i>p</i>	<i>Exp</i> (<i>B</i>)	<i>Exp</i> (<i>B</i>) 95% CI
	χ^2	<i>p</i>	<i>R</i> ^{2a}					
<u>Simile-Non Comparative</u>	8.37	.039	.030					
Condition				1.30 (1.46)	0.79	.373	3.68	[0.21, 64.88]
Absorption				<i>0.50 (0.60)</i>	2.82	<i>.093</i>	<i>1.65</i>	<i>[0.92, 2.95]</i>
Condition x Absorption				-0.60 (0.46)	1.74	.188	0.55	[0.23, 1.34]
<u>“Shows” Literary Element</u>	10.64	.014	.044					
Condition				3.86 (1.90)	4.14	.042	47.33	[1.15, 1944.66]
Absorption				1.06 (0.46)	5.34	.021	2.89	[1.17, 7.11]
Condition x Absorption				<i>-0.98 (0.57)</i>	<i>3.01</i>	<i>.083</i>	<i>0.38</i>	<i>[0.12, 1.14]</i>
<u>Aesthetic Literary Elements</u>	10.87	.012	.034					
Condition				3.51 (1.28)	7.49	.006	33.56	[2.71, 415.28]
Absorption				0.87 (0.30)	8.34	.004	2.39	[1.32, 4.30]
Condition x Absorption				-1.02 (0.39)	6.67	.010	0.36	[1.32, 4.30]
<u>Aesthetic Language Non Reactive</u>	3.10	.377	.010					
Condition				2.04 (1.24)	2.69	.101	7.68	[0.67, 87.89]
Absorption				0.40 (0.28)	2.08	.149	1.50	[0.87, 2.59]
Condition x Absorption				<i>-0.67 (0.39)</i>	2.92	<i>.087</i>	<i>0.51</i>	<i>[0.24, 1.10]</i>

Note: ^a Nagelkerke *R*²; Marginally significant effects (*p* < .10) are italicized; Significant effects (*p* < .05) are bolded. CI = Confidence Interval

development, along with significant main effects of condition and absorption. There was a significant interaction, along with significant main effects of condition and absorption, on the ‘aesthetic-literary element’ variable. There was also a marginally significant interaction on ‘aesthetic language non reactive.’

Experience and Death Thought Accessibility

A series of 2 (condition) x 2 (experience) ANOVAs were conducted on the death thought accessibility scores for each of the 26 experience variables. Analyses were only conducted on study 2 data, as there was no death thought accessibility measure in study 1. The ANOVAs with the ‘cantus-pothead’ and ‘other-negative’ experience variables were not able to compute interactions due to the low number of participants who experienced either of these.

Four experience classification variables emerged to predict death thought accessibility, but only two with significant effects. Accounting for 4.3% of the variance was the model containing the classification for participants who expressed some part of the show was inappropriate for children. There was a significant main effect of condition, $F(1,245) = 7.66, p = .006, \eta_p^2 = .03$, and a significant interaction, $F(1,245) = 6.62, p = .011, \eta_p^2 = .03$. Accounting for 2.9% of the variance was the model containing the classification for participants who connected some aspect of the show with something outside but not personal. There was a significant main effect of condition, $F(1, 245) = 5.29, p = .022, \eta_p^2 = .02$, and a significant interaction, $F(1,245) = 4.89, p = .028, \eta_p^2 = .02$.

The two remaining models only had marginally significant effects on death thought accessibility. Accounting for 2.4% of the variance was the model containing the classification for participants who expressed some negative reaction towards the character

Cantus. There was only a marginally significant main effect of experience, $F(1,245) = 3.17$, $p = .076$, $\eta_p^2 = .013$, but no significant main effect of or interaction with condition.

Accounting for 1.8% of the variance was the model containing the classification for participants who explicitly used the word “show” before describing a theme. There was a marginally significant interaction, $F(1,245) = 3.06$, $p = .082$, $\eta_p^2 = .012$, but no significant main effects.

Experience, Personality, and Death Thought Accessibility

As the first set of exploratory analyses demonstrated, the relation between the mortality salience manipulation and certain experiences was only visible when controlling for personality or considering the interaction of condition with personality. To fully consider this with death thought accessibility, first the 2 x 2 ANOVAs conducted above were rerun to control for transportability and absorption, separately. Then linear regressions were conducted to incorporate transportability and absorption into models predicting a three-way interaction on death thought accessibility.

Controlling for Transportability. Overall, there was no change in significance to any of the main effects or interactions in the models with the following classification after controlling for transportability: ‘audience – kid inappropriate,’ ‘cantus-negative,’ ‘shows theme,’ and ‘non-personal outside-reference.’ Controlling for transportability did produced a marginally significant main effect of condition, $F(1,244) = 2.74$, $p = .099$, $\eta_p^2 = .01$, in a model with the classification of participants that had an aesthetic reaction to the language used in the episode. This model accounted for 1.3% of the variance in death thought accessibility.

Controlling for Absorption. Overall, there was no change in significance to any of the main effects or interactions in the models with the following classification after controlling for transportability: ‘audience – kid inappropriate,’ ‘shows theme,’ and ‘non-personal outside-reference.’ After controlling for absorption in the model with the ‘cantus-negative’ variable, the marginally significant main effect of the classification remained and a marginally significant main effect of condition emerged, $F(1,244) = 2.75, p = .099, \eta_p^2 = .11$. This only increased the variance accounted for by .2%.

Three-way Interaction with Transportability. Two of the 26 individual classifications have a significant three-way interaction with transportability. In a model accounting for 3.8% of the variance, narrative thoughts (reactions to characters, setting, plot without an emotion word) interacted with condition and transportability to predict death thought accessibility, $\beta = -1.58, t(240) = -2.25, p = .026$, see Figure 4. For participants who

