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From mortality to connectedness: an
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Florida Atlantic University,

FROM MORTALITY TO CONNECTEDNESS: AN EXPERIMENTAL STUDY OF
AFFILIATION, PUNITIVENESS, AND MOOD

by

Garreth Rosenzweig

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This thesis was prepared under the direction of the candidate's thesis advisor, Dr. Kevin Lanning, and has been approved by the members of her/his supervisory committee. It was submitted to the faculty of The Honors College and was accepted in partial fulfillment of the requirements for the degree of Bachelor of Arts in Liberal Arts and Sciences.

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ABSTRACT

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Terror Management Theory posits that induced death-related cognitions lead to anxiety. To relieve anxiety, individuals may bolster their self-esteem or current cultural worldviews. The current study hypothesizes that induced thoughts of social connectedness will be an anxiety-buffering mechanism that will reduce the need to defend one's worldview. Participants watched one of two films which were intended to either induce social connectedness or have no effect on the individual. Each participant watched a short film clip then completed measures pertaining to moral transgressions, affiliative and agentic extraversion, self-esteem, and positive and negative affect. Females who were high on affiliation were found to defend their worldviews more often than males high on affiliation following the social connectedness induction. The experimental (42-Up) condition showed lower levels of punitiveness than the control (K-Web) condition.

To Mom

Table of Contents

Introduction.....	1
Terror Management Theory.....	1
Cultural Worldview Defense.....	2
Self- Esteem.....	6
Positive and Negative Affect.....	8
Extraversion.....	8
Study Overview.....	11
Methods.....	14
Participants.....	14
Procedure.....	15
Results.....	18
Personality characteristics by film condition and gender.....	18
Moral Transgressions Scale.....	20
Affiliation and Agency.....	21
Affiliation and Agency as moderating variables.....	23
Affiliation, Agency, and Mood.....	24
Discussion.....	25
Affiliation, Agency, and Gender.....	27
Issues that may have attenuated results.....	30
Limitations of the Study.....	31
Future Research.....	32

List of Tables, Figures, and Appendices

Tables	37
Table 1: Distribution of Gender within Film Condition.....	37
Table 2: Descriptive Statistics by Gender and Film Condition.....	38
Table 3: Punitiveness by category.....	39
Table 4: Regression analysis: Affiliation Predicted from Film and Gender.....	40
Table 5: Effect of Gender and Film on Punitiveness.....	41
Table 6: Average Punitiveness for each MSTS item (ordered by punitiveness).....	42
Figures	44
Figure 1a: Effect of affiliation on punitiveness by film condition.....	44
Figure 1b: Effect of agency on punitiveness by film condition.....	44
Figure 2a: Effect of affiliation on punitiveness by gender.....	45
Figure 2b: Effect of agency on punitiveness by gender.....	45
Figure 3a: Effect of well-being on punitiveness by film condition.....	46
Figure 3b: Effect of well-being on punitiveness by gender.....	46
Figure captions.....	47
Appendix	48
Appendix A: Demographics.....	48
Appendix B: MPQ.....	49
Appendix C: MSTS.....	50
Appendix D: PANAS-X.....	55
Appendix E: Debriefing.....	57

From Mortality to Connectedness: An Experimental Study of Affiliation,
Punitiveness, and Mood

Terror Management Theory (TMT) posits that ideation involving death leads to anxiety, and multiple mechanisms are used to defend against this anxiety.

According to original TMT, there are two possible ways to defend against the idea of death. The threatened individual must either bolster his/her self-esteem or defend their cultural values and ideals. A worldview is a belief system which people utilize to make decisions about the exterior world. A worldview is formulated by considering cultural context; to be of value to the culture, one must follow the cultural values. This belief system is used to make those induced with mortality salience feel like they are living for a reason, that they are not meaningless forms of carbon matter. The theory claims that when an individual has become aware of his/her mortality, he/she would be more likely to defend his/her cultural worldview so that a part of him/her can be carried on into further generations. The negative response towards a moral transgressor by someone that is considering their imminent death is because the transgressor's defiance is a threat to their cultural worldview. The transgressor is threatening the participant's values at a time when he/she feels vulnerable to death. In response to the transgressor, the participant will defend the cultural worldview so that if they were to die, their shared values with the culture will give him/her a sense of symbolic immortality (Mikulincer, Florian, & Hirschberger, 2003). The threatened participant will then decide to be excessively punitive towards anyone or anything that contradicts the cultural worldview (Rosenblatt, Greenberg, Solomon, Pyszczynski, et al., 1989). TMT also posits that self-esteem enhancement is an anxiety-buffer against the emotions that are induced due to the awareness of death.

“Although the terror may on occasion rise to consciousness in muted form, most of the anxiety people experience results from threats to either the worldview or self-esteem components of the cultural anxiety-buffer that protects them from the underlying existential terror” (Rosenblatt et al., 1989). Similarly, Mikulincer and Florian (2002) found that inducing thoughts about death in a participant lead to an increased amount of self-serving attributions due to negative and positive events. Individuals are more likely to think of themselves in a positive manner due to a mortality salience in an attempt to bolster their self-esteem and therefore fight off anxiety.

In addition to self-esteem enhancement and cultural worldview defense, being in a close relationship has been considered an additional anxiety-buffering construct. Mikulincer et al. (2003) claims that close relationships are a third mechanism that can be used in defense against mortality salience. Mikulincer et al. (2003) argues that there are two separate components that close relationships utilize to lower the effect of death-related thoughts on the psyche (lessening of anxiety). The first component classifies close relationships as a form of symbolic immortality, in which the partner can continue on into the future for the individual, defying death. The second component is a more global component of anxiety reduction in which there is an increase in emotional relief and connectedness with others.

Cultural Worldview Defense

To prevent the anxiety involved with thoughts about eventual death, a defense against individuals that threaten the ideals of the culture is formulated. TMT research typically begins with a mortality salience induction and is then followed with an

assessment of the individual's worldview defense and self-esteem (Rosenblatt et al., 1989). In Rosenblatt et al. (1989), worldview defense was assessed by the amount of punishment given to someone that blatantly goes against the participant's worldview, in this case a prostitute. The authors find that when the participants are aware of death, they will give higher bonds to moral transgressors that go against the cultural worldview. If an individual, when thinking about death, is harsher towards items contradictory to the worldview, one may believe that an induction of connectedness, similar to Mikulincer et al. (2003)'s close relationship hypothesis, may be an anxiety-buffer and reduce the need to have to defend the cultural worldview. A similar method of measuring worldview defense, the hero scenario, was used in a follow up study in which the higher amount of reward given to someone that followed closely with that individual's worldview was considered worldview defense. If the participant, after being made aware of his/her death, is asked to reward someone that follows the cultural worldview (e.g. saving a baby), they would give that hero that follows the worldview a higher reward. The difficulty with the prostitute and hero scenario measure of worldview defense is that, even though it is expected for a prostitute to go against the cultural worldview, it may not always be the case. Though many people have similar worldviews, as is found in the case of the prostitute, there may be some scenarios that could be a part of participant A's ideation of the cultural worldview and not be a part of participant B's .

Coming out of the original prostitute scenario, multiple alternative methods have been used to assess worldview defense. The only commonality amongst all the

methods was that an individual must be inline with what they believe to be the cultural worldview.

In Hart, Shaver, and Goldenberg (2005) and Wisman and Goldenberg (2005), worldview defense was measured with pro and anti nationalistic ideology. Essays, either pro-nationalistic or anti-nationalistic, were administered to participants that were told the essays were written by foreigners. The essays and the authors of the essays were then rated on multiple questions using a 9-point Likert-scale. Individuals that rated pro-nationalistic higher and anti-nationalistic lower were considered to be defending their worldview. This measure, somewhat like the prostitute scenario, implies that all individuals within the nation have pro-nationalistic values, and that they must remain consistent with the values of the majority. This viewpoint is problematic, because a person living within a nation does not necessarily believe that anti-nationalistic information is always incorrect or pro-nationalistic information is always correct. For some individuals nationalistic ideology might be more salient within their worldview than it is for others.

Similarly, Gailliot, Schmeichel, Baumeister (2006) measured worldview defense through ratings of a “pro-Bush” statement about the war on terror. The individuals were questioned about their political view point, conservative or liberal, and later were asked to rate the statement. Those individuals that were conservative and rated the “pro-Bush” statement higher were considered to be defending their worldview, whereas as liberals that rated the “pro-Bush” statement lower were defending their worldview. This is a case where individual worldviews differed, and to measure whether the participants were defending their worldview, the researcher

had to assess what their current cultural values were by questioning their political alignment. Though the researchers realized the importance of differing worldviews, they did not take into account the possibility that participants may not have strong political values.

Jonas and Fischer (2006) used a measure of consistency to evaluate worldview defense. Cognitive consistency was measured by considering how much the participant's current preference conflicted with pre-existing beliefs. Cognitive inconsistency should be seen as aversive because it undermines the stability of the person's worldview. Cognitive consistency should increase after a mortality salience induction. The participants were asked a series of questions concerning their beliefs followed by the presentation of articles that either promoted or denounced their prior beliefs. Higher ratings for the confirming article and lower ratings for the article against their prior beliefs showed a worldview defense measure.

Florian, Mikulincer, Hirschberger (2002) used a shortened version of the Multidimensional Social Transgressions Scale (MSTS; Florian & Mikulincer, 1997). The MSTS was found to be reliable and valid (Florian & Mikulincer, 1997). The MSTS is a series of short vignettes that each describes an individual that commits a transgression that would normally be against people's worldview. The participants were given 10 vignettes from the MSTS and were asked to evaluate the severity of the transgression and the severity of the punishment that should be administered to a transgression on a 7-point scale ranging from very light punishment/not at all severe (1) to very heavy punishment/very severe (7). They averaged the score into one score which they labeled the severity of the evaluation. Higher scores were said to be a

more severe evaluation of the transgression and the transgressor. They used this to show that relationship commitment was a mechanism that reduced the need to defend their worldview. According to Florian et al. (2002) an individual's worldview is the believed severity of the transgression and the perceived level of necessary punishment for the transgressor in the vignettes.

