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“Nous sommes tous Américains”: The relationship between identification, mortality  
salience, and responses to the “War on Terror”

by

Enoch S. Landau

Honours Bachelor of Arts, York University, 2002

THESIS

Submitted to the Department of Psychology

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## Abstract

The present study sought to determine the conditions under which people were more or less likely to support restrictions on civil liberties in fighting the “War on Terror”. It was hypothesized that the more one identified with the victim of a terrorist attack, the higher their mortality salience (MS) would be, and the more likely they would be to support restricting civil liberties.

Study 1 piloted a questionnaire to measure MS. In Study 2, participants read a story about either a businessperson or student who either went to the dentist for painful dental work, or perished in the attacks of September 11, 2001. Measures were then collected on the degree to which participants identified with the protagonist, their MS, and the degree to which they supported restricting civil liberties in fighting terror.

It was hypothesized that 1: the more one identified with the victims of a terrorist attack, the greater one’s mortality salience would be; 2: the greater one’s mortality salience, the more likely one would be to support restrictions on civil liberties; and 3: the greater one’s identification with the victim (in the 9/11, but not the dental pain condition), the more likely one would be to support restrictions on civil liberties.

For *hypothesis 1*, no significant effects relating to identification with the protagonist in the vignette were found in terms of variations in MS. Results did show, however, that there was a positive, marginally significant correlation between the degree to which one identified with the protagonist (in the 9/11 condition) and MS.

With regard to *hypothesis 2*, no significant main effects or interactions were found, indicating that, counter to our hypothesis, neither identifying with the victim nor one’s MS affected the degree to which one supported restricting civil liberties in fighting

terrorism. Additionally, there was no significant correlation between MS and support for restrictions on civil liberties.

Likewise, support was not found for *hypothesis 3*, in that the degree to which one identified with the victim of a terrorist attack did not affect one's support for restricting civil liberties.

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*Well, John the Baptist after torturing a thief*

*Looks up at his hero the Commander-in-Chief*

*Saying, "Tell me great hero, but please make it brief"*

*Is there a hole for me to get sick in?"*

*The Commander-in-Chief answers him while chasing a fly*

*Saying, "Death to all those who would whimper and cry"*

*And dropping a bar bell he points to the sky*

*Saying, "The sun's not yellow it's chicken"*

- Bob Dylan

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## Introduction

The present research sought to determine the conditions under which individuals would tend to be more or less supportive of restrictions on civil liberties in the name of fighting terrorism. It was hypothesized that the closer one identified with the victims of the terrorist acts, the greater one's own mortality salience would be, and thus, the more likely one would be to support legislation that curtails individual and civil liberties (*Figure 1*). Mortality salience, essentially, is the accessibility of death-related thoughts. When one's mortality is made salient, one will normally react by supporting individuals who share similar worldviews, and derogating those who hold opposing views (Greenberg, Solomon, & Pyszczynski, 1997). Additionally, individuals will show an increased need for "protective structures", which, depending on the individual, could include specific religious beliefs, and political or cultural ideologies. The reasoning behind this is that when faced with one's imminent death, individuals will attempt to obtain some sort of immortality or death transcendence by affiliating themselves with cultural or religious constructs that they know will remain intact following their death (Greenberg et al., 1997).

In accord with Terror Management Theory (Greenberg et al., 1997) previous research has demonstrated that when one is reminded of one's own mortality (mortality salience), one is more likely to support legislation that restricts personal freedoms, such as the USA Patriot Act, though this effect is more pronounced among conservatives than liberals (Pyszczynski, Abdollahi, Solomon, Greenberg, Cohen and Weise, 2006). In the Pyszczynski et al. (2006) study, participants were either asked to "Please describe the emotions that the thought of the terrorist attacks on September 11, 2001, arouses in you"

and to “Write down as specifically as you can, what happened during the terrorist attacks on September 11, 2001” (p.531), or to fill out a parallel measure either inducing mortality salience (“Jot down, as specifically as you can, what you think will happen to you as you physically die” (p.528)), or a control measure asking about intense physical pain (the authors did not give the specific statement used; rather, they described it as a “parallel question focused on intense physical pain” (p.531)). Participants then completed measures assessing their support for practices such as engaging in preemptive attacks without evidence of an impending attack, using nuclear and chemical weapons to defend American interests at home and abroad, capturing Osama bin Laden even if it involves thousands of civilian casualties, and strengthening the Patriot Act at the expense of personal freedoms.

The authors combined the above measures (with the exception of the measure on strengthening the Patriot Act) to form a scale measuring “support for extreme force” (p.532), and found a main effect for the mortality salience vs. control contrast, in that those primed with mortality salience showed greater support for extreme force than those primed with extreme pain (there were no differences between those primed with terrorism and pain). Significant interaction effects were found for political orientation when mortality salience was compared to the control group, and when 9/11 was compared to the control group, in that conservatives primed with mortality salience or 9/11 were more likely to support the use of extreme force, while liberals did not support the use of extreme force, regardless of the prime used.

Results for participants’ support for the Patriot Act were similar; however, there were some differences, in that main effects for those primed with mortality salience and

9/11 differed significantly from the control group, with the former more likely to support the Patriot Act as compared to the latter. Likewise, there were similar interaction effects, where conservatives primed with mortality salience or 9/11 were significantly more likely to support the Patriot Act as compared to liberals, who showed low support for the Patriot Act in all three conditions (Pyszczynski et al., 2006).