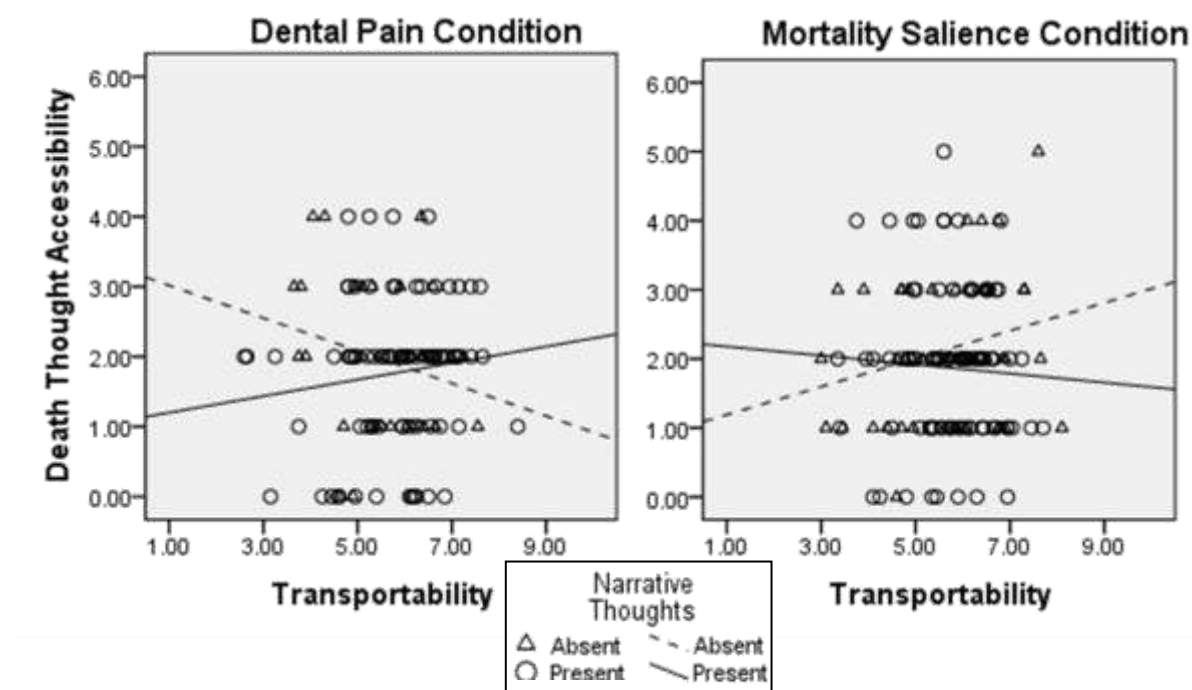


Figure 4. Three-Way Interaction of Narrative Feelings, Condition, and Transportability on Death Thought Accessibility.

experienced a narrative thought, there was no relation between condition or transportability on their death thought accessibility. There was not a significant relation between transportability and death thought accessibility for participants in the dental pain condition who did not have a narrative thought was not significant, $\beta = -0.23$, $t(32) = -1.37$, $p = .179$; however, there was a marginally significant positive relation between transportability and death thought accessibility for participants in the mortality salience condition who did not have a narrative thought, $\beta = 0.24$, $t(46) = 1.7$, $p = .097$. There was also a significant three-way interaction between condition, transportability, and metaphors of personal identification (using the strict classification criteria), $\beta = 1.07$, $t(240) = 1.98$, $p = .049$, with the full model accounting for 2.9% of the variance. Furthermore, there was a marginally significant three-way interaction between condition, transportability, and similes of personal identification (using the strict classification criteria), $\beta = 1.45$, $t(240) = 1.82$, $p = .070$, with the full model accounting for 2.5% of the variance. Further discussion of these interactions with metaphors and similes of personality identification are detailed below in the analysis of collapsed categories of experience.

Interaction with Absorption. Metaphors of personal identification (using strict classification criteria) interacted with condition and absorption to significantly predict death thought accessibility, $\beta = 1.23$, $t(240) = 2.10$, $p = .037$, with the full model accounting for 5.3% of the variance. Non-reactive mentions of literary elements also interacted with condition and absorption to significantly predict death thought accessibility, $\beta = 1.14$, $t(240) = 2.02$, $p = .044$, with the full model accounting for 5.5% of the variance. Finally, there was a marginally significant interaction with condition, absorption, and non-comparative similes on death thought accessibility, $\beta = 1.08$, $t(240) = 1.67$, $p = .096$, with the full model

accounting for 3.4% of the variance. The interpretations of these interactions are discussed below.

Additional Collapsed Variables

A number of different individual content variables emerged above to either be influenced by the manipulation or be related to death thought accessibility. The original analyses of study 1 and study 2 combined individual variables to create theoretically relevant categories of experience, such as the traditional combining of similes and metaphors of personal identification to create a self-modifying feelings variable (Kuiken, Phillips, et al., 2004). Following from this, three separate categories were created to collapse theoretically similar classifications. Each of these final categories were created in the same dichotomous manner as the individual variables, classifying the experience as being either present or absent, because summing the variables would not necessarily represent having more of a given experience or a stronger experience. As the original coding process was dichotomous, summing would not be able to capture responses that included multiple experiences or any experiences that occurred with other sequences besides the top three.

Denigration

Stating that some aspect of the show was inappropriate for children and expressing a negative judgment of the character Cantus were both found to be related to death thought accessibility. Given that the other two primarily negative categories, expressing negativity towards another other character and stating that cantus must use drugs, could not be tested in the above analyses due to the low number of participants who received these classification, these four variables were collapsed in different combinations to determine a ‘denigration’

variable that would best predict death thought accessibility along with condition and personality.

Even though neither of the individual classification variables tested had a significant three-way interaction with condition and transportability, the variable created by collapsing ‘audience-kid inappropriate,’ ‘cantus-negative,’ and ‘other-negative’ into an overall ‘denigration’ category revealed a significant three-way interaction, $\beta = -1.32$, $t(240) = -2.08$, $p = .039$, a significant two-way interaction between transportability and ‘denigration,’ $\beta = 1.22$, $t(240) = 2.03$, $p = .044$, a significant two-way interaction between condition and ‘denigration,’ $\beta = 1.56$, $t(240) = 2.45$, $p = .015$, and a significant main effect of ‘denigration,’ $\beta = -1.39$, $t(240) = -2.31$, $p = .022$, on death thought accessibility with the entire model explaining 5.2% of the variance. There were no significant effects with models including any of the variations of the ‘denigration’ variable, condition, and absorption.

Interpreting the three-way interaction with the denigration variable, however, is tentative at best because there were only 15 total participants in study 2 who were classified as denigrating the show. Nevertheless, there was a marginally significant positive relation between transportability and death thought accessibility for participants in the dental pain condition that denigrated some aspect of the show, $\beta = .768$, $t(3) = 2.4$, $p = .075$ (Figure 5). Although the trends suggest the relation becomes negative for participants who expressed negativity in the mortality salience condition, more data collection is needed to increase the number of participants who denigrate the show or more research is needed to better classify this category to confirm this. The sufficient number of participants who did not denigrate the show, however, does support the conclusion there was no relation between transportability and death thought accessibility for these participants regardless of if they were in the dental

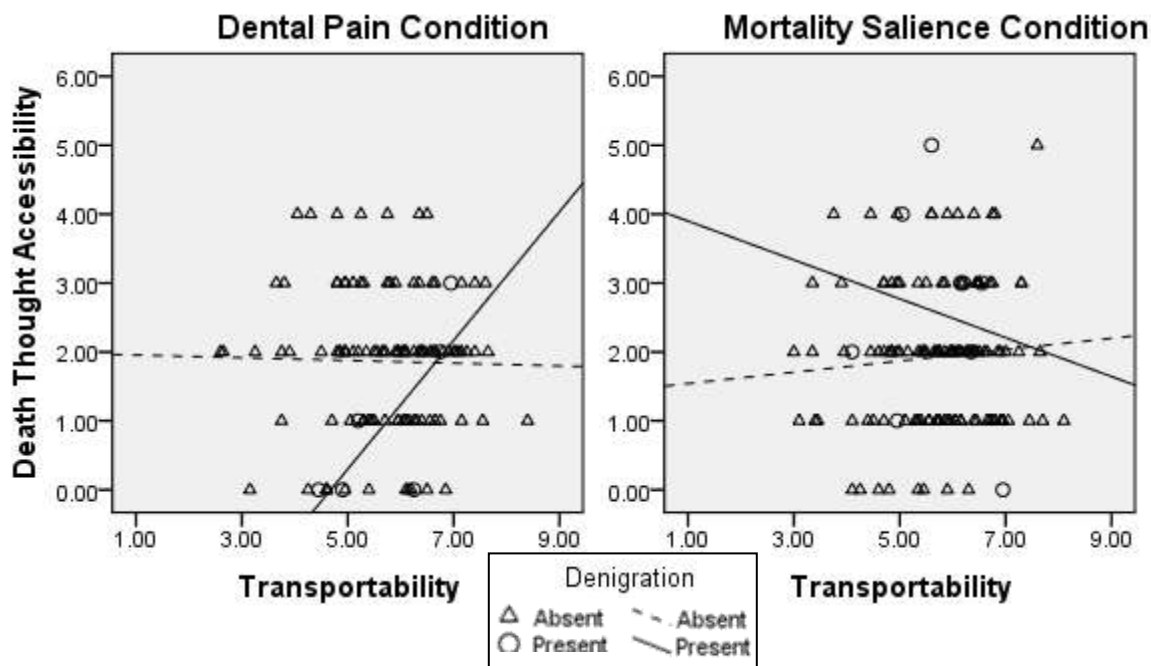


Figure 5. Three-Way Interaction of Denigration, Condition, and Transportability on Death Thought Accessibility.