Self-Esteem

The second anxiety buffering construct found in the original research on TMT is self-esteem. The most commonly used method for measuring self-esteem is the Rosenberg Self-Esteem Scale. Self-esteem does not imply feelings of superiority or perfection, but rather feelings of self-acceptance, self-respect, and generally positive self-evaluation (Rosenberg, 1989). Research on TMT found that self-esteem is an anxiety-buffering mechanism used to protect an individual from detrimental psychological and emotional effects linked with mortality salience. As an individual becomes aware about his/her death, he/she should have an increase in self-esteem.

Mikulincer et al. (2002) measured how a mortality salience induction affected self-serving attribution following negative events. They found that individuals, when asked to rate the cause of the negative events, were less likely to attribute them to internal, stable, and global causes. The self-serving attributions might be indicative of a change in self-esteem by attributing any negativity to external causes and boosting internal (self-esteem) measures. If the data indicates that causation is not due to internal, stable, or global effects, then it must be due to external, uncontrollable, and limited effects which lead to a positive self-evaluation.

Harmon-Jones, Simon, Greenberg, Pyszczynski, Solomon, and McGregor (1997) hypothesized that an increase in self-esteem, the predicted anxiety buffer, would decrease the need for people who were told to think about death to defend their cultural worldview. Participants who were given positive feedback regarding their personality were less likely to demonstrate worldview defense. Self-esteem decreased the experienced anxiety due to thoughts of death and therefore the participants did not need to further confirm their cultural worldview.

Harmon-Jones et al. (1997) in a follow-up study also found that after an induced increase in self-esteem, through positive feedback on a personality test, there was a reduced accessibility to death-related thoughts. The level of death related thinking was measured by a word fragment completion task, which was administered following the increased self-esteem and mortality inductions. When self-esteem was increased, there was a reduced effect from the mortality salience. In a similar manner, Greenberg, Arndt, Simon, Pyszczynski, and Solomon (2000) found that the actual assessment of worldview defense lead to a reduction in death related thoughts. Participants lowered their level of anxiety by completing the worldview defense measure and were less likely to need to reduce their anxiety through other methods such as self-esteem enhancement. After a mortality salience induction and worldview defense evaluation, participants were given a similar word fragment task. The data revealed a decrease in death related thoughts, presumably due to the anxiety relieving effects of worldview defense.

Affectivity

TMT posits that general affect is not directly affected by mortality salience. Rosenblatt et al. (1989) found that affect did not change in response to a mortality salience induction. Scores on a mood checklist for the mortality salience group did not differ significantly from that of the control group. In a follow-up study, Rosenblatt et al. (1989) found that experimental participants did not rate the research or the researcher of the study any lower than the control group. This data claims that a mortality salience induction does not lead to a simple change in negative or positive emotionality.

Mikulincer et al. (2002) alternatively found that along with an increase in self-serving attribution, there was also an increase in positive emotionality following a mortality salience induction. This increase in positive emotionality, along with the previously mentioned self-serving attribution, could be considered as an alternative method from worldview defense and self-esteem enhancement to buffer against the anxiety of death-related ideation. A possible explanation for why emotion was not changed following mortality salience in Rosenblatt et al. (1989) is that cultural worldview defense buffered against the anxiety and therefore there wasn't a need to alter emotionality.

Extraversion

Extraversion, in many personality inventories and within the five-factor model, is defined and assessed as a unitary factor. According to the work of Tellegen et al. (in press) and the work on the Multidimensional Personality Questionnaire (MPQ), extraversion may have two separate components.

Morrone, Depue, Scherer, and White (2000) establishes that extraversion is made up of agentic and affiliative components, which they consider two dispositions or emotional-motivational systems. “Agency reflects social dominance and the enjoyment of leadership roles, assertiveness, exhibitionism, and a subjective sense of potency in accomplishing goals; whereas affiliation reflects enjoying and valuing close interpersonal bonds, and being warm and affectionate” (Morrone et al., 2000). Agency encompasses qualities such as dominance, ambition, mastery, and efficacy, which are involved in many achievement-related and interpersonal situations. Affiliation is strictly interpersonal and promotes affiliative rewards and *bonding*.

The assessment of agentic and affiliative extraversion was taken from the Multidimensional Personality Questionnaire (MPQ) which was developed by Tellegen et al. (in press). The MPQ is broken down into an assessment of multiple dimensions of personality. Agency is measured by the two dimensions of social potency and achievement and affiliation is measured with the dimension of social closeness. The additional component of well-being is used in both agency and affiliation. The MPQ is a self report measure which has a high alpha coefficient (median = 0.85) and a strong retest reliability (median=0.89).

Morrone et al. (2000) and Morrone-Strupinsky and Depue (2004) sets out to create a tool, in this case a film, to induce emotions that will intensify the type of extraversion to which the emotion is linked. If the authors wanted to reinforce agentic extraversion, they would show the participants of the study a film clip that caused emotions that were indicative of incentive motivation- positive activation and if they

wanted to reinforce affiliation they would make warmth-affection salient within the film.

Static and motion (film) pictures have become a standard method in inducing mood states in participants. Though there was already a static picture induction of affiliation and agency, Morrone et al. (2000, 2004) said that static pictures are not as stimulating as films and decided to develop a set of films that induces incentive motivation-positive activation (Morrone et al., 2000) and warmth-affection (Morrone-Strupinsky et al., 2004). There were films in the past that attempted to alter the moods of participants, but many of them altered the pleasantness/ unpleasantness of the participant instead of the emotions linked with each type of extraversion. The goal of this series of film was not to change the general positive affect of the individuals, but instead to change the activation of those emotions. “Most studies using static pictures or moving films have similarly induced a general state of pleasantness, amusement, or happiness by use of humorous content, which would seem less adequate for specifically investigating the incentive motivation-positive activation and/or warmth-affection nature of extraversion” (Morrone-Strupinsky et al., 2004).

Both agency and affiliation are linked closely to positive affect and positive affect makes up a large portion of the relationship between agency and affiliation. Positive affect has been claimed as the “unifying glue” that holds affiliative and agentic extraversion together (Morrone et al., 2000). When the amount of the relationship between agency and affiliation due to positive affect is removed, the link between the two is largely lost. If there is a limited difference in the amount of positive affect between agency and affiliation, then there must be some outside factor

that is influencing them to be different from one another. It is the activational or motivational factor that distinguishes agency from affiliation (Morrone et al., 2000). “These findings suggest that the neurobehavioral processes associated with affiliation and agency both generate a general, nonspecific state of pleasant emotional feelings, perhaps because both traits involve processes associated with reward” (Morrone-Strupinsky et al., 2004).

Study Overview

Mikulincer et al. (2002) states that in addition to the previous constructs of worldview defense and self-esteem, close relationships can be an important buffer against mortality salience. Individuals that are threatened by death are more likely to make an attempt at a close relationship, whereas those that lack a close relationship are more threatened by the possibility of their own death. Mikulincer et al. (2002) argues that close relationships are a separate and important alternative mechanism that is used to protect individuals when they might be threatened by death. A partner in a close relationship is a form of symbolic immortality as mentioned previously.

In the current research, a factor that we hypothesize to have an alternative anxiety buffering effect on worldview defense will be inspected. The construct of Social Connectedness, can be linked closely to Mikulincer et al. (2003) and the effect of close relationships as an anxiety-buffer. Close relationships could be considered a symmetrical relationship in that both individuals in the relationship put as much into the relationship as the other. Social Connectedness alternatively can be described as the ownership of a person rather than a dyad, a potentially asymmetrical relationship, where one individual is gaining support and guidance, but the other is not involved.

For example, individuals, when watching their favorite TV shows, become attached to certain characters that are either similar to them in some way or are indicative of something they want (e.g. attractiveness, money, love). Social connectedness, the feeling of being similar or close to another individual, would make the participants have a similar feeling of symbolic immortality, and therefore act as an alternative anxiety buffer and remove a need to protect their worldviews. It could be much easier to connect with these individuals because they can easily become attached to them without the need for mutual affection found in a close relationship. Close relationships could be detrimental as an anxiety buffer, because there is a high risk to lose the person with whom one has a close interpersonal bond. Social connectedness through film, literature, and television may be an alternative bolstering construct, which has a limited chance for loss. If a close, romantic relationship can buffer against the anxiety of death-related thoughts, an asymmetrical relationship, based on connectedness, could have the same effect. This anxiety-buffering effect would be similar to the second global component posited by Mikulincer et al. (2003). There could be a reduction in anxiety due to an increase in emotional relief and a feeling of connectedness with others.

The current research will utilize film to give the participants a feeling of closeness to another individual. “We observed that close, nonsexual interaction between romantic partners or between parents and children is an immediately understood context that induces strong feelings of warmth and affection” (Morrone-Strupinsky et al., 2004). Michael Apted’s Up-Series is a collection of films which have followed the lives of fourteen children from England. The films have been made

every 7 years since 1963. After watching the Up-series all the way through (a total of 13 hours of film), a strong bond was formed between the individuals interviewed in the films and the students (including myself) in the 2005 psychometrics class at Harriett L. Wilkes Honors College. This bond was different than the bond formed between close friends; it was not a mutual bond, but rather an asymmetrical relationship or connection to the individuals in the film by those who were watching it. We will use a video clip of one individual from the Up-Series, which shows the man in the film being interviewed multiple times from the age of 7 until age 42. The participant watching the film will see Bruce, a male living and growing up in England. The experiences of Bruce are expected to be experienced by many and therefore indicate a similarity between the viewer and Bruce. For a more complete description of what the film clip contained see the methods section.

There are three main hypotheses that direct the current study. The primary hypothesis states that affiliation will moderate the relationship between the film condition and worldview defense. Affiliation will effect how “connected” the individuals will feel in the experimental condition and therefore moderate the punitiveness of the participants. Individuals that are higher in affiliation would have a greater likelihood of feeling connected from the experimental film, because high levels of affiliation are linked with intimacy and connectivity with others, and therefore this relationship would more closely mimic a close relationship. The second hypothesis states that the level of agency of an individual will not have the same moderating effect as affiliation. Individuals should not be affected by the film condition in an alternative way dependent on level of agency. The final hypothesis is

that the punitiveness will be directly dependent on film condition. The Social Connectedness induction is not a simple change in general affect, but instead, similar to the findings in the initial terror management research, it is an anxiety reducing construct that decreases the need to utilize alternative anxiety buffering mechanisms such as cultural worldview defense.

