LINKING CONTINGENT SELF-WORTH AND TERROR MANAGEMENT THEORY

A Thesis Submitted to the Department of Psychology in Partial Fulfillment of the Requirements
for the Degree of Bachelor of Arts (Honours) in Psychology

University of Regina

by

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Abstract

Self-esteem has been shown to act as a buffer between the self and death anxiety. Consequently, lowering self-esteem results in an increase of death anxiety. This basic hypothesis of Terror Management Theory (TMT) has been supported by a vast number of studies. However no study has used the Contingencies of Self-Worth (CSW) Theory – a theory of self-esteem that suggests threats to one’s self esteem must occur in a domain relevant to one’s self-worth to be effective – to assess the self-esteem buffer hypothesis. To determine if death anxiety is higher when participants experience a threat to a relevant domain in which their self-worth is highly contingent, 101 undergraduate students from the University of Regina Psychology Department Participant Pool were recruited for an online study. After completing the Rosenberg Self-Esteem Scale (RSE) and the Contingencies of Self-Worth Scale (CSWS), participants filled out one of three possible open ended question depending on which of one of three threat conditions they were randomly assigned to: appearance threat ($n = 33$), academic threat ($n = 33$) or control ($n = 35$). All participants then filled out the Collette-Lester Fear of Death (FDS) death of self and dying of self subscales. Unlike previous studies, both threat conditions proved unsuccessful in increasing death anxiety scores compared to the control. High CSW scores were associated with lower rather than higher death anxiety scores. Threatening a single domain may not have increased death anxiety due to the strong associations between CSW domains as having multiple domains on which self-esteem is highly contingent may help to dissipate threats focused on a single domain.
Acknowledgements

I would like to thank my supervisor, Dr. Donald Sharpe, for all he has done while overseeing this project. Without his patience, encouragement, knowledge and guidance, this thesis would not have been possible.
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LINKING CONTINGENT SELF-WORTH AND TERROR MANAGEMENT THEORY

Imagine you are driving a brand new car through the prairies on a bright summer afternoon, clear smooth asphalt stretching out for miles ahead, the engine purring. Now imagine you are driving a thirty-year old lemon for a car, desperately clinging to the twists and turns of a mountain road as a snowstorm whirls above you, wipers frantically swiping, headlights hitting a wall of white, the engine sputtering and popping.

Regardless of which driving scenario, the possibility of getting into a collision is a real one, but likely this worry is more immediate when in the lemon car scenario than the new car scenario. Your driving confidence is based on a number of factors, and the more those factors boost driving confidence, the more comfortable you are driving and so the less concerned you are about a collision. Yet when things start to make you doubt your driving ability, the fear of that potential collision creeps to the forefront of your mind.

Now imagine your driving confidence is your self-esteem. And rather than worrying about a collision, you are worried about death. Self-esteem, like driving confidence, is dependent on a number of factors and the higher it is, the less immediate the anxiety about death is in one’s mind.

Self-Esteem and Self-Worth

In 1965, Rosenberg introduced the Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1989) in an attempt to provide a standardized measure of self-esteem. The RSE was developed in response to the growing body of research regarding self-esteem in the 1960’s. Such research continues today.

Self-esteem became a large research focus, in part, because everyone has some sense of self, and therefore everyone has some vested interest in the self (Rosenberg, 1989). Self-worth is
the belief one holds about how valuable one is as a person (Crocker & Wolfe, 2001). Because self-esteem can be defined as a reflection of one’s inner feelings of self-worth (Crocker & Wolfe, 2001), high self-esteem is widely regarded to be an inherently good thing because high trait self-esteem is associated with high self-worth. As such, instilling high self-esteem in the population has been a focus of many educational efforts. Books such as *101 Ways to Develop Student Self-Esteem and Responsibility* (Canfield, & Siccone, 1993) and *Student Self-Esteem: A Vital Element of School Success* (Walz & Bleuer, 1992) are examples of works from the 1990’s that focused on building self-esteem in children. This task of building children’s self-esteem was largely based on evidence that high self-esteem is associated with positive psychological outcomes such as lower rates of depression (Crocker, Kerpinski et al., 2003; Lakey et al., 2014; Rosenberg 1989).

While high self-esteem is most often associated with desirable traits, surprisingly high self-esteem has also been linked to clearly undesirable traits such as narcissism (Crocker, Luhtanen et al., 2003), defensiveness (Kernis, 2003), and aggression (see Baumeister et al., 1996). This high self-esteem duality may be understood by viewing self-esteem as reflecting the stability rather than the quality of one’s self-worth, in other words what Kernis (2003) termed secure versus fragile high self-esteem. *Secure high self-esteem* is when feelings of high self-esteem are based on a secure sense of self and self-worth. Those with secure high self-esteem are upset when they perform poorly, for example, but their disappointment is directed strictly towards the elements of their performance and not their overall sense of personal value. In contrast, *fragile high self-esteem* is when feelings of high self-esteem are vulnerable to performance that is negative. Unlike those with secure high self-esteem, the sense of value of individuals with fragile high self-esteem is threatened by negative life experiences. Thus, individuals with fragile high self-esteem must seek out and reside only in those environments
where their performance feeds their self-esteem. It is because of this limitation that we sometimes see defensiveness or other negative qualities in those with fragile high self-esteem (Kernis, 2003).

For individuals with fragile self-esteem, their sense of value is dependent or contingent on performance or circumstantial outcomes (Kernis, 2003). While those with fragile self-esteem may react poorly to threats to the self, the question of why self-esteem decreases in response to some types of threats but not others remains unanswered. To address this question, Crocker and Wolfe (2001) developed the domains of Contingent Self-Worth Theory.