pain condition, $\beta = -0.02$, $t(106) = -0.22$, $p = .829$, or the mortality salience condition, $\beta = 0.08$, $t(122) = 0.89$, $p = .374$.

Self-Modifying Feelings

Similes of personal identification, with strict or relaxed criteria for classification, and metaphors of personal identification, with strict criteria for classification, were all found to be related to the manipulation or death thought accessibility. Multiple categories combining the variables in theoretically relevant ways were created; these included looking only at similes, only at metaphors, and collapsing all four self-modifying feeling variables together for an all-inclusive category. Linear regressions on death thought accessibility were run with condition, personality, and each of these categories, separately, to determine the best predictor of death thought accessibility.

The original self-modifying feelings variable from studies 1 and 2, using the Kuiken, Phillips, et al. (2004) method of combining similes and metaphors classified with the strict criteria, accounted for the most variance, 4.2%, when combined with condition and transportability (Figure 6). A significant three-way interaction, $\beta = 1.27$, $t(240) = 2.19$, $p = .030$, and a marginally significant interaction of condition and self-modifying feelings emerged, $\beta = -3.56$, $t(240) = -1.84$, $p = .066$. Similarly, the model with condition, absorption, and the original self-modifying feelings classification accounted for 5.8% of the variance with a significant main effect of condition, $\beta = 0.94$, $t(240) = 2.58$, $p = .011$, a significant interaction of condition and absorption, $\beta = -0.97$, $t(240) = -2.59$, $p = .010$, a marginally significant interaction of absorption and self-modifying feelings, $\beta = -1.01$, $t(240) = -1.68$, $p = .095$, and a significant three-way interaction, $\beta = 1.21$, $t(240) = 1.99$, $p = .048$ (Figure 7).

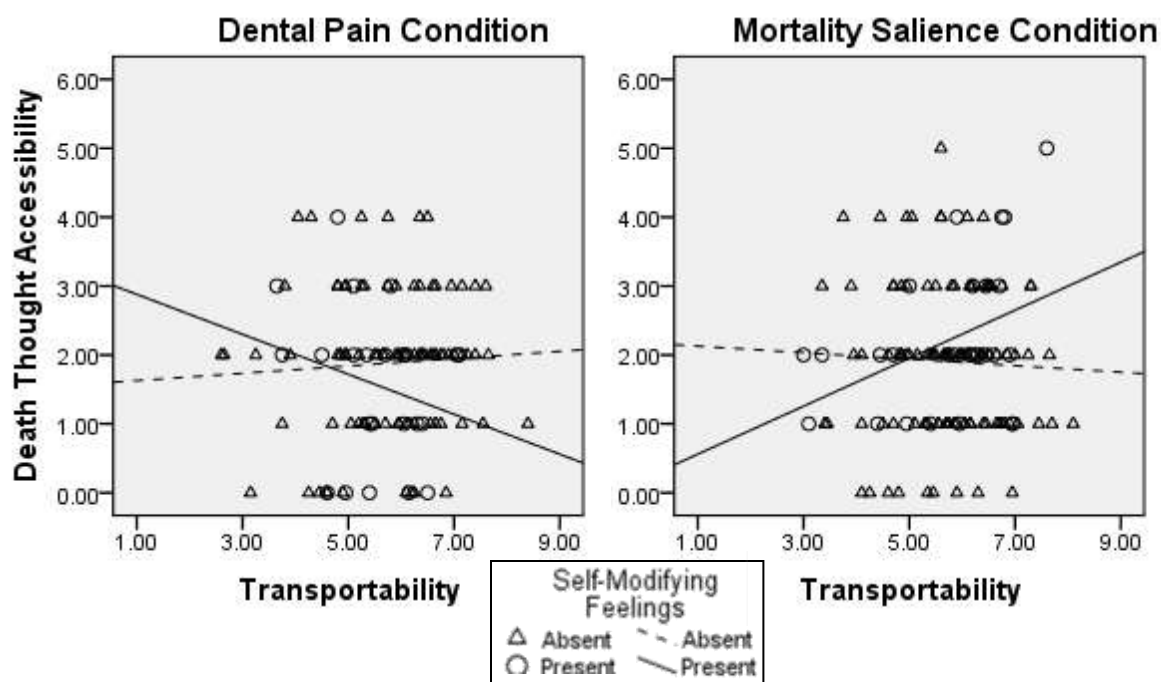


Figure 6. Three-way interaction of condition, self-modifying feelings, and transportability on death thought accessibility.

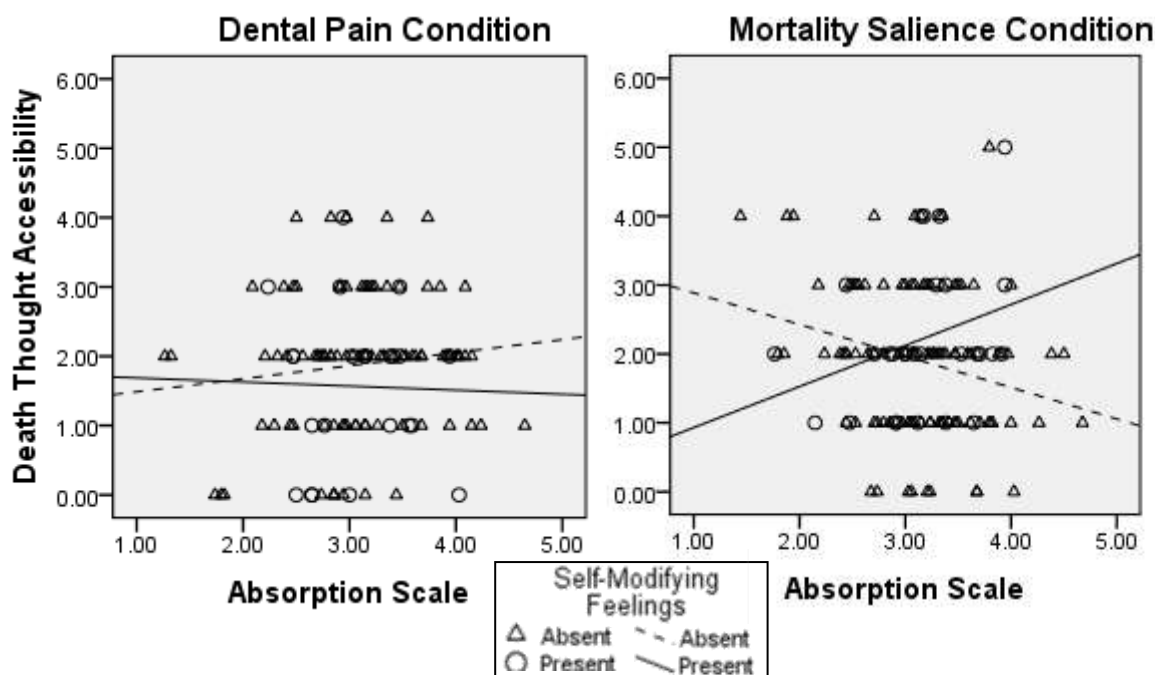


Figure 7. Three-way interaction of condition, self-modifying feelings, and absorption on death thought accessibility.