Methods

Participants

The sample for this study consists of a group of undergraduate college students from the Harriett L. Wilkes Honors College of Florida Atlantic University, along with a group of older adults from the Lifelong Learning Society (LLS) program at the same university. Florida Atlantic University undergraduate students received course credit in a General Psychology class for participation. Reimbursement in the form of feedback on personality measures was given for the older adults. Twelve older adults and forty-eight undergraduate students were placed into one of four different conditions, as described below. The four conditions included: individual experimental (42-up video clip), individual control (James Burke “K-Web” video), group experimental (42-up), and group control (James Burke “K-Web” video) (Carter, 2007). Further analysis in the current thesis took into account only the experimental and control conditions with disregard to whether the video was watched in a group or individual setting. Participants were randomly placed into either the control condition or the experimental condition regardless of gender or age. The experimental condition consisted of 31 participants; the control condition consisted of 29 participants.

Procedure

The participants were given a demographic questionnaire and the extraversion scale prior to watching the film. After the film the participants then completed the measure of worldview defense, the mood scale (PANAS), and the self-esteem scale (Rosenberg Self-Esteem Scale).

Demographics

After the consent form was completed, participants were asked to answer a series of five demographic or personal questions. The questions included questions on age, education, sex, ethnicity, and an additional question regarding the previous viewing of the experimental film (42-up) (Appendix A).

Extraversion

Before the viewing of the film clip, dependent on the condition, participants filled out a subsection of the Multidimensional Personality Questionnaire (MPQ). Participants completed 4 subsections of the MPQ (achievement, social closeness, social potency, and well-being) (Appendix B). These four subsections of the MPQ make up the two extraversion scales, affiliative and agentic extraversion. Individuals that scored higher on the affiliative extraversion scales were hypothesized to be more likely to be affected by the experimental video clip and therefore show larger effects on worldview defense. The extraversion scale was given before the video so that the film did not affect the scores on affiliative and agentic extraversion.

Films

The participants watched either an excerpt from the James Burke “K-Web” video or from the “Up-series”. “K-Web” is a short educational clip which explains a

new computer program that connects many individuals, ideas, and inventions throughout history. The “K-Web” video was chosen to be emotionally neutral and to not evoke feelings of social connectedness. The experimental group watched an excerpt about Bruce from Michael Apter’s 42-up. In this video clip, Bruce is shown throughout his life from age 7 until age 42. At age 7, Bruce is shown as a very quiet and shy boy at a boarding school in England who lives very far away from his father and dreams to one day become a missionary and help the “poor people”. At age 14, Bruce is still very shy and quiet and does not have a girlfriend. At age 21, Bruce is attending college for mathematics, he still is very shy, and he continues to not have a girlfriend. At age 28, Bruce is a school teacher in the East End of London, low class section, and continues to live alone without a close relationship. At age 35, Bruce moves to Bangladesh to continue teaching and it makes the viewer think about his dreams to become a missionary at age 7. The end of the film clip show Bruce at age 42 finally finding someone that he has fallen in love with and he is getting married. It was anticipated that the 42-up clip would evoke a connection between the viewer and Bruce, whereas no such connection would be salient in the control video.

Moral Transgressions

In most studies which consider the construct of mortality salience, researchers use some measure of worldview defense. In the current study, an edited version of the Moral and Social Transgressions Survey (MSTS), with an additional 10 items, was used as the measure of worldview defense. The twenty items given to the participants were split into 10 items that were unambiguous (i.e. Tom L. was driving his car and severely injured a single mother in a hit-and-run accident. As a result, she and her

daughter were separated due to a year-long hospitalization) in nature and 10 items that were ambiguous, (i.e. Jane B., a single mother who must work late hours to be able to support her children, hires a nanny to watch her children while she is working. Many nights she is unable to be home before her children are put to bed). Though, in the original MSTS, the authors assessed both severity of punishment for the transgressor and severity of the transgression, they found that the difference between the scores was not significant. The version used in the current study only assessed the level of punishment for the transgressor. The between item correlation was very high from previous administration of the test, $r(58) = .61, p < .01$, and the additional question seemed unwarranted. The participant is asked to rate the amount of punishment required for the person committing the offense using a 7 point scale (*1- No punishment at all to 7- Strongest punishment possible*). Individuals who have a higher average punishment score are considered to be defending their worldview. The scale differed from previous studies in that the description at each Likert level was closer to an actual punishment given to an individual that committed the transgressions, (i.e. a reprimand or a warning from authority, probation or community service, a short sentence in county jail). In previous administration of the MSTS, the scale followed a generic progression from least severe to most severe transgression. By making the participants think of an actual punishment for the transgressor, it will make them accept the reality of each situation. In addition to including a scale with realistic punishments, each vignette was edited to include a name of the transgressor. By including the name of the transgressor, the reader would be expected to become more involved with each vignette. Rosenblatt et al. (1989) stated that individuals,

instead of questioning the validity of the moral principle, would innately decide that the transgressor was evil and that they must be punished.

Positive and Negative Affect

The Positive Affect Negative Affect Schedule (PANAS) will be used in the current research to assess the mood state of the participant at the time of testing. The 60-item version of the PANAS (PANAS-X) was used as a measure of affect change following either the control or the experimental video clip. The PANAS-X is a mood scale that is expected to measure affect of the participant at that present moment, therefore it could be expected that results from the PANAS-X are effects due to the video clip. Kercher (1992) states that the PANAS is a reliable and valid measure of positive and negative affect for both younger and older adults.

Self-Esteem

The Rosenberg Self-esteem Scale is an often used and highly reliable measure of self-esteem. The measure is a short 10-item version that assesses the participant's general feelings about themselves (see Carter, 2007).

Big Five Factors of Personality

Following the completion of the paper and pencil portion of the study, interested participants were offered a link to an online version of an assessment of the Big Five factors of personality.

Results

An analysis of the distribution of males and females along the film clip condition showed that nearly 68% of participants were female and that there was an approximately 5:1 ratio of females to males in the control condition (K-Web).

Though there was an equivalent amount of people between the control and experimental conditions (see Table 1), there was a significantly greater proportion of males in the experimental condition ($\chi^2(1, N = 60) = 8.07, p = .005$).

At the onset of data analysis all variables of importance were standardized (transformed into z-scores) to offset the few missing points in the data set. The standardization of the scores allowed us to use participants that did not complete all the questions on the MPQ or the MSTs. All means and standard deviations will be given in standardized form.

There were no significant differences, by gender, in the means of affiliation, agency, and well-being. Each of these measures was administered prior to the film manipulation. Though not significant, females were higher in affiliation, punitiveness, and wellbeing, and males had higher agency (see Table 2). The differences between genders in affiliation and agency varied across the film condition. In the experimental (42-up) condition, affiliation was higher among males ($\underline{M}_{\text{males}} = 0.18, \underline{M}_{\text{females}} = -0.10$), whereas there were an increased number of females with high affiliation in the control (K-Web) condition ($\underline{M}_{\text{males}} = -0.66, \underline{M}_{\text{females}} = 0.10$). A two-way ANOVA was conducted examining the effect of gender and film condition on levels of affiliation. The analysis showed an F-statistic approaching significance for the gender by film condition interaction ($F(1, 57) = 2.90, p = .09$). Similar in the case of agency, males were more likely to be agentic in the experimental condition ($\underline{M}_{\text{males}} = -0.01, \underline{M}_{\text{females}} = -0.32$), whereas females were more likely to be closer to males in agency in the control condition ($\underline{M}_{\text{males}} = 0.31, \underline{M}_{\text{females}} = 0.16$) than they were in the experimental group. Another two-way ANOVA was conducted assessing the effect of gender and

film condition on agency. The analysis showed an F-statistic approaching significance for the film condition ($F(1, 57) = 3.14, p = .08$). Well-being did not seem to vary across conditions, with females having higher levels of well-being in both the control ($M_{\text{males}} = 0.05, M_{\text{females}} = 0.07$) and experimental ($M_{\text{males}} = 0.03, M_{\text{females}} = 0.14$) conditions.

Moral Transgressions Scale

Punitiveness appeared unrelated to film clip ($r = 0.08, p = ns$); the slight positive correlation was in the direction that those who watched the experimental film were slightly more punitive. To assess whether the results were a function of our measure of punitiveness (MSTS), an item analysis was conducted to see which items on the measure varied significantly from the others. Two items were removed (items 3 and 20) as invalid components of the MSTS, varying at a lesser degree than the rest of the measure and also showing limited variability in response. On a five point (1-5) scale, the means for the two items were $M_3 = 1.03$ and $M_{20} = 1.08$. The item analysis deemed items 3 and 20 as unrepresentative of the rest of the measure (see Table 6).

Empirical and rational analyses of the remaining 18 items were undertaken, including a factor analysis to assess if the MSTS was measuring more than one thing. Scores computed from loadings on the first unrotated factor of the analysis will be used for the remainder of the analysis using punitiveness (eigenvalue = 4.382). The first factor accounted for approximately 24% of the total variance with item numbers 2,6,10, and 19 being most related to this factor (see Table 6).

Interestingly, there is a limited order effect, where participants were more punitive on items closer to the beginning of the measure ($M = 3.36$) and less punitive

on items nearing the end of the measure ($\underline{M} = 3.14$). Through a split-half analysis of the reliability, there was a lower than anticipated correlation between the first and second half of the MSTS ($r = .314, p = .05$).