**Contingent Self-Worth**

According to the developers of Contingent Self-Worth (CSW) Theory (Crocker & Wolfe, 2001), state levels of self-esteem fluctuate depending on which of seven domains of self-worth are targeted by a threat. Domains identified by Crocker and Wolfe were derived from a factor analysis conducted on the responses of college students to items thought to assess self-worth. Seven statistically distinct factors were identified: *family support, competition, appearance, God’s love, school competence, virtue and approval from others* (Crocker, Luhtanen et al., 2003; Crocker & Wolfe, 2001). Each of these domains of self-worth are more or less valued by each individual and may influence both state self-esteem and behaviours. For example, if an individual values the *appearance* domain, then situations that threaten their physical appearance may result in lower self-esteem. Alternatively, situations that threaten the *school competence* domain (e.g., poor academic performance) may not necessarily result in lower self-esteem for someone high in the *appearance* domain but will threaten someone high in the *school competence* domain. The interaction between one’s self-esteem and the degree to which one’s
self-worth is contingent on the domain being threatened has been shown to regulate one’s response to that threat (Parks & Maner, 2009).

Crocker and Wolfe (2001) noted that having one’s self-worth based in domains which rely upon the evaluation of others – such as appearance or approval from others – may prove more problematic than for those domains which do not. Indeed, those whose self-worth is based in appearance and approval from others have been shown to engage in body surveillance behaviours more often than those with their self-worth based in school competence, God’s love, and family support (Overstreet & Quinn, 2012). Further contributing to the notion of potential negative effects of particular domains of CSW, higher appearance contingent self-worth has shown to be predictive of disordered eating behaviours in those with maladaptive perfectionistic tendencies (Bardone-Cone et al., 2017). However, having highly contingent self-worth may be problematic regardless of domain, as college students highly contingent in school competence were found to experience lower levels of self-esteem and more negative affect than their peers even when not experiencing an active threat (Crocker, Karpinski et al., 2003).

Why individuals base their self-worth in some domains and not others is still a mystery. Some suggest that self-worth and self-esteem may be influenced by personality (Zeigler-Hill et al., 2015). Others suggest that because through parents and cultural context individuals are taught what is valuable, it is the internalization of these taught values that influences what an individual perceives as value, and therefore how one feels valuable (Crocker & Park, 2004).

Terror Management Theory

In the early 1970’s, cultural anthropologist Ernest Becker (1973) analyzed the works of philosophers, psychologists, and other scholars in his book The Denial of Death. Based on this analysis, Becker concluded that knowledge of one’s death is an innate and ever-present source of
anxiety and terror, kept docile thanks to defense mechanisms such as repression. It was from Becker’s writings that Terror Management Theory (TMT) was conceived. Unhappy with the way research was being conducted in social psychology (Greenberg & Arndt, 2012), Solomon, Greenberg, and Pyszczynski (2004) came up with TMT as a way to marry existential and experimental psychology. To bring the existential theories in Becker’s work into the realm of experimental psychology, Solomon and colleagues formulated a few fundamental hypotheses to empirically test TMT. One such hypothesis was that self-esteem is a cognitive process used to create a buffer between existential anxiety and one’s sense of self.

**TMT and Self-Worth**

Similar to how fight or flight is a biological process that the body uses to protect an individual’s physical well-being from harm, there are cognitive processes that protect our psychological well-being by creating a buffer between the self and the knowledge of impending and inevitable death (Solomon et al., 2004). One’s sense of power (Belmi & Pfeffer, 2016), and high self-esteem (Greenberg & Arndt, 2012) are but two of a number of such cognitive process used to suppress existential anxiety (see Juhl & Routledge, 2016). There is the view that all anxiety derives from the basic anxiety provoked by death (Becker, 1973; Greenberg et al., 1992). Greenberg and colleagues (1992) found that manipulations that increased self-esteem in the laboratory decreased both self-report measures and physiological indicators of anxiety. Thus, self-esteem is not only a buffer to mortality related anxiety (Abeyta et al., 2014; Routledge, 2012; Schmeichel et al., 2009; Wisman et al., 2015), but also to anxiety more generally (Ishizu, 2017).

Greenberg and colleagues (1992) suggest that self-esteem is sustained by living up to the standards of what is considered valuable in a specific culture and worldview. As such, people
form and maintain feelings of self-worth that are unique to their own culture (Juhl & Routledge, 2016). Crocker and Wolfe’s (2001) theory of CSW falls in line with this suggestion, as their theory suggests that self-worth is unique to individuals. Crocker and Parks (2004) propose that the domains in which individuals base their self-worth are dependent upon early childhood experiences with parents. Thus, individuals come to internalize values they grew up with and learned from their parents (Greenberg et al., 1992).

**Present Study**

As discussed in the literature reviewed, an individual’s state self-esteem may be impacted if they feel threatened in domains relevant to their self-worth. Additionally, there has been support for the TMT self-esteem as a buffer hypothesis in regards to existential and other forms of anxiety. The link between the domains of CSW and the TMT buffer hypothesis is alluded to by some (e.g., Crocker & Park, 2004; Park & Maner, 2009), however, there appears to be no research that provides empirical evidence for this assumed relationship. As such, the present study seeks to provide the missing link between these theories by examining if death anxiety is higher among those who experience a threat to a relevant domain in which their self-worth is highly contingent compared to those whose relevant domains are not threatened.

Seeking to directly test the effects of self-esteem on death anxiety, Routledge (2012) manipulated self-esteem in three conditions: a threatening self-esteem condition, a bolstering self-esteem condition, and a non-self-threat control condition. Undergraduate participants in the threatening self-esteem condition were asked to think of and describe a time they failed to live up to one of their most important values. Participants in the bolstering self-esteem condition were asked to think of and describe a time they successfully lived up to one of their most important values. Finally, those participants in the control condition were told to think about and explain
the emotions associated with dental pain. Death anxiety was assessed by a self-report measure of fear of death. What Routledge found was that those participants whose self-esteem was threatened had higher death anxiety than those participants whose self-esteem was bolstered or not threatened.