To interpret the three-way interactions, the personality variables were regressed onto death thought accessibility for each condition and presence or absence of self-modifying feelings. There was no significant relation between transportability, or absorption, and death thought accessibility for participants in the dental pain condition whether or not they experienced a self-modifying feeling. For participants in the mortality salience condition who did not experience a self-modifying feeling, there was not a significant relation between death thought accessibility and transportability $\beta = -0.04$, $t(103) = -0.43$, $p = .671$, but there was a significant negative relation between death thought accessibility and absorption, $\beta = -0.24$, $t(103) = -2.51$, $p = .014$. For participants in the mortality salience condition who did experience a self-modifying feeling, there was a significant positive relation between

death thought accessibility and transportability, $\beta = 0.40$, $t(25) = 2.2$, $p = .037$, but not for absorption, $\beta = 0.3$, $t(25) = 1.61$, $p = .120$.

To further analyze the three way interaction, a mean split was applied to both the transportability and absorption variables to look only at participants who were low or high on these personality variables. T-tests were conducted for condition at the two levels of self-modifying feelings and the two levels of transportability, as well as for self-modifying feeling at the two levels of condition and the two levels of absorption. Only two simple main effects were significant; death thought accessibility was higher for participants high on transportability in the mortality salience condition if they experienced a self-modifying than if they did not, $t(71) = -2.29$, $p = .025$, $M_{absent} = 1.85(0.98)$, $M_{present} = 2.47(1.12)$. Similarly, death thought accessibility was higher for participants high on transportability who were in the mortality salience condition, rather than the dental pain condition, if they experienced a self-modifying feeling, $t(27) = -2.56$, $p = .016$, $M_{DP} = 1.4(0.97)$, $M_{MS} = 2.5(1.1)$. The same two simple main effects were the only ones significant when the tests were conducted at the two levels of absorption: between self-modifying feelings within mortality salience for participants high on absorption, $t(30) = -2.64$, $p = .010$, $M_{absent} = 1.81(1.11)$, $M_{present} = 2.67(1.18)$, and between condition for those participants who experienced a self-modifying feeling and where high on absorption, $t(24) = -2.5$, $p = .020$, $M_{DP} = 1.64(0.81)$, $M_{MS} = 2.67(1.18)$.

Literary Focus

The other set of individual variables that emerged to be influenced by the manipulation, or related to death thought accessibility, each captured some part of an aesthetic experience, as defined by Kuiken, Miall, et al. (2004) meaning reactions to features

used in the creation of the piece. In particular, these were reacting to, or just mentioning, literary elements or the language used in the story, along with the explicit use of the word “show” before describing some character or plot development or theme. Given there is no clear theoretical reasoning to combine these six variables in any particular manner, a more systematic method was employed to find an acceptable combined ‘literary focus’ variable that would best predict death thought accessibility along with condition and personality.

The individual linear regressions with condition and absorption described above revealed a significant three-way interaction with the classification for participants who mentioned a literary element without a reaction towards it. Although the three-way interaction was not significant for the model with transportability, this classification explained the most variance of the models tested with transportability. The remaining five variables were added to this starting classification to find the best model to explain death thought accessibility. The final model selected consisted of both literary element aesthetic variables, those with and without reactions, along with the classification of participants who explicitly used the word “show” before describing character or plot development.

Transportability. Accounting for 4% of the variance, the model with this ‘literary focus’ variable, condition, and transportability included a significant main effect of ‘literary focus,’ $\beta = 1.06$, $t(240) = 2.13$, $p = .034$, a marginally significant main effect of condition, $\beta = 0.24$, $t(240) = 1.81$, $p = .072$, a significant interaction between condition and ‘literary focus,’ $\beta = -1.53$, $t(240) = -2.50$, $p = .013$, a significant interaction between transportability and ‘literary focus,’ $\beta = -1.16$, $t(240) = -2.27$, $p = .024$, and a significant three-way interaction between condition, transportability, and ‘literary focus,’ $\beta = 1.51$, $t(240) = 2.47$,

$p = .014$ (see Figure 8). For participants in the dental pain condition, there was a marginally significant positive relation between transportability and death thought accessibility if they did not have a ‘literary focus’ classification, $\beta = 0.21$, $t(62) = 1.70$, $p = .095$, but no significant relation if they did. For participants in the mortality condition, there was not a significant relation between transportability and death thought accessibility for participants regardless of ‘literary focus’ classification.

Absorption. The model with absorption replacing transportability accounted for 5.6% of the variance. This model, however, only had a significant main effect of condition, $\beta = 1.5$, $t(240) = 3.3$, $p = .001$, but no significant main effect of absorption or ‘literary focus.’ There was a significant interaction between condition and ‘literary focus,’ $\beta = -1.57$, $t(240) = -2.64$, $p = .009$, and a significant interaction between absorption and condition,

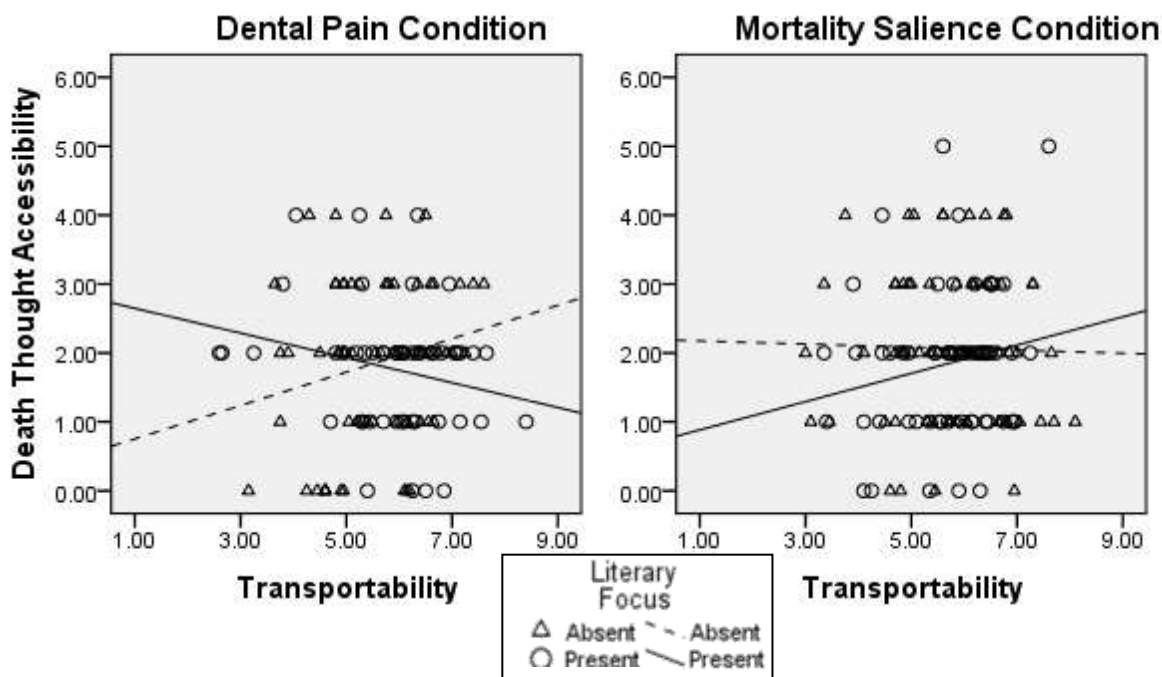


Figure 8. Three-way interaction of condition, literary focus classification, and transportability on death thought accessibility.