By completing a content analysis of the remaining 18 MSTS items, we tried to understand what characteristics within each item led to higher punitiveness. Items were split up into three categories including: 1) gender of the victim, 2) effect of the transgression on the victim, and 3) whether or not the transgression was intentional (Appendix 1a). The antagonists in the short vignettes were all males, but the victims were male (5 items, $\underline{M} = 3.63$), female (4 items, $\underline{M} = 3.95$), or multiple victims (9 items, $\underline{M} = 3.22$). The victim outcomes were categorized as psychological disturbance (3 items, $\underline{M} = 4.54$), physical disturbance (9 items, $\underline{M} = 3.66$), or other (including a combination of both physical and psychological, or something that could not be categorized) (6 items, $\underline{M} = 2.74$). The final category split the vignettes by the intent of the transgressor, which meant that the transgressor either intentionally harmed the victim (12 items, $\underline{M} = 3.29$) or accidentally harmed the victim (6 items, $\underline{M} = 4.02$). Mean punitiveness on items within each category is listed in Table 3. Punitiveness was highest in vignettes in which there was a female victim ($\underline{M} = 3.95$), the transgression was accidental ($\underline{M} = 4.02$), and it affected the victim psychologically ($\underline{M} = 4.54$).

Affiliation and Agency

There was a large positive correlation between the agentic and affiliative extraversion scales ($r = .74, p = 0.01$). The agency scale (10 items from the Achievement scale, 10 items from the Social Potency scale, and 10 items from the

Well-being scale) and affiliation scale (10 items from the Social Competency scale and 10 items from the Well-being scale), prior to extended analyses both included the well-being scale. It was anticipated that the large correlation between agency and affiliation was due to the 10 items that they each shared from the well-being scale. During analysis, the well-being scale was removed from both agency and affiliation and then further considered as its own construct. With well-being removed from agency and affiliation, the correlation between the agency and affiliation scales was no longer significant ($r = -0.05$, $p = ns$). All further analyses of the agency and affiliation constructs were completed without well-being. The correlations of agency and affiliation with punitiveness ($r_{\text{agen}^* \text{pun}} = 0.02$, $r_{\text{affil}^* \text{pun}} = 0.02$, $p = ns$) were similar to the correlations found when well-being was removed from agency and affiliation ($r_{\text{agen}^* \text{pun}} = -0.04$, $r_{\text{affil}^* \text{pun}} = -0.01$, $p = ns$).

Individuals who were higher in affiliation were only slightly more likely to be in the experimental group ($M_{\text{experimental}} = .03$, $M_{\text{control}} = -0.03$), whereas those that were higher in agency were found more often in the control group ($M_{\text{experimental}} = -0.18$, $M_{\text{control}} = 0.19$). These effects show that there were very limited differences in individuals along the extraversion constructs in each film condition. These data did not answer the question of whether or not level of affiliation affected each film condition differently. Since the MPQ was administered prior to the film condition, all these data say is that participants were slightly more likely to be placed in certain conditions (the participants along affiliation and agency were randomized).

Affiliation and Agency as moderating variables

A series of Moderated Multiple Regression analyses (MMR) were undertaken. For each personality variable, a regression equation is formulated to predict punitiveness from the personality scale, film condition, and the personality scale by film condition interaction. This was done for each of the three personality scales, including affiliation, agency, and well-being. These analyses were repeated in a second series of regression equations using gender in place of film condition.

Moderated Multiple Regression can be used to explain what constructs lead people to be either high or low on punitiveness. For example, when affiliation is put into the equation along with film condition, we can see what levels of affiliation and which film condition leads to each predicted punitiveness score. When calculating the punitiveness, either -2 or 2 (standard deviations) is plugged into the equation for affiliation (see table 4) and the z-score for each respective film clip is plugged in for film condition.

In the first of these, film condition, affiliation, and their interaction were examined for their effects on punitiveness. *Figure 1a* shows the relationship between film condition and affiliation and their effect on how punitive the sample was on average. In the experimental film clip, an increase in affiliation leads to a decrease in level of punitiveness ($r = -.31, p = .09$). The opposite is true in the control film, where an increase in affiliation leads to an increase in punitiveness ($r = .17, p = ns$). The interaction of film condition and affiliation significantly effects punitiveness ($R = .25, \Delta R = .10, p = .07$) (see Table 5). Similarly for agency (see Figure 1b), an increase in agency in the control film leads to an increase in punitiveness ($r = 0.21, p = ns$),

whereas an increase in agency in the experimental film leads to decreased punitiveness ($r = -0.30$, $p = ns$).

Just as there is a relationship between film and affiliation/agency on punitiveness, gender moderates the effect of affiliation and agency on punitiveness. In the male sample, individuals that had higher levels of affiliation (see Figure 2a) were also less punitive ($r = -.48$, $p = .04$). Females that were high on affiliation tended to be higher on punitiveness ($r = .20$, $p = ns$). The interaction of gender and affiliation significantly effects punitiveness ($R = .30$, $\Delta R = .21$, $p = .02$) (see Table 5). The effect was similar for males ($r = -.30$, $p = ns$) and females ($r = .07$, $p = ns$) on levels of agency (see Figure 2b), with the effects going in the same direction.

Well-being differed from agency and affiliation when interacting with both gender and film condition. In the film condition (see Figure 3a), individuals in the experimental ($r = .11$) and the control ($r = .03$) groups tended to be more punitive with higher levels of well-being. Those that watched the experimental film were less punitive at low levels of well-being, but were more punitive at higher levels of well-being. Males ($r = .06$) and females ($r = .05$) both increased in punitiveness when levels of well-being increased, with males being more punitive at both low and high levels of well-being (see Figure 3b).

Affiliation, Agency, and Mood

Correlations were computed to assess the relationship between the Positive Affect (PA) and the Negative Affect (NA) scales of the PANAS and agency and affiliation. Considering the entire sample, PA had a positive correlation with affiliation ($r = .31$, $p = .02$), whereas NA was negatively correlated with affiliation (r

= -.39, $p = .002$). PA in females was found to be positively correlated with affiliation ($r = .33$, $p = .04$), whereas NA was negatively correlated with affiliation ($r = -.38$, $p = .01$). Similarly in males, PA was positively correlated to affiliation ($r = .40$, $p = .09$) and NA was negatively correlated with affiliation ($r = -.44$, $p = .06$). The PA and NA scales were negatively correlated with each other, indicating that they were measuring different constructs ($r = -.25$, $p = ns$).

Positive affect ($r = -.04$, $p = ns$) and negative affect ($r = .01$, $p = ns$) seemed to be unrelated to agency when considering the entire sample. There was a slight relationship by gender, with agency being negatively correlated to negative affect in females ($r = -.15$, $p = ns$) and positively correlated in males ($r = .15$, $p = ns$), whereas agency in both males ($r = -.09$, $p = ns$) and females ($r = -.05$, $p = ns$) were negatively correlated to positive affect.

Discussion

Social connectedness was hypothesized to have the opposite effect of death-related anxiety, which has been previously found to increase punitiveness (Rosenblatt et al., 1989). Affiliation was expected to strengthen the effectiveness of the connectedness construct. This means that individuals in the experimental condition (connectedness induction) with high levels of affiliation would be expected to have lower levels of punitiveness than individuals in the control condition.

We found that affiliation moderated the effect of the film clip on level of punitiveness. Individuals that had high levels of affiliation in the 42-up condition were more likely to be affected by the construct of Social Connectedness. Affiliation was a factor that made individuals more susceptible to connectedness. Unexpectedly,

the K-Web control condition, which was expected to be emotionally bland and unaffecting on level of punitiveness, led to participants being more punitive. This means that something about the control condition video clip may have brought about a higher level of punitiveness, and therefore a presumably lower sense of connectedness. Since the K-Web video clip instigated a higher level of punitiveness, there must have been something about the clip that induced something different to the construct of connectedness. Possibly due to the informative and educational components of the control film, individuals may have expected an examination following the film and therefore would have been more anxious. Since cultural worldview defense is an anxiety buffering mechanism, individuals that had an increased level of anxiety may have been expected to defend their worldview more by being more punitive towards transgressors. The anxiety reducing effect of the experimental video in contrast, due to a sense of connectedness, led to a decrease in the need to defend from the transgression.

Agency was also found, unexpectedly, to moderate the effect of film clip on level of punitiveness. High levels of agency were indicative of a more punitive participant (above the mean) in the control condition and a less punitive participant (below the mean) in the experimental condition. Since agency is related to achievement and power motivation (McAdams, 2006), individuals may be expected to be more punitive in the K-web condition due to the educational component of the clip. Participants watching the film clip may have a sense of anxiety due to the exposure to an overwhelming amount of material. An inability to understand all the

material or remember it for a possible examination may set off the participant's achievement and power motivational ideology.

Affiliation, Agency, and Gender

Bakan (1966) posits that there are “two fundamental modalities in the existence of living forms”. These two features are 1) agency, which is described as the need to be an individual and 2) communion, which is involved with the interaction with other organisms (affiliation). McAdams (2006) posits, using Bakan (1966), that there has been empirical evidence showing that males are more often associated with the agency modality (power oriented, striving for autonomy), and women are more often related with the communion modality (intimacy oriented, striving for connection). The current research found a relationship between gender, agency, and affiliation in the same direction. Males had a higher mean score on agency, whereas females were found to be more affiliative.

Gender was also related to the punitiveness of individuals at different levels of affiliation. Since females were more often expected to be affiliative, and affiliation was related to connectivity with others, females were expected to be less punitive towards others and more accepting of the transgressors. With disregard to affiliation and agency, females were found to be the less punitive of the genders. Men with higher affiliation were found to have an expected decrease in punitiveness, whereas inversely females were found to become more punitive with higher levels of affiliation. A possible explanation for females having higher levels of punitiveness is that females are more likely to be emotionally sensitive, so they may tend to be more sympathetic towards the victim of the transgression and therefore punish the

transgressor harsher than the males. Crowley, O'Callaghan, and Ball (1994) found, in a study of jury decisions based on a child abuse trial, that females were more likely to find the child victim credible and more likely to find the defendant guilty than were men. Similarly, Gabora, Spanos, & Joab (1993) found that females were more likely to convict a defendant accused of child abuse.