Following a similar methodology to Routledge (2012), in the present study the intention is to manipulate self-esteem threat to assess impact on death anxiety but have that threat be specific or not to a participant’s highly contingent domain of self-worth. Based on the reviewed literature, the expected result will be that those participants threatened in a domain in which their self-worth is highly contingent will show greater death anxiety than participants threatened in a less contingent domain.

Method

Participants

Once approval from the University of Regina Ethics Board (see Appendix A) was obtained, 101 psychology undergraduate students (27 males; 73 females; 1 not specified) were recruited from the University of Regina Psychology Department Participant Pool. Participants of this online study earned an additional 1% added to their final grade in a 100- or 200- level psychology class. Participants were between the ages of 18 and 38 (M = 21.9; SD = 4.22) and identified majority white/Caucasian (n = 51). A majority of participants (65.5%) reported a specific religious identity such as Christian (n = 20) while a minority reported to be spiritual (n = 6), have no religious identity (n = 16) or identified as atheist (n = 9) or agnostic (n = 4).

Measures

Self-Esteem. Rosenberg’s Self-Esteem Scale (RSE; Rosenberg, 1989) is a widely used, 10 item measure of self-esteem. The RSE is considered to be unidimensional and has been shown to
have good reliability and validity in applications across a variety of settings and cultures (e.g., Schmitt & Allik, 2005). Participants respond on a four-point Likert scale from strongly agree to strongly disagree to items such as “I certainly feel useless at times” (see Appendix C).

*Domains of Contingent Self-Worth.* The Contingencies of Self-Worth Scale (CSWS; Crocker, Luhtanen, et al., 2003) consists of 35 items (five items per each of the seven domains) that participants respond to using a seven-point Likert scale (strongly disagree to strongly agree). The measure has good reliability and validity in previous research (e.g. Crocker Luhtanen et al., 2003; Mageau et al., 2011). Scores from the CSWS determined both the domains participants most strongly base their self-worth in as well as the extent to which their self-worth is contingent on those domains (see Appendix D).

*Death Anxiety.* The outcome measure of this study is the revised Collette-Lester Fear of Death Scale (FSD; Lester, 1990), specifically the Death of Self (FSD-death) and Dying of Self subscales (FDS-dying). These subscale assess overall feelings of distress in regards to one’s mortality. Participants will respond on a five-point Likert scale (5-very, 3-somewhat, 1-not) as to how disturbing or anxiety provoking they find each item (e.g., “dying young”; Lester, 1990). Each subscale is comprised of eight items and the items are summed to determine an overall death anxiety score. The FDS subscales have been shown to have good internal consistency and stability, and strong correlations with other measures of fear of death (Mooney & O’Gorman, 2001).

**Procedure**

Given the type of participants available for this study (university undergraduate students), *physical attractiveness* and *school competency* were selected as the two domains to be threatened. These domains were chosen based on a few assumptions the first being that
contingency ratings would be fairly high in this sample; Crocker, Luhtanen and colleagues (2003) suggest that those in university will likely have high CSW in the school competency domain because of their academic setting, and Crocker and Wolfe (2001) found that among women, the score for physical appearance and school competence contingency ratings were similar. The second assumption is that the domains reflect unique enough aspects of the self that threatening one should not necessarily threaten the other (unlike for example school competence and competition, which could be closely related to one another in terms of wanting high grades to be the best in the class).

After obtaining informed consent (see Appendix B) and collecting basic demographic information, participants filled out both the RSE and the CSWS. Following the administration of these measures, participants were randomly assigned to one of three threat manipulations: an attractiveness threat (see Appendix E), an academic threat (see Appendix F), or a non-self-threat control (see Appendix G). Participants in the attractiveness threat condition were be given the following instructions:

\[
\text{We all have parts of our body or physical appearance that we are dissatisfied with or feel insecure about. Please take a moment to think about the aspects of your body or physical appearance/body/face that you do not like about yourself and [describe them in the space below]. (Parks & Maner, 2009, p. 206)}
\]

In the academic threat condition participants received the following comparable instructions: All students struggle with academics from time to time. Please take a moment to think about your most disappointing academic exam or assignment performances as a student and describe them in the space below (based on Buckingham, Weber, & Sypher, 2012; Parks & Maner, 2009).
Participants in the control group were asked the following: “Describe the emotions that the thought of dental pain arouses in you” (Routledge, 2012, p. 666).

After responding in writing to the condition to which they were assigned, all participants filled out the FDS subscales; Death of Self and Dying of Self respectively (see Appendix H). Finally all participants were thoroughly debriefed (see Appendix I).

**Results**

**Manipulation Check**

A one-way ANOVA was conducted to determine if the threat conditions impacted participants’ fear of death. Between the appearance threat \( (M = 22.9, SD = 8.77) \), academic threat \( (M = 22.1, SD = 10.0) \) and control conditions \( (M = 23.5, SD = 9.25) \), there were no differences found for FDS-death scores, \( F(2,98) = 0.20, p < .820, \eta_p^2 = .004 \). Similarly there were no differences between the appearance \( (M = 20.8, SD = 8.97) \), academic \( (M = 19.6, SD = 7.97) \) and control conditions \( (M = 19.2, SD = 8.19) \) for FDS-dying scores, \( F(2,98) = 0.35, p < .707, \eta_p^2 = .007 \).