$\beta = -1.49$, $t(240) = -3.12$, $p = .002$, but not a significant interaction of absorption and ‘literary focus.’ There was a significant three-way interaction between condition, absorption, and ‘literary focus,’ $\beta = 1.6$, $t(240) = 2.64$, $p = .009$ (see Figure 9). For participants in the dental pain condition, there was not a significant relation between absorption and death thought accessibility for participants, regardless of ‘literary focus’ classification. For participants in the mortality salience condition, there was a significant negative relation between absorption and death thought accessibility for those who were not classified with ‘literary focus,’ $\beta = -0.33$, $t(70) = 2.88$, $p = .005$, but no significant relation for those did.

To further analyze these three-way interactions, a mean split was applied to both the transportability and absorption variables to look only at participants who were low or high on these personality variables. T-tests conducted for condition at the two levels of ‘literary

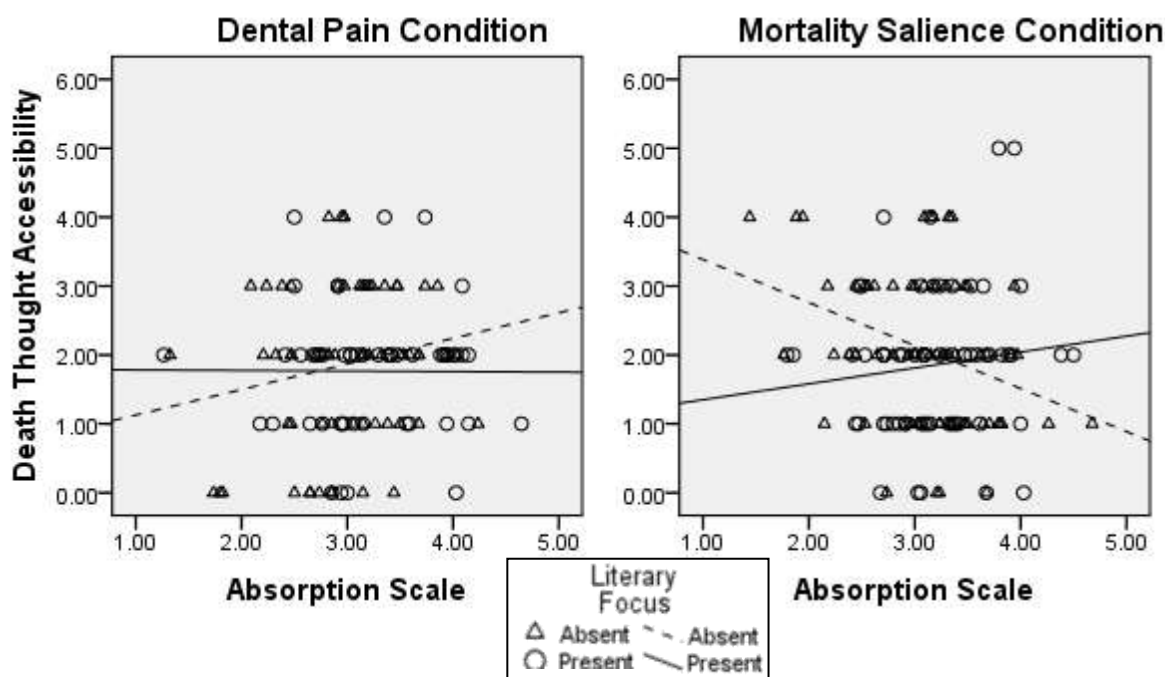


Figure 9. Three-way interaction of condition, literary focus classification, and absorption on death thought accessibility.

focus' classification and the two levels of transportability, revealed only one marginally significant simple main effect. Death thought accessibility was slightly higher for participants who were not classified with a literary focus, compared to those who were, if they were high on transportability and in the dental pain condition, $t(60) = 1.70, p = .095, M_{absent} = 2.06(1.06), M_{present} = 1.65(0.88)$. In contrast, t-tests conducted for condition at the two levels of 'literary focus' classification and the two levels of absorption revealed two simple main effects. For participants low in absorption and the mortality salience condition, those classified with 'literary focus' had significantly less death thought accessibility than those who were not, $t(60) = 2.72, p = .009, M_{absent} = 2.29(1.04), M_{present} = 1.61(0.91)$. Additionally, death thought accessibility was marginally significantly higher for participants in the mortality salience condition than the dental pain condition if participants were low on absorption and not classified with 'literary focus,' $t(46) = -1.73, p = .088, M_{DP} = 1.77(1.35), M_{MS} = 2.29(1.04)$.

Influence of Manipulation

Although neither the denigration nor self-modifying feeling variables discussed were more frequent in either condition, even when controlling for personality, the 'literary focus' classification was significantly more likely to occur in the mortality salience condition, $\chi^2(1) = 4.95, p = .026, \Phi = .10, \hat{p}_{DP} = .38, \hat{p}_M = .48$. Furthermore, a binary logistic regression with condition and transportability accounted for 2.7% of the variance in the probability of being classified with the 'literary focus' experience. There was a significant main effect of condition, Wald $\chi^2(1) = 5.0, p = .025, Odds\ ratio = 11.86, 95\% CI [1.26, 103.67]$, a significant main effect of transportability, Wald $\chi^2(1) = 4.37, p = .037, Odds\ ratio = 1.33, 95\% CI [1.02, 1.73]$, and a marginally significant interaction, Wald $\chi^2(1) = 3.31, p = .058,$

Odds ratio = 0.7, 95% CI [0.48, 1.01]. Similarly, a binary logistic regression with condition and absorption accounted for 3.9% of the variance in the probability of being classified with the ‘literary focus’ experience. There was a significant main effect of condition, Wald $\chi^2(1) = 7.73, p = .005$, Odds ratio = 20.44, 95% CI [2.44, 171.42], a significant main effect of transportability, Wald $\chi^2(1) = 8.39, p = .004$, Odds ratio = 2.07, 95% CI [1.27, 3.40], and a significant interaction, Wald $\chi^2(1) = 6.02, p = .014$, Odds ratio = 0.44, 95% CI [0.23, 0.85].