Figure 2a shows that though females were higher in punitiveness at high levels of affiliation, females were also less punitive at comparably low levels of affiliation. A possible explanation for this, when considering an evolutionary framework, is that since women are often more protective and involved in the reproduction and parenting process, they may be more punitive in an effort to protect their children. According to Anderson, Kaplan, and Lancaster (2007), men are less inclined to be involved in the parenting process of their children due to the possibility that they are not really the biological father of their children, better stated as paternity uncertainty. Men also have a wider variance in possible reproduction and therefore may often be considered the secondary caregiver to their children. Females delegate more resources towards the child due to their ability to be impregnated. Females who are low in affiliation may be less likely to feel a sense of connection or intimacy with others, which would include their children, and therefore wouldn't be as inclined to protect them. It is possible that low levels of affiliation in females could be indicative of depressive type symptoms. We found that affiliation had a significant negative correlation with negative affect in females. Denollet and De Vries (2006) found that negative affect is related to depression measured by the Center for Epidemiological Studies-Depression (CES-D) scale (Beekman, Deeg, Van Limbeek, Braam, De Vries,

& Van Tilburg, 1997). Depressive symptoms in mothers could lead to a decline in protective mother-like behaviors. In addition females high in affiliation will be more inclined to protect their children and therefore be more punitive towards transgressors. Since Crowley et al. (1994) and Gabora et al. (1993) both involved child abuse cases, females may be making a connection between the abused child and their offspring. Higher female punitiveness was not dependent on child abuse cases though, so the female juror may instead believe the transgressor will harm their child in a similar manner.

Alternatively, there may be a positive correlation between punitiveness and conventionality. For males it would be more conventional to be considered in the low affiliation group, whereas females would be more commonly found in the high affiliation group. Individuals that fit into the conventional group are more likely to be more punitive. Conforming to stereotypes or to the views of others may lead to an increased punitiveness. The authoritarian personality is described as a pattern of attitudes and traits suggesting a conventional, rigid, aggressive, hostile, and power-oriented type of person. An individual that is more conventional, a male low of affiliation and a female high in affiliation, could be showing one component of an authoritarian personality and therefore be more punitive due to a more rigid, aggressive and hostile nature. The authoritarian individual would be more intolerant of ambiguity and lower on the Big Five traits of openness to experience and agreeableness (McAdams et al., 2006).

A similar effect was found between agency and gender on level of punitiveness. Men who were high on agency were less punitive than females of

comparable agency level. A possible explanation for this would be that the removal of well-being made agency a different construct than anticipated. Also, achievement motivation may have been something salient in the film clips that induced a need for different levels of punitiveness between the genders.

Since females were the less punitive gender in the current study, there must be something that is added by affiliative extraversion and possibly agentic extraversion that leads to the higher levels of punitiveness found in Crowley et al. (1994), Gabora et al. (1993), and in the current study when high levels of affiliation and agency are taken into account.

Issues that may have attenuated results

A sample of 60 participants (approx. 30 per condition) may not have been enough to show significant results, but a majority of the results found were in the anticipated direction. The results, because of the small sample size, were less interpretable than if they were to have come from a larger sample.

The sample was made up of a majority of undergraduate female students and is not representative of a broad population. A disproportionate amount of females and undergraduate students skewed the results and may be the reason for the differences in affiliation and agency across gender.

Presumably due to a smaller than anticipated sample size and asymmetrical proportions within gender and age group, there was a limited amount of significant results.

Limitations of the MSTS

The edited form of the MSTS utilized in the current study may not have been the correct measurement to use to measure worldview defense. The additional items, which include mainly ambiguous items were harder to rate by the participants than anticipated. Some items had participants anticipating an additional answer (e.g. a warning or a fine) that was not a part of the 7-point Likert scale used. Following the experiment several participants complained about an inability to fully assess the degree of punishment needed for some of the transgressors. Items in which a possible punishment was not listed such as revoking of a medicine license or a fine (e.g., in item # 17: During a Caesarian birth a doctor observed an irregularity in the ovaries of a 22 year old patient. Rashly, he decided to perform a hysterectomy) were problematic for individuals that wouldn't send the transgressor off to prison, but also wouldn't let the transgressor free without a punishment.

Limitations of the MPQ

The extraversion scales of the MPQ were highly correlated and required a breakdown of the scales that they comprised of to try and decipher a difference between agency and affiliation. Though the scales were reliable, it is difficult to understand what difference we made in the constructs by removing the well-being scale from them.

Limitation of the Manipulation

The film manipulation may not have induced the “connectedness” construct that was anticipated. A stronger, longer, and more involved manipulation may be needed to induce “connectedness”. Though the video left some participants with a

feeling of warmth-affection, it was not to the degree needed. It was the intent of the video to leave the participant connected to Bruce, but some may not have connected with Bruce due to multiple differences between the participants and Bruce. The participants were mostly younger adults, female, and from the United States of American, whereas Bruce was 42 years old, male, and from England. Also, the K-Web manipulation may have induced a level of anxiety due to its overabundance of information and the participant's fear of examination. Future studies may need to consider different manipulation video clips to further understand the construct of connectedness.

Future Research

Future research on affiliation, agency, and connectedness should be conducted with a larger and more diverse sample. Further studies using the agency and affiliation scales of the MPQ must be used to understand more of the key differences within and between the scales and see what effect each of them have on punitiveness separate from a connectedness manipulation. It may be hypothesized from the current research, that females may be more punitive due to a more affiliative style. Agency's effect on connectedness needs to be evaluated further to see why the agency construct without well-being, is unrelated to affiliation, but still affects worldview defense in the same direction for both males and females.

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Table 1

Distribution of Gender within Film Condition

	<i>42-Up</i>	<i>K-Web</i>	<i>Total</i>
Male	14	5	19
Female	17	24	41
Total	31	29	60

Note. $\chi^2(1, N = 60) = 8.07, p = .005$

Table 2

Descriptive Statistics by Gender and Film Condition

	<u>Mean</u>	<u>Std. Deviation</u>	<u>Mean</u>	<u>Std. Deviation.</u>
Affiliation	-0.04	1.07	0.01	0.98
Control	-0.66	1.53	0.10	1.12
Experimental	0.18	0.81	-0.10	0.76
Agency	0.08	0.80	-0.04	0.74
Control	0.31	0.72	0.16	0.68
Experimental	-0.01	0.84	-0.32	0.74
Well-being	0.04	0.94	-0.02	1.04
Control	-0.42	1.75	-0.03	1.12
Experimental	-0.01	0.86	0.17	0.65
Punitiveness	-0.12	1.12	0.53	0.95
Control	0.05	0.95	0.07	1.11
Experimental	0.03	0.98	-0.14	0.94

Notes. N = 60

Table 3

Punitiveness by category

<i>Category</i>	<i>Items in each category</i>	<i>Mean</i>	<i>Std. Deviation</i>
Gender of victim			
Male victim	1,2,6,11,16	3.63	0.55
Female victim	5,10,15,17	3.95	0.65
Multiple victims	4,7,8,9,12,13,14,18,19	3.22	0.56
Intentionality			
Accidental transgression	4,5,10,12,14,15	4.02	0.73
Intentional transgression	1,2,6,7,8,9,11,13,16,17,18,19	3.29	0.47
Type of disturbance			
Physical disturbance	1,4,10,12,13,16,17,18,19	3.66	0.66
Psychological disturbance	2,6,15	4.54	0.66
Other disturbance	5,7,8,9,11,14	2.74	0.43

Notes. N = 60

Table 4

Regression analysis: Affiliation Predicted from Film and Gender

Film Condition	Punitiveness (Predicted by Affiliation)
Full equation	$0.007 + (0.063 * \text{film}) + (-0.12 * \text{Aff.}) + (0.26 * \text{Aff.} * \text{film})$
K-web condition:	$(0.15 * \text{Aff.} + 0.07)$
42-Up Condition	$(0.37 * \text{Aff.} - 0.05)$
Gender	
Full equation	$-0.008 + (-0.02 * \text{Gen.}) + (0.01 * \text{Aff.}) + (0.30 * \text{Aff.} * \text{Gen.})$
Male ^a	$(0.43 * \text{Aff.} + 0.02)$
Female ^a	$(0.21 * \text{Aff.} - 0.02)$

Notes. Standardized scores were used for Gender and Film Condition. Well-being is removed from the agency and affiliation constructs.

Aff. = Affiliation, Gen. = Gender.

^aSimplified regression equations are computed with z-scores for either gender or film.

Table 5

Effect of Gender and Film on Punitiveness

<i>Film Regression</i>	<i>R</i>	<i>Adj. R</i>	<i>ΔR</i>
Film	0.07	0	0
Affiliation	0.07	0	0
Film x Affiliation	0.25	0.11	0.11
 <u><i>Gender Regression</i></u>			
Gender	0.03	0	0
Affiliation	0.03	0	0
Gender x Affiliation	0.30	0.21	0.21

Table 6

Average Punitiveness for each MSTS item (ordered by punitiveness)

#	Short Description	Punitiveness
10	A single mother is injured in a hit-and-run accident, which leads to hospitalization and separation from her daughter.	4.98
2	A boy was injured by drunk driver. Boy becomes psychologically isolated from friends due to a year of separation.	4.87
6	A man is hit in a residential area by a driver that is speeding. His son saw it happen and is now anxious and has trouble sleeping.	4.6
12	A male doctor confused two patients and amputated the leg of the wrong one.	4.38
15	During a robbery, the burglar scattered personal files of the family. A 10-year old girl sees her adoption papers and becomes mute.	4.18
8	A man attempted to rob a sculptor's studio, but found no money. In frustration he destroys the artist's greatest sculpture.	4.13
17	During a Caesarian birth a doctor observed an irregularity in the ovaries of a 22 year old patient. Rashly, he decided to perform a hysterectomy.	4.1
16	A radical environmental group puts spikes in trees to stop logging of an old-growth forest. A logger is seriously injured when his chainsaw hits the spike.	3.85
14	A girl was diagnosed with a rare liver disease and was told that she required an expensive experimental treatment. The family had to sell their house to pay for the treatment, and then found that it was unnecessary.	3.68
1	The owner of a cement factory promised a community to install new filters on his smokestacks, but doesn't because of the cost. A young man loses his sight.	3.65

Table 6

Average Punitiveness for each MSTS item (ordered by punitiveness)