**Predicting Death and Dying**

To run a hierarchical regression predicting scores on FDS-death, dummy codes of 1, 0, 0 and 0, 1, 0 were created for the appearance (condition 1) and academic (condition 2) threat conditions to serve as predictors in the first block. Predictors in the second block were academic and appearance contingency, and overall self-esteem was the predictor in the third block. While no predictors were found to correlate with the dummy coded condition variables, a negative correlation between FDS-death scores and appearance contingency was found, \( r (101) = -.21, p < .019 \), meaning that the greater a participant’s fear of death, the less that participant’s self-worth is contingent on their appearance. Appearance contingency also correlated with academic
contingency, \( r (101) = .52, p < .001 \), and self-esteem, \( r (101) = .29, p < .002 \). Self-esteem was also correlated with academic contingency, \( r (101) = .21, p < .019 \). These correlations show that participants with high self-esteem also tended to have their self-worth highly contingent in both academic competency and appearance domains, and that those participants with highly contingent self-worth in one of the domains were also highly contingent in the other domains.

Neither the first block, \( F(2,98) = .20, p < .820, R^2 = .004 \), the second block, \( F(4,96) = 1.2, p < .311, R^2 = .05 \) or the third block, \( F(5,95) = 1.05, p < .393, R^2 = .05 \), were statistically significant models, nor was the change between blocks 1 and 2, \( \Delta F(2,98) = .20, p < .82, \Delta R^2 = .004 \), or between blocks 2 and 3, \( \Delta F(2,96) = 2.22, p < .114, \Delta R^2 = .04 \), and none of the predictors in the models were statistically significant (Table 1).

The same hierarchical regression model with the same dummy coding and predictor variables was used to predict scores on the FDS-dying. As with the FDS-death regression, there were no predictors in the FDS-dying regression that correlated with the dummy coded conditions. FDS-dying was negatively correlated with academic contingency, \( r (101) = -.36, p < .001 \), appearance contingency, \( r (101) = -.29, p < .001 \), and self-esteem, \( r (101) = -.23, p < .01 \), showing that the greater a participant’s fear of dying, the lower their overall self-esteem, and the less that participant’s self-worth is contingent on their appearance or academic competency. Academic contingency was again correlated with appearance contingency, \( r (101) = .52, p < .001 \), and self-esteem \( r (101) = .23, p < .019 \). Self-esteem was also correlated with appearance contingency, \( r (101) = .29, p < .002 \).

While the first block with condition was not statistically significant, \( F(2,98) = .35, p < .707, R^2 = .007 \), the second block, \( F(4,96) = 4.12, p < .004, R^2 = .15 \), the change from the first to the second blocks, \( \Delta F(2,96) = 7.85, p < .001, \Delta R^2 = .14 \), as well as the third block \( F(5,95) = \)
Table 1

*FDS-Death Regression*

<table>
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<tr>
<th>Model</th>
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<th>( r )</th>
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3.82, \( p < .003, R^2 = .17 \), were all statistically significant. However the change from the second to third blocks, \( \Delta F(1,95) = 2.35, p < .128, \Delta R^2 = .02 \), was not statistically significant. Academic contingency was the strongest predictor of FDS-dying in model 2, \( \beta = -.28, p < .012 \), and model 3, \( \beta = -.27, p < .015 \) (Table 2). Correlations showed that all of the contingency domains were strongly associated with each other (Table 3).

**Other Effects of Condition Manipulation**

Due to the ineffectiveness of condition on death anxiety scores, one-way ANOVAs were conducted to identify if conditions had any meaningful differences on contingency and self-esteem measures. Note that these measures were administered before the manipulation. Looking at appearance contingency, \( F(2,98) = 1.49, p < .230, \eta_p^2 = .03 \), academic contingency, \( F(2,98) = .09, p < .913, \eta_p^2 = .002 \), and self-esteem, \( F(2,98) = .31, p < .731, \eta_p^2 = .01 \), no statistically significant differences were found between conditions. However looking at the other contingency measures, the appearance threat condition had higher God’s love contingency scores (Figure 1) than the other conditions, \( F(2,98) = 5.35, p < .006, \eta_p^2 = .10 \).

**Sex Differences**

For analyses regarding sex of participants, one participant who did not specify their sex was excluded. A 3x2 factorial ANOVA of condition by sex found a main effect for participant fear of death, \( F(1,94) = 8.01, p < .006, \eta_p^2 = .08 \), with males (\( n = 27 \)) reporting higher FDS-death scores and thus more death anxiety (\( M = 27.22, SD = 7.82 \)) than females (\( n = 73, M = 21.23, SD = 9.32 \); see Figure 2). No main effect for condition was found, \( F(2,94) = .11, p < .899, \eta_p^2 = .002 \), nor was the interaction of condition by sex statistically significant, \( F(2,94) = .13, p < .878, \eta_p^2 = .003 \). For fear of dying, a factorial ANOVA found a main effect for participant sex, \( F(1,94) = 6.68, p < .011, \eta_p^2 = .07 \), again with males reporting higher fear of dying scores (\( M = 23.30, SD = 7.30 \)).
### Table 2

*FDS-Dying Regression*

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<td>(Constant)</td>
<td>38.74</td>
<td>4.89</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Condition 1</td>
<td>1.56</td>
<td>1.91</td>
<td>.09</td>
<td>.08</td>
</tr>
<tr>
<td></td>
<td>Condition 2</td>
<td>.67</td>
<td>1.90</td>
<td>.04</td>
<td>-.03</td>
</tr>
<tr>
<td></td>
<td>Academic Contingency</td>
<td>-.39</td>
<td>.16</td>
<td>-.27*</td>
<td>-.36</td>
</tr>
<tr>
<td></td>
<td>Appearance Contingency</td>
<td>-.16</td>
<td>.18</td>
<td>-.10</td>
<td>-.29</td>
</tr>
<tr>
<td></td>
<td>Self-Esteem</td>
<td>-.26</td>
<td>.17</td>
<td>-.15</td>
<td>-.23</td>
</tr>
</tbody>
</table>