The predicted probabilities of the ‘literary focus’ classification is displayed in Figure 10. To further analyze the interactions, a mean split was applied to the transportability and absorption scores, and chi-square tests were conducted on the frequency of ‘literary focus’ classifications between each condition. There was a higher frequency of ‘literary focus’

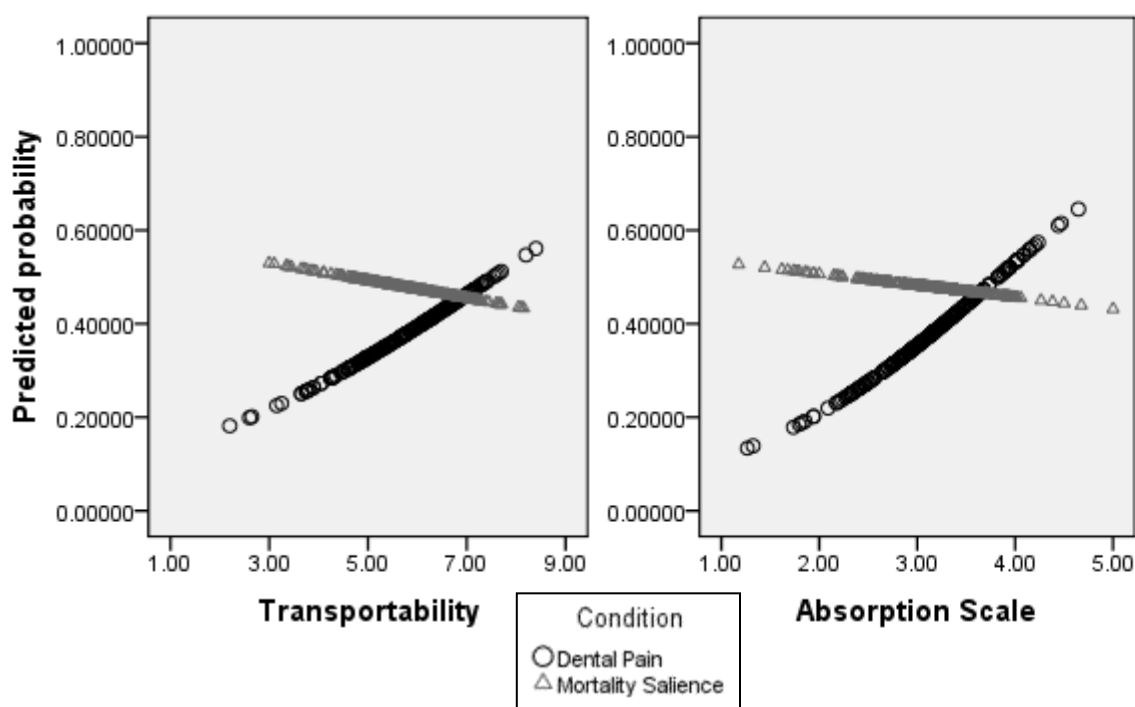


Figure 10. Predicted Probabilities of the ‘Literary Focus’ Classification.

classification in the mortality salience condition than the dental pain condition for participants low in transportability, $\chi^2(1) = 7.29, p = .007, \Phi = .18, \hat{p}_{DP} = .33, \hat{p}_M = .50$, and absorption, $\chi^2(1) = 11.66, p = .001, \Phi = .23, \hat{p}_{DP} = .31, \hat{p}_M = .53$. There was no difference in frequency for participants high on transportability or absorption.

Exploratory Discussion

Evaluating each individual category coded in the content analysis allows for a greater understanding of the relation between viewers' experiences with the episode and terror management processes. Three types of experiences emerged as influencing death thought accessibility: denigration of aspects of the episode, self-modifying feelings, and attending in various ways to the literary creation of the narrative. Additionally, these three types of experiences appear to be very distinct because they each moderate the relation between condition and personality on the death thought accessibility differently.

The denigration classification only predicted death thought accessibility in the dental pain condition when interacting with transportability. Although the conclusions drawn from this test require greater power and replication to further support this finding, the general trend was for participants higher on transportability to denigrate the show more if they were in the dental pain condition. Theoretically, this finding is important because it relates to the theoretical prediction that people often denigrate or dismiss information that is found to be threatening of one's CWV. Although evaluative feelings were the classification of interest previously discussed following study 1, this category represented any reactions towards the show as a whole and was not divided into positive or negative reactions. Future content analyses should include a category to designate participants who express any derogatory or

negative statements towards any aspect of the show to create a more robust classification that may be used to better test the function of this process in a literary context.

The other interesting thing to note about the denigration category is that the effect only occurred in the dental pain condition, where participants were not primed with death and were not expected to have any increase in death thought accessibility. Research conducted utilizing the anxiety buffer hypothesis of TMT has found support that a mortality salience manipulation is not necessarily required for the increase of death-related thoughts. In particular, such work has prompted the development of a broad-level death thought accessibility hypothesis (Schimel, Hayes, Williams, & Jahrig, 2007). This hypothesis follows that if psychological structures protect against death thoughts, then threatening such structures ought to be sufficient to increase death thought accessibility. As with other TMT hypothesis, refortifying these psychological structures then, through bolstering of the CWV or denigrating the source of the threat, would reduce death thought accessibility. As there are many components that can make-up the CWV, studies have found that threats to various types of beliefs can increase death thought accessibility in the absence of a mortality prime (Hayes, et al., 2010) including threats to personal need for structure (Landau, et al., 2004), just world beliefs, (Hirschberger, 2006), nationalism (Schimel, et al. 2007), creationism (Schimel, et al. 2007), religious fundamentalism (Friedman, & Rholes, 2007), and faith in progress (Rutjens, van der Plight, & van Harreveld, 2009).

The fundamental hypothesis of the current investigation is that self-modifying feelings are psychological processes that can protect against death thoughts. These processes of personally identifying with the story are, in general, more likely to occur for people high on measures of transportability and absorption. These participants, then, without any other

motivations, may have desired to immerse themselves and identify with the story while watching the episode, but been prevented from doing so by the novelty or unexpected aspects of the episode. The presence of Muppets, the fact that the show was obviously created for children, or other aspects of the show may have been particularly difficult to identify with, as some participants explicitly expressed: “I felt like I could understand the situation and that the situation merited more concern most likely because I can identify with Doc more than Gobo due to the fact Doc is human” (P145).

If the process of personally identifying with the story serves a protective function, as hypothesized, then being prevented from engaging in the story in this way may have been threatening to them and thus activated death thoughts. In this way, denigrating the show would have served as a way to reduce the threat, as predicted by this particular death thought accessibility hypothesis (Schimel et al. 2007) and TMT in general (Arndt, et al., 2004; Landau et al., 2006). Considering the earlier discussions on temporal importance and when these feelings occur and serve to effectively reduce death thoughts, which need to be considered in future studies, the increase in death thoughts may reflect the perceived threat the show had on these participants. The expected decrease may only occur after sufficient reflection and active denigration on the part of the viewer. As they were watching the show, negative thoughts may have been occurring, but the show was still playing and thus still acting as a threat. At the time of death thought accessibility measurement, they may not have yet satisfactorily derogated the show for the threat to be effectively reduced.

In this way, participants low on transportability may not have found the episode threatening or disturbing of the way they would usually watch a television show, and thus were not motivated to express negativity towards it. In the mortality salience condition,

however, processes to suppress and cope with death anxiety would have already been underway before the episode began. As such, participants in the mortality salience condition may have actively employed other methods of protection to reduce death anxiety. Those high on transportability may have, thus, chosen processes related to being transported to deal with this threat, such as self-modifying feelings.