#	Short Description	Punitiveness
19	A doctor was negligent in removing a blister from an opera singer's vocal cords. This caused her to perpetually hoarse and unable to sing.	3.27
4	A man forgers to take his medication and loses consciousness while driving. He drives through a red light and injures occupants of another car.	3.00
13	A small clothing company uses an inexpensive fabric known to lead to a severe rash in a small proportion of individuals.	2.97
18	A restaurant owner uses a secret ingredient in a dinner entrée that many love, but it made several ill. The owner continues using it and a customer becomes hospitalized.	2.77
5	A man continually sends gifts to a female that doesn't respond to him. He continues calling her daily until she considers changing her number.	2.55
9	A single father without enough money to feed his 4 children steals apples from a fruit stand.	2.42
7	A man halts traffic outside of the Empire State Building in a last resort political protest.	2.38
11	A coach, who sees a lot of talent in a young boy, pushes to hard until the boy quits the team.	1.15
20*	A grocery store owner stops making donations of foodstuffs to local charities and claims they will just be discarded due to improper refrigeration.	1.08
3*	A single mother, who works late hours to support her children, must hire a nanny to watch her kids. Often she is unable to see her children before bedtime.	1.03

Figure 1a

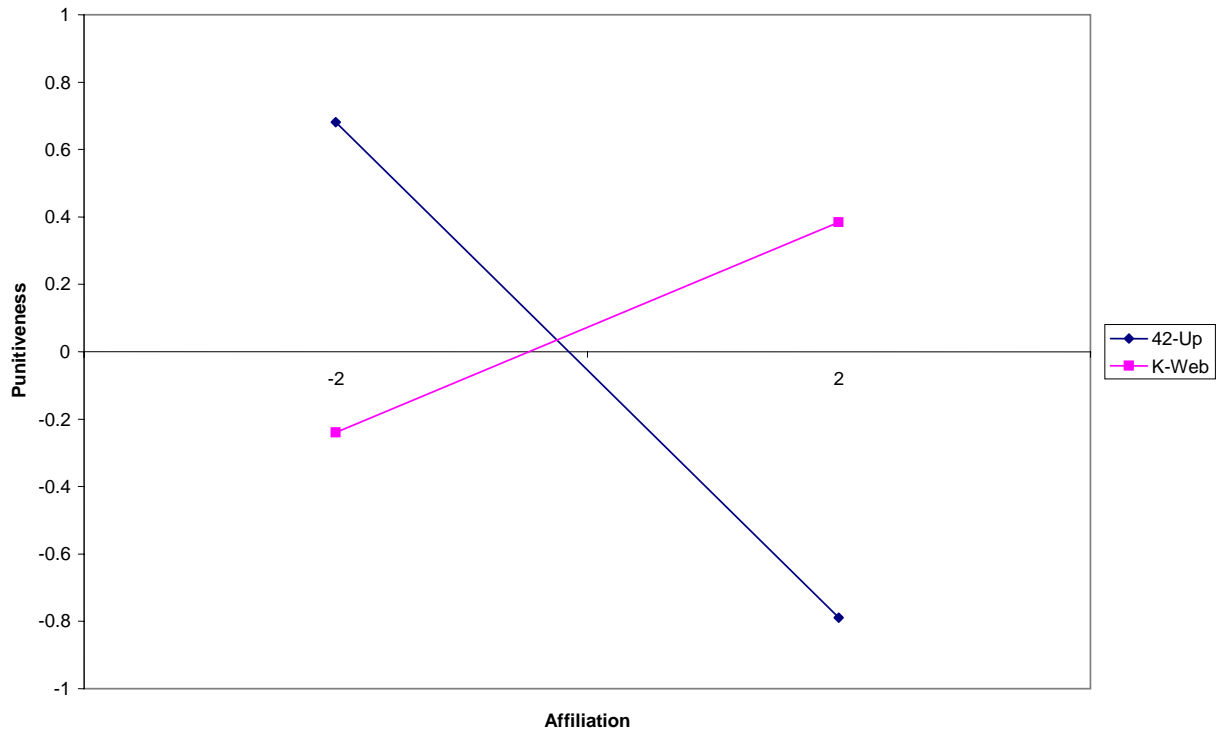


Figure 1b

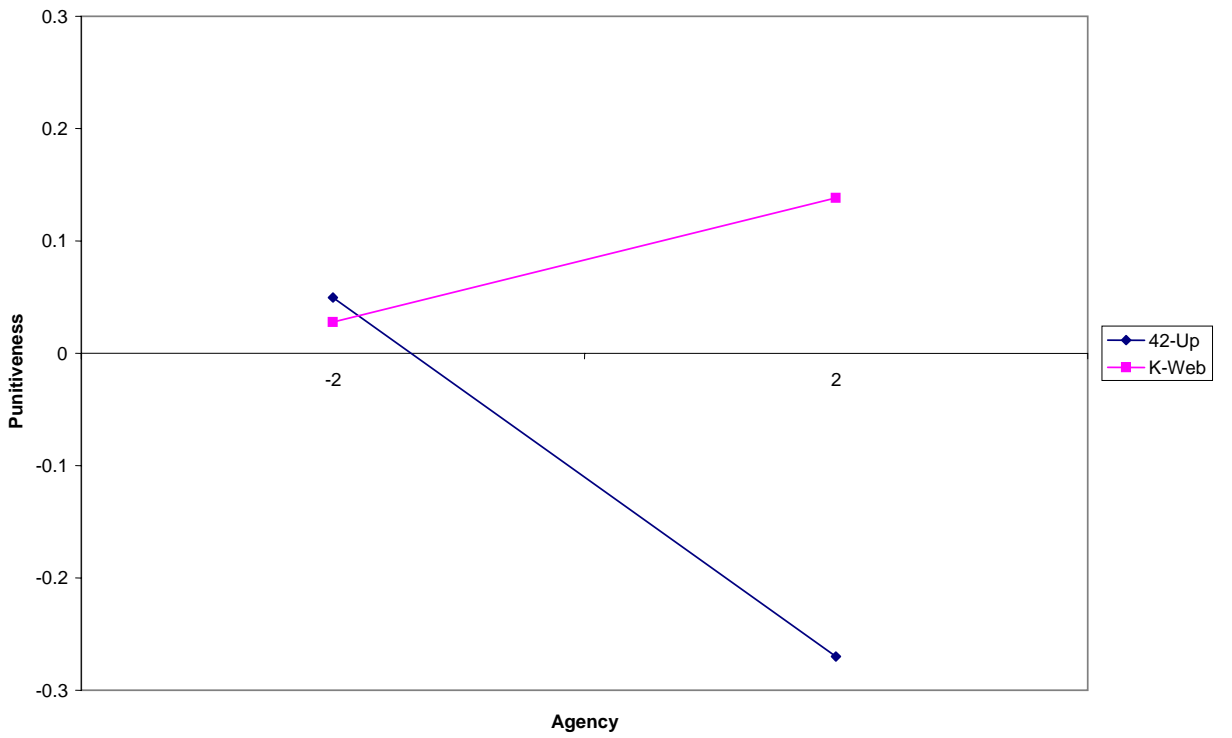


Figure 2a

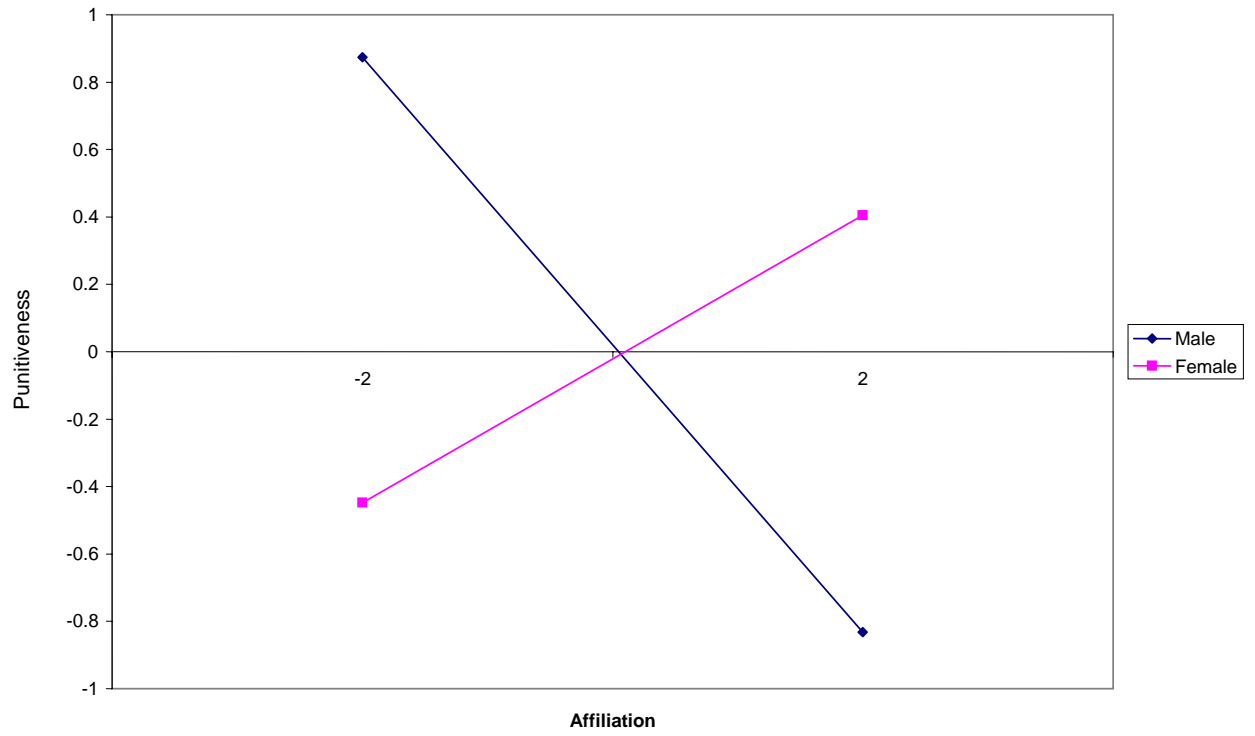


Figure 2b

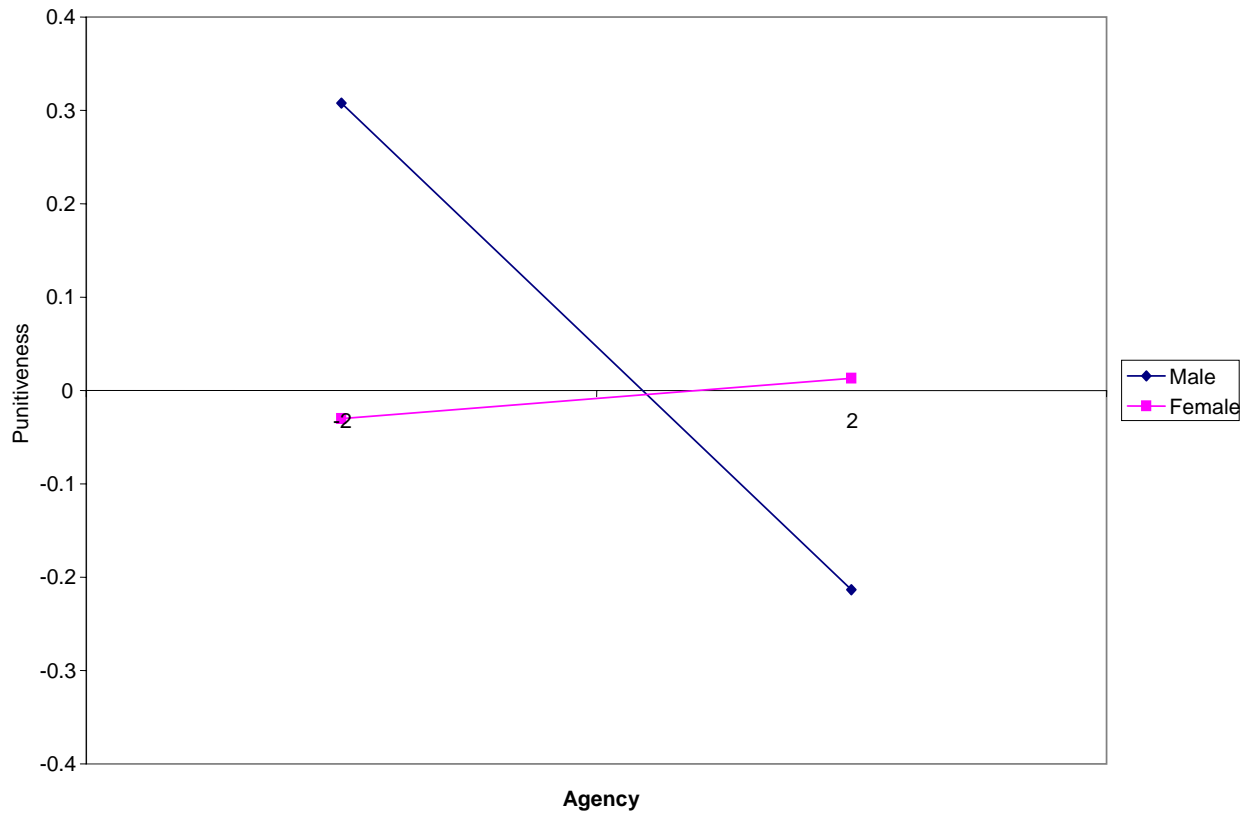


Figure 3a

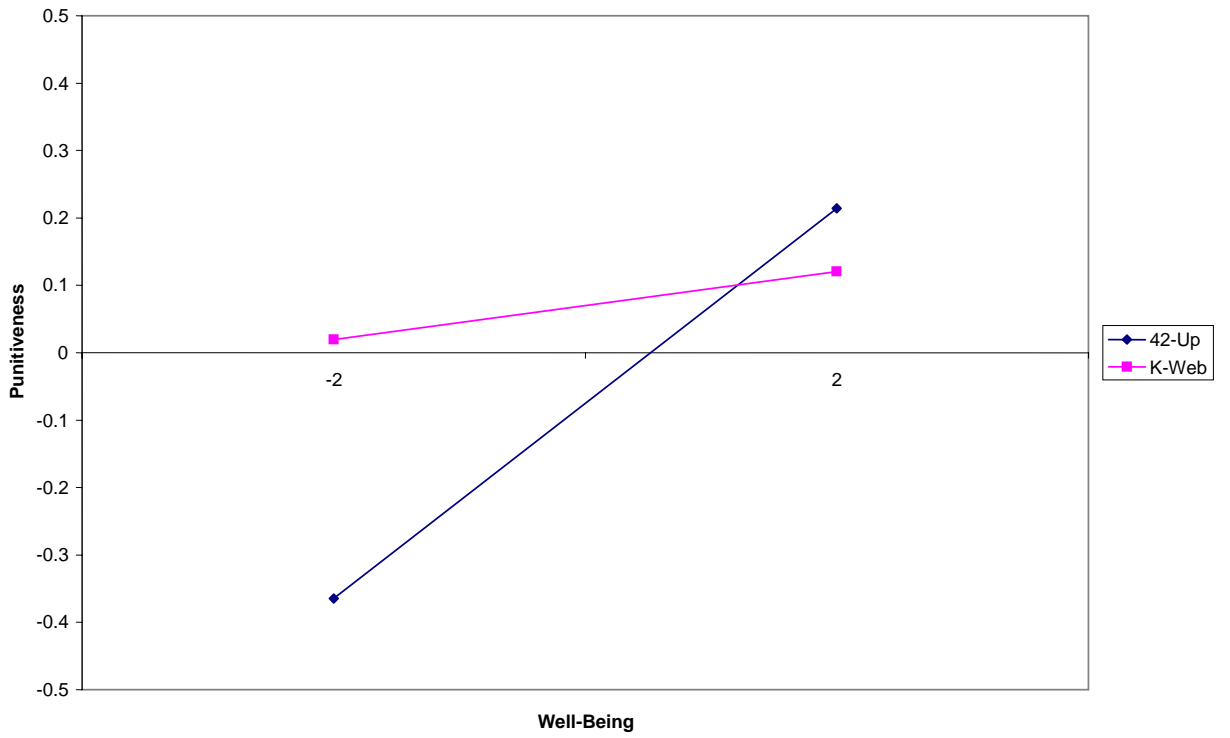


Figure 3b

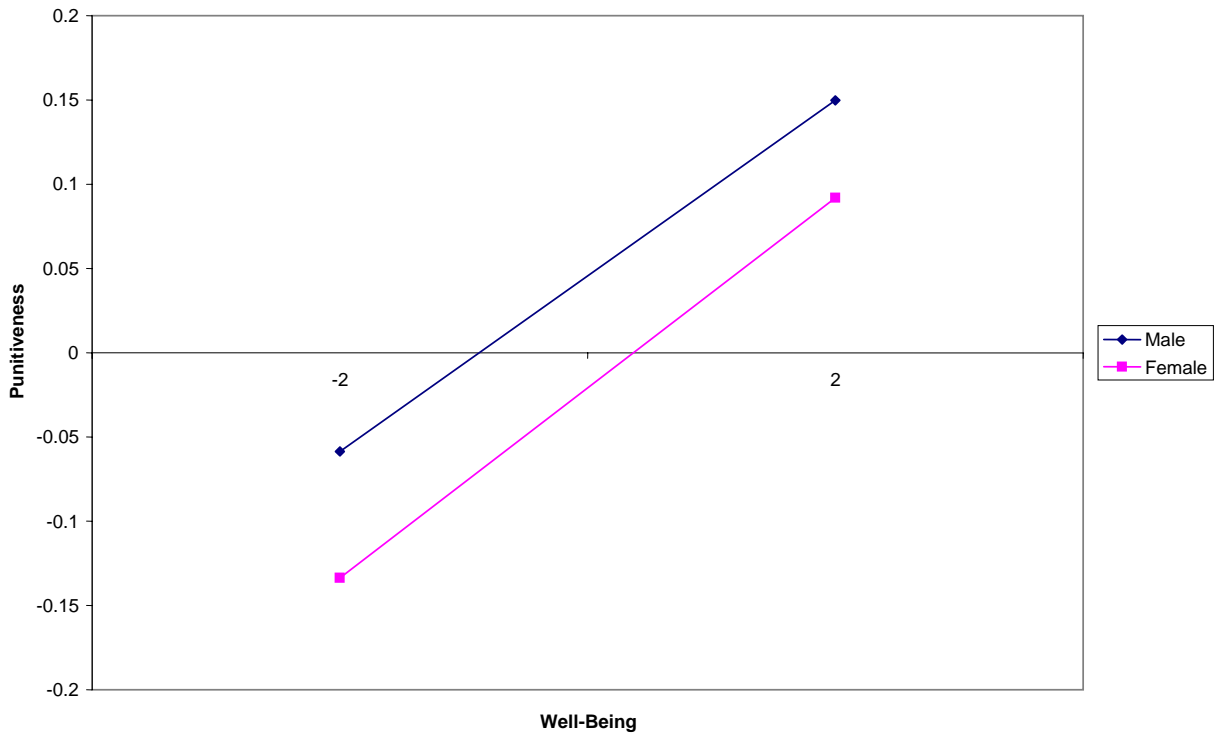


Figure Captions

Figure 1a. Effect of affiliation on punitiveness by film condition.

Figure 1b. Effect of agency on punitiveness by film condition.

Figure 2a. Effect of affiliation on punitiveness by gender.

Figure 2b. Effect of agency on punitiveness by gender.

Figure 3a. Effect of well-being on punitiveness by film condition.

Figure 3b. Effect of well-being on punitiveness by gender.

Appendix A: Demographics

Gender: Male Female

Race, culture, or ethnic identification

Please choose one or more of the following

- White
- Black or African American
- Asian
- American Indian and Alaska Native
- Native Hawaiian or Other Pacific Islander
- Hispanic
- Other / decline to state

Age:

- 19 or younger
- 20-29
- 30-39
- 40-49
- 50 or older

Educational level:

- Less than high school
- High school graduate
- Some college
- Bachelor's degree
- Postgraduate or professional degree

Have you seen any of the documentary films in the Up-Series (*7-Up, Seven plus Seven, 14-Up, 21-Up, 28-Up, 35-Up, 42-Up, or 49-Up*)?