* *p < 0.05 (2-tailed).*
Table 3

CSWS Domain Correlations

<table>
<thead>
<tr>
<th>Domain</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Family Support</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Competition</td>
<td>.44**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Appearance</td>
<td>.22*</td>
<td>.40**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. God’s Love</td>
<td>.28**</td>
<td>.16</td>
<td>-.11</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Academic Competence</td>
<td>.44**</td>
<td>.54**</td>
<td>.52**</td>
<td>-.07</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>6. Virtue</td>
<td>.46**</td>
<td>.34**</td>
<td>.32**</td>
<td>.33**</td>
<td>.50**</td>
<td>-</td>
</tr>
<tr>
<td>7. Approval from</td>
<td>.13</td>
<td>.21*</td>
<td>.48**</td>
<td>-.18</td>
<td>.35**</td>
<td>-.02</td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p < 0.05 (2-tailed).
** p < 0.01 (2-tailed).
Figure 1

*CSWS God’s Love Domain Score by Condition*
Figure 2

*Condition by Sex FDS-Death Scores*
Figure 3

*Condition by Sex FDS-Dying Scores*
than females ($M = 18.66$, $SD = 8.13$; see Figure 3). No effect for condition was found, $F(2,94) = .13, p < .878, \eta^2_p = .003$, nor was the interaction of sex by condition statistically significant, $F(2,94) = .13, p < .878, \eta^2_p = .003$.

A 3x2 factorial ANOVA of condition by sex found a main effect approaching significance for participant sex on self-esteem scores, $F(1,94) = 3.87, p < .052, \eta^2_p = .04$. However, no main effects for sex were seen on appearance contingency, $F(1,94) = .862, p < .355, \eta^2_p = .009$, or academic contingency, $F(1,94) = 2.99, p < .087, \eta^2_p = .031$. No main effects for condition nor interactions of sex by condition were found for self-esteem, appearance contingency, or academic contingency.

**Discussion**

The current study was designed to assess if participants who experience a threat in a domain of self-worth in which they stake their self-esteem would show greater death anxiety than those participants threatened in a less contingent domain. Previous research has shown that threats aimed at self-esteem result in higher scores of death anxiety than non-self-esteem based threats – such as thinking about dental pain (Routledge, 2012) – providing support for the self-esteem hypothesis of TMT (Abeyta et al., 2014; Routledge, 2012; Schmeichel et al., 2009; Wiseman et al., 2015). Based on this line of reasoning, it was hypothesised that individuals in the appearance and academic threat conditions of this study would have higher death anxiety scores than those in the control condition because the former two threaten self-esteem while the latter does not. However, despite using threat manipulations similar to those which proved effective in previous studies (Parks & Maner, 2009; Routledge, 2012), the analysis of condition effect on death anxiety was not influenced by the manipulation.
According to Contingent Self-Worth Theory, domains of contingent self-worth are areas that people use to derive their sense of self-value and self-esteem (Croker & Wolfe, 2001). Fluctuations in situational – or state – self-esteem occur when a threat arises targeting a domain that people have staked their self-worth in (i.e. a domain in which their self-worth is highly contingent). Conversely a threat targeting a domain self-worth is less contingent upon, should not impact state level self-esteem. Participants were randomly assigned to conditions prior to completing any measures so those participants who ended up in the appearance threat condition were not guaranteed to have a high appearance contingency score; such was also true for the academic threat.

In context of this study, if those high in appearance contingency were more threatened than those low in appearance contingency in the appearance threat condition, the association between death anxiety and appearance contingency should have been positive, because a higher contingency implies a higher vulnerability to threat (Crocker & Wolfe, 2001; Kernis, 2003) and should result in greater death anxiety. The same would be true of academic contingency. However the association between both fear of death subscales and the contingency scores were not positive but negative. This result when paired with the ineffectiveness of the self-esteem threat conditions to impact death anxiety scores means that the hypothesis that those participants in a domain threat condition corresponding to a domain in which their self-worth is highly contingent would experience greater death anxiety could not be examined appropriately.

The negative associations between self-esteem and FDS-dying scores – lower self-esteem being associated with higher death anxiety – was an expected result that supports previous research regarding the role of self-esteem as a buffer to death anxiety in TMT (Abeyta et al., 2014; Greenberg et al., 1992; Routledge, 2012; Schmeichel et al., 2009; Wiseman et al., 2015).
The relationships between self-esteem and both appearance contingency and academic contingency were not predicted but are not contradictory to Contingent Self-Worth Theory. That theory was designed to assess the stability and potential vulnerabilities of one’s self-esteem rather than self-esteem levels overall (Crocker & Wolfe, 2001). Recall that highly contingent self-esteem can be fragile (Kernis, 2003) which may result in negative personal qualities in individuals either high or low in self-esteem (Crocker, Luhtanen et al., 2003; Kernis 2003). So while high levels of self-esteem are not dependent on high CSW scores, these strong associations between high contingency scores and high death anxiety scores are consistent with Contingent Self-Worth Theory.

The Link of CSW to TMT

There are some of potential explanations as to why the self-esteem threat manipulations did not work. Participants in this study were presented each measure immediately one after the other so little to no time passed between the threats occurring and the death anxiety scales being filled out. It is not only common practice to leave time between a self-esteem manipulation and a death anxiety measure (see Juhl & Routledge, 2016) but previous research suggests that leaving time between a threat manipulation and death anxiety makes that threat more effective (Abeyta et al., 2014). As such regarding the current study it is possible that the terror induced by the threat in the present study did not have sufficient time to effectively influence participants before they filled out the death anxiety scales.