Importantly, the exploratory analyses conducted with self-modifying feelings support this. Kuiken, Phillips, et al. (2004)'s operational definition of self-modifying feelings appears to be the best, as this category was the best of all possible alternatives in predicting death thought accessibility. Although study 2 did not test a hypothesis regarding the moderating role of personality in the relation between self-modifying feelings and death thought accessibility, it would have been proposed, drawing from previous research and similar to the hypothesis in study 1, that participants inclined to transport themselves, or be absorbed into, a story may do this because it serves a protective, terror management, function. This was supported in the exploratory analysis test of the three-way interaction between self-modifying feelings, condition, and personality on death thought accessibility.

Although the overall frequency of self-modifying feelings was about equal in both conditions, participants who were high on absorption or transportability had significantly more death-related thoughts if they were in the mortality salience condition and experienced a self-modifying feeling. Participants with the inclination to become engaged with stories and likewise more apt in general to blur the line between the narrative and their self may utilize these feelings as a way to bolster their own CWV and cope with death anxiety. This, of course, rests again on the supposition that these processes were not adequately captured in

the methodology used by the current studies and the temporal factor of when experiences occur must be reconsidered.

The third type of experience that emerged to be significantly related to the mortality salience manipulation and death thought accessibility was a surprise. Although traditional aesthetic experiences are discussed as these awakening or transcendental moments that occur while engaging with art and the focus on specific features of how the piece was created may be part of that experience, this focus not considered to be related to the bolstering or protecting of CWVs and thus not hypothesized to be affected by the manipulation or influence death thought accessibility. Studies 1 and 2 supported this supposition as the original construction of aesthetic feelings was not found to be related to either construct; however, the exploratory analyses revealed that, when the category was deconstructed, a focus on literary elements of story creation was important.

A literary focus experience differed from denigration and self-modifying feelings in important ways that may provide more overall insight into participants' experiences with the episode. First, participants in the mortality salience condition were significantly more likely to focus on literary elements than those in the dental pain condition, whereas there was no difference in likelihood for the other two experiences based on condition. Second, significant simple main effects of the 'literary focus' classification only occurred at the low absorption level, in contrast to the simple main effects of self-modifying feelings which occurred at the high level of absorption and transportability. Third, it was the absence of a 'literary focus' that predicted a higher death thought accessibility compared to the presence of self-modifying feelings or denigration of the episode.

These patterns may further support the hypothesis drawn from previous research on terror management and literary experiences as well as suggested interpretations of the results of study 1 and 2. The protective function of self-modifying feelings was theorized to be only for those who often immerse themselves in stories and are skilled at blurring the lines between story and self. As the focus of the investigation was on the functional role of aesthetic experiences, other potential experiences with stories that may also serve a terror management purpose were not considered. Nevertheless, it is completely within the assumptions of TMT that there are many different processes that can alleviate death anxiety and specific processes may only be employed by certain people with particular CWVs (Landau, et al., 2006, Landau, Sullivan, & King, 2010, Mikulincer & Florian, 2000). As such, people low on absorption may have employed this different method to cope with the death anxiety.

Additionally, attending to the elements used in the creation of the story may be more related to a general understanding of the story and occur while engaging with the text, rather than require additional contemplation, reflection, and/or emotional involvement or regulation to occur. In this way, the temporal consideration of when which feelings occur may explain why it was the absence, as opposed to the presence, of a 'literary focus' classification associated with the higher death thought accessibility. Participants may have been focusing on the creation of the story during the episode itself to understand the narrative and thus the protective function it may serve occurred prior to and was captured by the death accessibility measure. Clearly, additional studies that specifically assess change in death thought accessibility at different temporal points are needed to address this interpretation.

CHAPTER 6. GENERAL DISCUSSION

The goal of the current investigation was to determine if self-modifying feelings, as a form of aesthetic experiences, potentially functioned to protect some from the fears of mortality. The results of the current investigation, however, were anything but simple. Some hypotheses were supported and others were found to be opposite from the predicted direction. Moreover, experiences not expected to be related to terror management were found to be. Two major things are clear, though, from the current investigation: experiences with stories can serve some sort of terror management function and future research is needed to better capture and understand these processes.

The primary experience considered in these two studies was that of self-modifying feelings. Some participants identified with the story through personal similes, directly relating a part of their lives to something in the narrative, and some through metaphor, expressing a connection between their own experience, a character's experience, and the experiences of people in general. Drawing from previous research in the areas of literary experience and terror management theory, along with previous theoretical discussions on aesthetic experiences, it was theorized that self-modifying feelings may be a method people who are inclined to become absorbed in stories would employ to cope with death anxiety.

Specifically, it was hypothesized that participants would be more likely to experience self-modifying feelings after a mortality salience prime and that experiencing a self-modifying feeling would lower death thought accessibility. Additionally, it was thought that this would be the only type of feeling affected by the manipulation, of the four types of feelings described in the literary research, because of their seemingly unique ability to bolster participants' current beliefs about the world and provide them with a sense of connectedness

to something larger and enduring (CWVs). The results, however, did not support this set of hypotheses. Self-modifying feelings were no more likely in the mortality salience condition than the dental pain condition. Self-modifying feelings were actually associated with higher death thought accessibility scores. Other types of feelings were found to be related to terror management in addition to self-modifying feelings. Presented with these findings, there are a number of theoretical and methodological alternatives that need to be considered to understand the relation between participants' experiences with the story better and their processes of terror management.

The first important theoretical consideration is that there may be multiple experiences people can have with stories that serve a terror management function. In addition to self-modifying feelings, study 1 found that evaluative feelings, or reactions to the overall story, or particularly negative reactions (identified in the exploratory analyses) were found to potentially serve a terror management function. Previous research in TMT has established that when one's CWV is threatened, particularly after mortality has been made salient, people will denigrate the source of the threat (Landau et al, 2006, Arndt, et al., 2004). This relates to the first important methodological consideration: participants may have found certain aspects of the show threatening to their CWV. Participants may have disliked being asked to watch a children's show, been put off by the shows use of Muppets, or been threatened by some of the messages or characters in the story. Rather than embracing the episode as a means to bolster their own CWV and protect them from death anxiety, they may have found the episode too dissimilar from their own CWV and denigrated it as a means to protect their own.

Denigration of the episode was found to be most related to death thought accessibility for participants high on absorption in the dental pain condition. As there was no mortality salience manipulation for participants in this condition, it was expected there should be minimal death thought accessibility. Instead, finding the show inappropriate for children or feeling the need to derogate one of the primary characters was associated with heightened death thought accessibility. In this way, content of the television episode may have threatened some participants CWVs without an initial mortality salience prime. Previous TMT research has found that death thoughts will increase in reaction to CWV threats without the presence of a previous morality prime (Hayes, et al., 2010). Future research should then incorporate different stimuli and utilize narratives that may be more accessible to participants. Similarly, content analyses coding should expand the coding processes to allow for more identification of negativity expressed towards the story and better capture this experience.