Yes No Not sure

Appendix B: MPQ

Instructions: These statements deal with your general feelings about yourself. Use the following scale for your answers:

0	1	2	3	4	5	6
Not at all	a little	somewhat	moderately	strongly	very strongly	completely

- | | | | | | | | |
|--|---|---|---|---|---|---|---|
| 1. Just know that I will be a success. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 2. Love to chat. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 3. Avoid contacts with others. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 4. Am hard to get to know. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 5. Can talk others into doing things. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 6. Love life. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 7. Feel that my life lacks direction. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8. Plunge into tasks with all my heart. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 9. Have a low opinion of myself. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 10. Warm up quickly to others. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 11. Have a slow pace to my life. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 12. Want to be left alone. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 13. Make friends easily. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14. Am not highly motivated to succeed. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 15. Have little to say. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 16. Am good at making impromptu speeches | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 17. Excel in what I do. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 18. Talent for influencing people. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 19. Keep in the background. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |

20. Enjoy being part of a group.	0	1	2	3	4	5	6
21. Have a lot of fun.	0	1	2	3	4	5	6
22. Find it difficult to manipulate others.	0	1	2	3	4	5	6
23. Do too little work.	0	1	2	3	4	5	6
24. Take charge.	0	1	2	3	4	5	6
25. Continue until everything is perfect.	0	1	2	3	4	5	6
26. Feel lucky most of the time.	0	1	2	3	4	5	6
27. Do more than what's expected of me.	0	1	2	3	4	5	6
28. Do just enough work to get by.	0	1	2	3	4	5	6
29. Radiate joy.	0	1	2	3	4	5	6
30. Lack the talent for influencing people.	0	1	2	3	4	5	6
31. Have a dark outlook on the future.	0	1	2	3	4	5	6
32. Am often in a bad mood.	0	1	2	3	4	5	6
33. Often feel blue.	0	1	2	3	4	5	6
34. Work hard.	0	1	2	3	4	5	6
35. Avoid company.	0	1	2	3	4	5	6
36. Am open about my feelings.	0	1	2	3	4	5	6
37. Don't like to draw attention to myself.	0	1	2	3	4	5	6
38. See myself as a good leader.	0	1	2	3	4	5	6
39. Keep others at a distance.	0	1	2	3	4	5	6
40. Work too much.	0	1	2	3	4	5	6

Appendix C: MSTs

Instructions: Each of the following items describes a situation in which the actions of an individual lead to one or more negative consequences. Using the following scale, circle the number that corresponds to the appropriate punishment for the individual.

Response scale	
1) No punishment at all state prison	5) A medium sentence in state prison
2) A reprimand or warning by authority prison	6) A long sentence in state prison
3) Probation or community service possible	7) The largest punishment
4) A short sentence in a county jail	

1. Adam T. owns a cement factory. He promises the community that he will install new filters on his smokestacks, but does not do this because of the cost. A young man who lives next to the factory loses his sight. What would be an appropriate punishment for Adam T.?

Level of Punishment for Adam T.: 1 2 3 4 5 6 7

2. Mark P. was driving under the influence of alcohol and ran into a boy on the sidewalk. After missing a year of school, the boy appears physically fine, though psychologically he feels isolated from his friends. What would be an appropriate punishment for Mark P.?

Level of Punishment for Mark P.: 1 2 3 4 5 6 7

3. Jane B., a single mother who must work late hours to be able to support her children, hires a nanny to watch her children while she is working. Many nights she is unable to be home before her children are put to bed. What would be an appropriate punishment for Jane B.?

Level of Punishment for Jane B.: 1 2 3 4 5 6 7

4. Alex S. forgets to take his medication and momentarily loses consciousness. He drives through a red light and injures the occupants of another car. What would be an appropriate punishment for Alex S.?

Level of Punishment for Alex S.: 1 2 3 4 5 6 7

5. John M. continually sends gifts to a woman who does not respond to his favors. He continues to pursue her, calling her every day, forcing her to consider changing her phone number. What would be an appropriate punishment for John M.?

Level of Punishment for John M.: 1 2 3 4 5 6 7

6. Andy P. drove through a residential area at a speed of 100 mph and hit a man in front of his young son. Six months after the accident, the man has totally recovered, but his son, who was happy and carefree, appears anxious and has trouble sleeping. What would be an appropriate punishment for Andy P.?

Level of Punishment for Andy P.: 1 2 3 4 5 6 7

7. During rush hour, Jack N. halts traffic outside of the Empire State Building in a political protest. After years of being ignored, he feels this is his last resort. What would be an appropriate punishment for Jack N.?

Level of Punishment for Jack N.: 1 2 3 4 5 6 7

8. Joel W. attempted to rob a sculptor in his studio, but found no cash. In frustration, he destroyed the artist's greatest sculpture with a hammer, reducing it to rubble. What would be an appropriate punishment for Joel W.?

Level of Punishment for Joel W.: 1 2 3 4 5 6 7

9. Hank D., a single father, does not have enough money to buy food for his four children. At a fruit stand, he is seen putting apples into the pocket of his jacket. What would be an appropriate punishment for Hank D.?

Level of Punishment for Hank D.: 1 2 3 4 5 6 7

10. Tony L. was driving his car and severely injured a single mother in a hit-and-run accident. As a result, she and her daughter were separated due to a year-long hospitalization. What would be an appropriate punishment for Tony L.?

Level of Punishment for Tony L.: 1 2 3 4 5 6 7

11. Dave T., a coach of a soccer team sees much talent and ability in a young boy and pushes the boy to practice and work harder. The boy then quits the team. What would be an appropriate punishment for Dave T.?

Level of Punishment for Dave T.: 1 2 3 4 5 6 7

12. Dr. Eric Y. confused two patients and amputated the leg of the wrong one. What would be an appropriate punishment for Eric Y.?

Level of Punishment for Eric Y.: 1 2 3 4 5 6 7

13. Leon V., the president of a small clothing company, uses an inexpensive fabric which is known to lead to a severe rash in a small percentage of the individuals who come in contact with it. What would be an appropriate punishment for Leon V.?

Level of Punishment for Leon V.: 1 2 3 4 5 6 7

14. Dr. Stan R. diagnosed a girl with a rare liver disease. He told the parents that she required an expensive experimental treatment, which medical insurance would not cover. The parents were forced to sell their home to pay for the procedure. A medical review panel concluded that the treatment was unnecessary. What would be an appropriate punishment for Stan R.?

Level of Punishment for Stan R.: 1 2 3 4 5 6 7

15. In the course of a robbery, Mark B. scattered the personal files of a family throughout their home. Susie, a 10-year-old girl in the family saw some of these papers, including papers which revealed that she was adopted. Since this happened, she has become mute and has not spoken to anyone. What would be an appropriate punishment for Mark B.?

Level of Punishment for Mark B.: 1 2 3 4 5 6 7

16. Matt H., the leader of a radical environmental group, asks the members of his organization to put metal spikes into trees in an effort to stop the logging of an old-growth forest. A logger using a chainsaw on one of these trees is seriously injured when his chain breaks upon hitting the metal spike. What would be an appropriate punishment for Matt H.?

Level of Punishment for Matt H.: 1 2 3 4 5 6 7

17. Upon observing a slight irregularity in the ovaries of a 22-year old patient during a routine Caesarian birth, Dr. Paul T. made a rash decision to perform a hysterectomy, thereby sterilizing the woman without her consent. The young woman felt that "she would never be a complete person again." What would be an appropriate punishment for Dr. Paul T.?

Level of Punishment for Paul T.: 1 2 3 4 5 6 7

18. Nate O., a restaurant owner, created a dinner entrée in which the secret ingredient was an unusual spice. Many of the customers loved it, but several reported becoming ill. The owner continued to sell the dish, and one of his customers became hospitalized. What would be an appropriate punishment for Nate O.?

Level of Punishment for Nate O.: 1 2 3 4 5 6 7

19. Dr. Walt R. was negligent in removing a blister from the vocal chords of an opera singer, causing her to be perpetually hoarse and unable to sing without difficulty. What would be an appropriate punishment for Dr. Walt R.?

Level of Punishment for Walt R.: 1 2 3 4 5 6 7

20. Rick E., owner of the only grocery store in a small town, has stopped making donations of foodstuffs to local charities, claiming that the donations are being discarded because of a lack of proper refrigeration. What would be an appropriate punishment for Rick E.?

Level of Punishment for Rick E.: 1 2 3 4 5 6 7

Appendix D: PANAS-X

Instructions: How I feel right now. This scale consists of a number of words and phrases that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate *to what extent you feel this way right now, that is, at the present moment*. Use the following scale to record your answers.

1	2	3	4	5
very slightly or not at all	a little	moderately	quite a bit	extremely

cheerful
 disgusted
 attentive
 bashful
 sluggish
 daring
 surprised
 strong
 scornful
 relaxed
 irritable
 delighted
 inspired
 fearless

sad
 calm
 afraid
 tired
 amazed
 shaky
 happy
 timid
 alone
 alert
 upset
 angry
 bold
 blue

___ disgusted with self

___ active

___ guilty

___ joyful

___ nervous

___ lonely

___ sleepy

___ excited

___ hostile

___ proud

___ jittery

___ lively

___ ashamed

___ at ease

___ scared

___ drowsy

___ shy

___ angry at self

___ enthusiastic

___ downhearted

___ sheepish

___ distressed

___ blameworthy

___ determined

___ frightened

___ astonished

___ interested

___ loathing

___ confident

___ energetic

___ concentrating

___ dissatisfied with self

Appendix E: Debriefing Statement

The study you just completed is one that attempts to contribute to a major paradigm in social psychology, namely Terror Management Theory (TMT). Basically, TMT proposes that when thoughts of one's own death are made salient (or brought to mind), people tend to defend their worldview construct (their ideologies and cultural and religious beliefs) in order to boost self-esteem and decrease anxiety. The purpose of the current study was to evaluate the effects of life salient clips (i.e. clips that induce social connection) on self esteem, positive and negative affect (i.e. anxiety), and finally, test the amount of worldview defense as made evident by the tendency to punish transgressors. Apart of the packet that you have completed were measures of two proposed subscales of Extraversion, *agency* and *affiliation*, which are theorized personality traits purported to influence punitiveness, social connection and self esteem.