Perhaps the most notable finding is the strong association between the different CSW domains. While high CSW can lead to a more fragile self-esteem, there has been debate about whether having high contingency in multiple domains may prove as beneficial in stabilizing self-esteem (Crocker & Wolfe, 2001). Crocker and Wolfe (2001) considered that some contingency
domains may lend to more secure self-esteem than others. Additionally while having multiple domains on which self-esteem is highly contingent could prove detrimental as one would have more areas in which threats would impact self-esteem, it is also possible that having multiple domains on which self-esteem is highly contingent helps to dissipate threats when those threats are focused on a single domain (Crocker & Wolfe, 2001)

In the present study, the domains threatened were physical appearance and academic competency; these domains were strongly related to each other and to all other CSW domains except for God’s love; God’s love was only related to virtue. It is possible that threatening a specific domain was ineffective because self-worth was equally contingent on five other domains, so the presented threat was not a significant enough blow to a participant’s self-esteem to result in an increase in death anxiety. While having multiple domains in which one’s self-esteem is highly contingent may prove as a vulnerability in more real world scenarios where multiple aspects of one’s self may be threatened at any time (Crocker & Wolfe, 2001), it may be protective against experimental manipulations such as those used in the present study.

Although participants were randomly assigned to conditions prior to completing any of the measures, participants in the appearance threat condition were found to have higher scores in the God’s love contingency domain. God’s love was the only contingency domain not associated with appearance, meaning that participants in the appearance threat condition were also some of the least vulnerable participants to an appearance threat. As a result, the appearance threat may not have produced an effect for death anxiety because the threat to one’s appearance simply was not a threat to self-esteem.
Sex Differences

Although sex differences were found in the current research, no such differences were found in the study upon which this current research was based (Routledge, 2012). Studies examining participant response to reminders of death typically have not noted sex differences (Abeyta et al., 2014; Greenberg et al., 1992; Routledge, 2012; Schmeichel et al., 2009; Wiseman et al., 2015;) or have found that the sex differences that do exist occur in power seeking behaviour but not fear and anxiety (Belmi & Pfeffer, 2016). Given that the sex difference between self-esteem levels was nearly statistically significant, it does follow from TMT that because males had lower self-esteem they had higher death anxiety scores.

However studies looking at self-esteem levels typically either do not find sex differences (Lakey et al., 2013; Park & Maner, 2009; Routledge, 2012) or use single sex samples (Bardone-Cone et al., 2017). The expected sex differences regarding CSW that female participant self-worth would be more highly contingent on academic competency (Crocker, Karpinski et al., 2003), appearance, approval of others and family support (Crocker, Luhtanen et al., 2003) were not found. As such, the unpredicted sex differences found in the current study are perplexing, and while results from the current sample may not be generalizable, future investigation of sex differences of self-esteem may shed light on if male self-esteem in general is dropping.

Limitations and Future Directions

The results from this particular study are only representative of university undergraduate students and the sex differences observed are based on an uneven ratio of male to female participants. A similar study conducted on the general public would need to be conducted to have more generalizable results.
The measures used in this study provided some limitations as well. The CSWS produces a continuous score, making it difficult to assess at what point a participant can be considered high or low in contingency within a specific domain. Perhaps by finding a way to make the CSWS categorical, it would serve the purpose of assessing whether a high or low contingency in a domain would have an effect on death anxiety when a threat is experienced. Alternatively one might choose to reconsider basing contingency score comparisons in terms of high versus low scores. Future studies may consider allowing for a break between the threat and the death anxiety scales through the use of filler tasks as this might allow for differences between threat conditions to occur. It may also be beneficial in future studies to use specific CSWS subscales of the relevant contingency domains rather than the entire CSWS.

While the current study did not produce results allowing for proper analysis of the proposed hypothesis, it does pose an interesting question about the potential protective nature of multiple contingency domains when presented with domain specific threats. As such, while strong ties have already been established between Terror Management Theory and other self-esteem theories, the link between Terror Management Theory and Contingent Self-Worth Theory may be more complex.
References


Appendix A

Ethics

The University of Regina Research Ethics Board has reviewed the above-named research project. The proposal was found to be acceptable on ethical grounds. The principal investigator has the responsibility for any other administrative or regulatory approvals that may pertain to this research project, and for ensuring that the authorized research is carried out according to the conditions outlined in the original protocol submitted for ethics review. This Certificate of Approval is valid for the above time period provided there is no change in experimental protocol, or related documents.

Any significant changes to your proposed method, procedures or related documents should be reported to the Chair for Research Ethics Board consideration in advance of its implementation.

ONGOING REVIEW REQUIREMENTS
In order to receive annual renewal, a status report must be submitted to the REB Chair for Board consideration within one month of the current expiry date each year the study remains open, and upon study completion. Please refer to the following website for the renewal and closure forms:
https://www.uregina.ca/research/for-faculty-staff/ethics-compliance/human/ethicsforms.html

Chris Street PhD
REB Chair
University of Regina
Appendix B

Consent

Project Title: Linking Contingent Self-Worth and Terror Management Theory.

Researcher(s): Maeghan Wild, Faculty of Arts Undergraduate Honours student, Department of Psychology, University of Regina, wild202m@uregina.ca

Supervisor: Dr. Don Sharpe, Professor, Faculty of Arts, Department of Psychology, 306-585-4312, sharped@uregina.ca

Purpose(s) and Objective(s) of the Research:
- The current study was designed with the intent of investigating the relationship between various aspects of self-worth (such as levels of self-esteem) and the level of anxiety individuals feel when responding to questions about the concept of their own death.
- Data collected in this study will be used in the researcher’s undergraduate honours thesis.
- Data collected from this study may also be used for academic presentations and journal publication.