In addition to evaluative and denigrating feelings, the exploratory analyses revealed that some participants were more likely to focus on the literary elements used in developing the story and characters if they were in the mortality salience condition. Furthermore, the analyses showed that these feelings predicted death thought accessibility for those low on absorption and transportability, in contrast to the other feelings being related to those high on these personality constructs. This fits with the first theoretical consideration that other feelings may serve a terror management function and that there are individual differences in how people cope with death thoughts (Landau, Sullivan, & King, 2010; Mikulincer & Florian, 2000). In this way, self-modifying feelings may only be a method employed for death anxiety alleviation by those prone to immerse themselves in stories normally. Rather

than engaging with stories in a way that blurs the lines between the self and the narrative, participants who do not often immerse themselves may find understanding the narrative and the way it was created to present the story serves a protective purpose by making sense of the information being presented to them. Previous research in TMT has often found the personality construct of Personal Need for Structure (Thompson, et al. 2001) valuable for identifying processes some people utilize to alleviate death anxiety, such as the work by Landau et al. (2006) on reactions to abstract art, as some people cope best when they are able to structure information they are presented with in meaningful ways. Future research ought to include of a measure of personal need for structure, as it may be people who are high on this construct that would be motivated to make sense of the story, particularly the current one with its unusual story line of invisible creatures living underground.

The second important theoretical consideration also comes from the results of tests conducted with the experience of focusing on literary elements and story development. The anxiety buffer hypothesis of TMT utilized in the design of study 2 suggests that there will be a decrease in death thought accessibility after protective processes have occurred. This is exactly what was found for participants who had this type of experience: low absorption participants in the mortality salience condition who had focused on literary development had lower death thought accessibility than those who had not focused in this way. The anxiety buffer hypothesis would then suggest the interpretation that focusing on literary development served to alleviate death anxiety for low absorption participants. In contrast, the same test conducted with self-modifying feelings, and with denigration feelings, found that participants who experienced these feelings had higher death thought accessibility immediately after viewing the episode. The anxiety buffer hypothesis would then suggest that self-modifying

feelings and denigration may actually increase death anxiety for some participants, rather than serve a protective function.

This alternative hypothesis is a viable one, but needs further testing to confirm it. Additionally, the second methodological consideration is related to this finding. As previously discussed, the assumption that the content analysis was capturing feelings that occurred *during* the episode ought to be reconsidered. Some feelings, particularly those that are emotionally complex, may require sufficient time and contemplation to fully express. Given that participants may have been limited in their ability to express fully some emotions during the episode, experiences, like self-modifying feelings, may not have had the opportunity to be sufficiently processed at the time death thought accessibility was measured. Focusing on the development of the story, and considering the literary elements utilized, may occur more naturally while viewing the episode as participants try to follow the plot and anticipate where the action is going. There may then be an important temporal factor to consider when studying the feelings and experiences people have with narratives, particularly narratives presented on screen when the pace is determined by the creators of the story rather than the audience. Measuring death thought accessibility at various times is necessary in future studies to ensure that changes in accessibility are accurately reflected and ample opportunity has been allowed for participants to express emotions that can potentially serve to lessen death thought accessibility.

The third important theoretical and methodological considerations speak to the personality constructs measured in the study and previously established to be related to self-modifying feelings. Transportability and absorption were also found to be related to other types of feelings experienced with the episode; however, these two constructs were not

always related to the variables in the same manner. Although previous research often considered these two constructs interchangeable, and they may be similar in their ability to predict experiences with narratives, there were clear differences when each was able to predict death thought accessibility. For instance, for participants in the mortality salience condition who experienced a self-modifying feeling, there was a significant positive relation between death thought accessibility and transportability but not absorption. Additionally, the differences in death thought accessibility for participants in the mortality salience condition who did and did not focus on literary elements in narrative development was only significant for participants low in absorption. The same test conducted with participants low in transportability was not significant.

At this point it cannot be deduced whether the construct of transportability or absorption is the better measure overall, as some effects were found with transportability whereas others were found with absorption. Although part of these differences may be due to low power of the tests, and future research needs to address the possibility that a sufficient sample size would produce significant effects for both constructs, it appears that one construct may be more sensitive in predicting certain types of outcomes than the other. Transportability is a measure specifically designed to capture a propensity to become engaged with the media. Absorption, on the other hand, is more general to absorptive experiences in multiple areas of life and, even though it includes items pertaining to immersion with media, also has subscales relating to vivid memories, enhanced cognition and awareness, and syntheses. The importance of transportability, rather than absorption, for self-modifying feelings and death thought accessibility may be attributable to the sensitivity of this measure to relate to experiences with the media explicitly. In contrast, the

strong relation between a focus on literary elements and death thought accessibility may require a measure that captures a more general propensity for absorption. Focusing on literary features may only be a method adopted for terror management purposes by people who are not inclined to become absorbed not only in media but perhaps their own emotions and thoughts as well. In this way, the transportability measure is not sufficient in capturing this broader inclination. Future studies into different literary feelings, whether or not they are related to a terror management function, ought to incorporate multiple personality measures to understand the nuances of each experience best and the individual differences that drive them.

The final point of theoretical and methodological consideration pertains to the results of study 1 demonstrating that the previously established relation between absorption and self-modifying feelings was found in the dental pain condition but diminished in the mortality salience condition as well as the results of the exploratory analyses finding additional experiences relating to terror management. As already discussed, participants in the mortality salience condition may have utilized different types of experiences to alleviate death anxiety; however, what needs to be further considered is how these different experiences co-occur, or are mutually exclusive, and how they interact in successfully coping with death fear. As was suggested following the analyses of study 1, some experiences, such as self-modifying feelings, encourage viewers to immerse themselves into the show and connect themselves with the characters and story. Other expressions, however, such as denigrating the show or characters, force participants to distance themselves from the show and discourage identifying shared experiences. Experiences, such as the focus on literary development of the narrative, also may not require the participant to immerse themselves

with or distance themselves from the story. Furthermore, any of these experiences, as is suggested by the current research, may serve a terror management function. Although participants high on absorption may be more likely to experience self-modifying feelings normally, the results here suggest that they are not necessarily more likely to utilize this particular method to cope with death anxiety. They may instead be employing different types of processes as they engage with the story to alleviate mortality concerns.

A limitation of the current studies is in its ability to address issues pertaining to the co-occurrence of particular types of experiences with the story. Although tests were conducted to test the co-occurrence of experiences, these were limited to experiences measured in the content analysis. Participants were only asked to describe their top three sequences, but this is not to say they only had feelings during these three. The methods used in this study were unable to allow for the identification of every feeling experienced by the participant. Therefore, any conclusions drawn on the inclusivity or exclusivity of certain types of experiences would be very limited using this method. Before questions can be answered about which types of experiences particular participants use, or don't use, to cope with death anxiety, more research is needed to understand more fully how these feelings interact and who may be more inclined to experience them. Rather than forcing participants to select three sequences to write about, guided interviews or questionnaires that ask participants to reflect on and discuss the entire episode, allowing them to spontaneously discuss any and all scenes they choose, would be more illustrative of the participants authentic experience with the story.

Despite the limitations of the current study, there is information to suggest that experiences with narratives may serve a terror management function as these feelings were

significantly related to mortality salience and death thought accessibility. Furthermore, although they were not the only experiences to be related to the mortality salience manipulation or death thought accessibility, self-modifying feelings did have a unique relation with these and personality. Further research is clearly needed to understand these relations better, as well as the role other types of experiences play. Nevertheless, the identification of shared experiences among the viewer, the characters, and others, the key component of self-modifying feelings that classifies it as a traditional aesthetic experience and connects it to the idea of peak experiences, is certainly more than a feeling without function.

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