Procedures:
- General non-identifying demographic information and questions about self-esteem, self-worth, personal experience and the amount of anxiety experienced when thinking about one’s own death will be presented through an online questionnaire.
- If at any point before completing the survey you wish to stop participation, exit the questionnaire window and your responses will not be recorded.
- The entire questionnaire should take approximately 20-30 minutes to complete.
- Please feel free to ask any questions regarding the procedures and goals of the study or your role by emailing the researcher at the address provided before you begin the survey.

Potential Risks:
- This study requires participants to answer personal questions involving their levels of self-esteem, and feelings of self-worth. Participants will also be asked to consider and respond to questions about the topic of their own death. Responding to such questions may be anxiety inducing or cause other mental or emotional distress.
- Strong emotional distress has the potential to increase physical arousal resulting in minor physical discomfort such as a brief period of increased heart rate and/or sweating.
Risk(s) will be addressed by:

- If at any point you experience distress, feel uncomfortable with continuing or wish to withdraw your participation for any other reason, you may do so by closing the survey window. If you choose to withdraw before completing the survey, your data will be deleted.
- If you experience distress as a result of participating in this study please consider using any of the resources below
  - If you fear that you are in immediate danger of harming yourself or someone else, call 911.
  - Saskatchewan crisis suicide help-line (306) 525-5333 or the mobile crisis suicide helpline (306) 757-0127 or the rural Saskatchewan help-line 1(800) 667-4442.
  - Crisis Services Canada 1(800) 456-4566.
  - University of Regina’s Counselling Services at (306) 585-4491, during regular business hours.
  - Regina Mental Health Clinic (306) 766-7800 (3rd Floor 2110 Hamilton Street Regina, SK S4P 2E3)
  - Please also consider visiting the Canadian Mental Health Association for more information about mental health https://cmha.ca/

Compensation:

- Participants through the University of Regina’s participant pool are able to earn an additional 1% to their final grade in a single 100 or 200 level psychology course of their choosing.
- If you have any questions about the participant pool, please contact participant.pool@uregina.ca or visit https://www.uregina.ca/arts/psychology/research-participants.html

Confidentiality:

- Personal information (name, email, phone number,) will not be collected and IP addresses will not be recorded. All survey responses will be anonymous.

Right to Withdraw:

- Your participation is voluntary and you may withdraw from the research project for any reason, at any time without explanation.
- Whether you choose to participate or not will have no effect on your position (e.g. class standing) or how you will be treated.
- Should you wish to withdraw for any reason before completing the survey simply exit the survey by closing the web browser window and your responses will be deleted.
- Please note that upon completion of the questionnaire, once your data has been submitted withdrawing it will no longer be possible as all responses are made anonymous and individual data will be un-identifiable.
Questions or Concerns and Follow up:

- To obtain the final results from the study, you may contact the Maeghan Wild or Dr. Donald Sharpe in the Department of Psychology, University of Regina, at 306-585-4157. (Please note that contacting the researcher(s) after participating may compromise your anonymity).

- This project has been approved on ethical grounds by the U of R Research Ethics Board on (insert date). Any questions regarding your rights as a participant may be addressed to the committee at (306-585-4775 or research.ethics@uregina.ca).

Consent:

By clicking the “I agree” option below you acknowledge that you have read and understood the description provided, and as such, you consent to participating in the research project.

* If you would like to keep a copy of this consent form, we recommend that you print this page.

  o I agree to participate

  o I do not agree to participate
Appendix C

Measure of Self Esteem

**Rosenberg’s Self-Esteem Scale (RSE)**

Please indicate the extent to which you agree with each of the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I feel that I am a person of worth, at least on an equal plane with others</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2. I feel that I have a number of good qualities</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>3. All in all, I am inclined to feel that I am a failure</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>4. I am able to do things as well as most other people</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>5. I feel I do not have much to be proud of</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>6. I take a positive attitude toward myself</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>7. On the whole I am satisfied with myself</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>8. I wish I could have more respect for myself</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>9. I certainly feel useless at times</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>10. At times I think I am no good at all</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>
Appendix D

*Measure of Contingencies of Self-Worth*

**Contingencies of Self-Worth Scale (CSWS)**

INSTRUCTIONS: Please respond to each of the following statements by indicating your answer using the scale from "1 = Strongly disagree" to "7 = Strongly agree." If you haven't experienced the situation described in a particular statement, please answer how you think you would feel if that situation occurred.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Disagree Somewhat</th>
<th>Neutral</th>
<th>Agree Somewhat</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>When I think I look attractive, I feel good about myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>2.</td>
<td>My self-worth is based on God’s love.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>3.</td>
<td>I feel worthwhile when I perform better than others on a task of skill.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>4.</td>
<td>My self-esteem is unrelated to how I feel about the way my body looks.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>5.</td>
<td>Doing something I know is wrong makes me lose my self-respect.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>6.</td>
<td>I don’t care if other people have a negative opinion about me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7.</td>
<td>Knowing that my family members love me makes me feel good about myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>8.</td>
<td>I feel worthwhile when I have God’s love.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>9.</td>
<td>I can’t respect myself if others don’t respect me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>10.</td>
<td>My self-worth is not influenced by the quality of my relationships with my family members.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>11.</td>
<td>Whenever I follow my moral principles, my</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>sense of self-respect gets a boost.</td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Disagree Somewhat</td>
<td>Neutral</td>
<td>Agree Somewhat</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>-------------------</td>
<td>---------</td>
<td>------------------</td>
<td>--------</td>
<td>----------------</td>
<td>-------</td>
<td>----------------</td>
</tr>
<tr>
<td>12. Knowing that I am better than others on a task raises my self-esteem.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>13. My opinion about myself isn’t tied to how well I do in school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>14. I couldn’t respect myself if I didn’t live up to a moral code.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>15. I don’t care what other people think of me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>16. When my family members are proud of me, my sense of self-worth increases</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>17. My self-esteem is influenced by how attractive I think my face or facial features are.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>18. My self-esteem would suffer if I didn’t have God’s love.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>19. Doing well in school gives me a sense of self-respect.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>20. Doing better than others gives me a sense of self-respect</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>21. My sense of self-worth suffers whenever I think I don’t look good</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>22. I feel better about myself when I know I’m doing well academically.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>23. What others think of me has no effect on what I think about myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>24. When I don’t feel loved by my family, my self-esteem goes down.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Disagree Somewhat</td>
<td>Neutral</td>
<td>Agree Somewhat</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
<tr>
<td>---</td>
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</tr>
<tr>
<td>25.</td>
<td>My self-worth is affected by how well I do when I am competing with others</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>26.</td>
<td>My self-esteem goes up when I feel that God loves me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>27.</td>
<td>My self-esteem is influenced by my academic performance.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>28.</td>
<td>My self-esteem would suffer if I did something unethical.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>29.</td>
<td>It is important to my self-respect that I have a family that cares about me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>30.</td>
<td>My self-esteem does not depend on whether or not I feel attractive.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>31.</td>
<td>When I think that I'm disobeying God, I feel bad about myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>32.</td>
<td>My self-worth is influenced by how well I do on competitive tasks.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>33.</td>
<td>I feel bad about myself whenever my academic performance is lacking.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>34.</td>
<td>My self-esteem depends on whether or not I follow my moral/ethical principles.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>35.</td>
<td>My self-esteem depends on the opinions others hold of me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
Appendix E

Appearance Threat

Appearance Threat Condition: Wording from Parks & Maner, 2009 p. 206

We all have parts of our body or physical appearance that we are dissatisfied with or feel insecure about. Please take a moment to think about the aspects of your body or physical appearance/body/face that you do not like about yourself and describe them in the space below.
Appendix F

Academic Threat

Academic Threat Condition: Wording Based on Buckingham, Weber, & Sypher, 2012; Parks & Maner, 2009

All students struggle with academics from time to time. Please take a moment to think about your most disappointing academic exam or assignment performances as a student and describe them in the space below.
Appendix G

Control Condition

Non Self-Threat Control Condition: Wording from Routledge, 2012, p. 666

*Describe the emotions that the thought of dental pain arouses in you.*
Appendix H

Measures of Death Anxiety (Death of Self and Dying of Self subscales)

The Revised Collett-Lester Fear of Death Scale (FDS)

How disturbed or made anxious are you by the following aspects of your own death? Read each item and answer it quickly. Don’t spend too much time thinking about your response. We want your first impression of how you think right now. Indicate the number that best represents your feeling.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Very</th>
<th>Somewhat</th>
<th>Not</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The total isolation of death</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>2. The shortness of life</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>3. Missing out on so much after you die</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>4. Dying young</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>5. How it will feel to be dead</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>6. Never thinking or experiencing anything again</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>7. The possibility of pain and punishment during life-after-death</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>8. The disintegration of your body after you die</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>

How disturbed or made anxious are you by the following aspects of your own dying? Read each item and answer it quickly. Don’t spend too much time thinking about your response. We want your first impression of how you think right now. Indicate the number that best represents your feeling.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Very</th>
<th>Somewhat</th>
<th>Not</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The physical degeneration involved in a slow death</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>2. The pain involved in dying</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>3. The intellectual degeneration of old age</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>4. That your abilities will be limited as you lay dying</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>5. The uncertainty as to how bravely you will face the process of dying</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>6. Your lack of control over the process of dying</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>
7. The possibility of dying in a hospital away from friends and family
8. The grief of others as you lay dying
Appendix I

Debriefing

Thank you for completing this study. The purpose of this research study was to observe the impact that lowering self-esteem, in a particular domain of self-worth would have on the level of anxiety experienced when responding to questions about death. To measure a base level of self-esteem you filled out the Rosenberg Self-Esteem Scale (RSE). In order to determine which domains you base your self-esteem in, you were asked to fill out the Contingencies of Self-Worth Scale (CSWS). After these scales were completed, you were randomly assigned to one of three conditions. Two threat conditions and one control condition – all presented as open ended questions – were provided to manipulate participant feelings of self-esteem. Those assigned to the appearance threat were asked to recall and describe a time they felt unattractive. Those in the academic threat were asked to recall and describe a time they did poorly in school. Those in the control condition were asked to recall and explain an unpleasant experience of dental pain. Following the self-esteem manipulation, all participants filled out the Collette-Lester Fear of Death Scale, specifically the Death of Self and Dying of Self subscales. No studies have used this particular theory of self-esteem to assess the impact of self-esteem levels on death anxiety. As such, this study seeks to fill this gap in the literature.

If you have any questions about the outcomes of this study or the research, please feel free to contact me (Maeghan Wild) at wild202m@uregina.ca or leave a message in the Psychology Department at the University of Regina for Maeghan Wild or Dr. Donald Sharpe (306-585-4157 or 306-585-4221).

If you have experienced distress as a result of participating in this study please consider using any of the appropriate resources below.

- If you fear that you are in immediate danger of harming yourself or someone else, call 911.
- Saskatchewan crisis suicide help-line (306) 525-5333 or the mobile crisis suicide helpline (306) 757-0127 or the rural Saskatchewan help-line 1(800) 667-4442.
- Crisis Services Canada 1(800) 456-4566.
- University of Regina’s counselling services at (306) 585-4491, during regular business hours.
- Regina Mental Health Clinic (306) 766-7800 (3rd Floor 2110 Hamilton Street Regina, SK S4P 2E3)
- Please also consider visiting the Canadian Mental Health Association for more information about mental health https://cmha.ca/

Thank you for your participation.