While these results demonstrate that thoughts of death or 9/11 increase one's support for extreme solutions to global conflicts and support for the Patriot Act, they also illustrate the importance of one's cultural worldview in determining how one reacts to thoughts of death. Because liberals' cultural worldviews are more likely to include tolerance for outgroups and the protection of civil rights, when primed with thoughts of death, as per TMT, liberals will tend to revert back to these worldviews. Indeed, Pyszczynski et al. (2006) address this idea in stating that "the value of tolerance that is central to liberal ideology is inconsistent with hostile reactions toward those who are different, making negative reactions to MS a potential threat to self-esteem and thereby preventing liberals from responding to MS in this way" (p.533).

In this and previous research, mortality salience has been used mainly as an independent variable; that is, participants' mortality (or thoughts about dental pain) was made salient, followed by measures assessing things such as their support for George W. Bush or John Kerry in the 2002 U.S. presidential election (Landau, Solomon, Greenberg, Cohen, Pyszczynski, Arndt, Miller, Ogilvie & Cook, 2004), or support for the Patriot Act (Pyszczynski et al., 2006). In these studies, mortality salience did indeed increase participants' support for President Bush over John Kerry both in liberals and conservatives, as well as support for the Patriot Act, though in the latter case, there was

an interaction in which more pronounced effects were observed in conservatives than liberals.

In extending this line of research, the present study sought to determine whether the degree to which one identified with the victims of a terrorist attack affected one's mortality salience, and in turn, whether the degree to which one's mortality salience had been induced affected one's willingness to limit civil liberties in fighting the "War on Terror". Given the mediational role of mortality salience in this design, it is necessary to treat it as both an independent variable and a dependent variable. Whereas in the past, research was more concerned with the numerous effects of having one's mortality being made salient, in addition to this, the present study sought to measure the varying degrees to which mortality could be made salient, and as such, measured one's mortality salience on a scale. Because of the need to treat mortality salience as a dependent variable, and the lack of an available questionnaire to measure this construct, part of the present study was concerned with the development of such a measure (Study 1); this measure was then used in testing the model outlined in Figure 1 (Study 2).

The rationale behind this methodological shift was based in part on the findings of the above-mentioned studies. The next step in this line of research, then, was to determine *how* mortality salience is aroused, the factors that determine differential levels of arousal, (such as group identification, as was tested in Study 2), and how this affected the degree to which one was more or less likely to support restrictions on individual and civil liberties. It was hypothesized that those who had a greater identification with the victims of a terrorist attack would show higher levels of mortality salience, and thus,

would be more likely to support limitations on civil liberties in the name of fighting the “War on Terror”.

In order to gain a clear understanding of the theories and rationales behind the above hypotheses, I will first outline Terror Management Theory (Greenberg, Solomon, & Pyszczynski 1997), Social Identity Theory (Tajfel & Turner, 1979) and Self Categorization Theory (Turner, 1987).

### *Terror Management Theory*

Terror Management Theory (TMT; Greenberg, Solomon, & Pyszczynski, 1997) came about as a way to address a fundamental human dilemma: by recognizing that we are alive, we also face the inevitability of our own death. This realization creates anxiety, and TMT addresses the ways in which we deal with (manage) this “death anxiety”. The present section will review the key theoretical foundations of TMT, and relate it to the current research.

The primary way in which we overcome our anxieties about death is by creating a world that gives us meaning, order, and death transcendence (immortality). In order to do this, we adopt and support our own *cultural worldviews*, which can take the form of several constructs such as religion, political ideology, or culture, and act as protective structures. In essence, because we know that we are not immortal, we strive to seek immortality by identifying ourselves with, and placing ourselves in, a larger system which we know will survive beyond our years. It is these protective structures that provide us with this immortality, thus easing our mortality-related anxieties (Greenberg et al., 1997). As such, in TMT, identification with a group is contingent on the group being

able to offer a cultural worldview and immortality (Moskalenko, McCauley, & Rozon, 2006).

Because these cultural worldviews represent the greater system in which we see ourselves as players, “it [is] possible for people to feel significant (to have self-esteem) through the adoption of social roles...[resulting in the] consequent satisfaction of associated standards of value” (Greenberg et al., 1997, p.65). In other words, self-esteem “serves as the primary psychological mechanism through which culture performs its anxiety-buffering function” (Greenberg et al., 1997, p.67).

Challenges to our worldviews by others with differing worldviews, thus, are psychologically unsettling because they represent attacks on our immortality and self-esteem (it is for this reason, then, that one’s cultural worldviews are so fragile). Accordingly, individuals will feel prejudiced towards those who hold alternative worldviews, and will respond to challenges to their own worldviews in one of three ways: derogation, assimilation, or accommodation. With derogation, individuals simply brush off alternate worldviews as inaccurate or nonsensical. In the current analysis, this can take the form of the extremist who declares war on all those who do not support his version of reality, or that of a political leader or citizen who dismisses others’ viewpoints as “wrong”. Those who use assimilation as a tool for dealing with challenges to their worldviews strive to convince others around them to adopt worldviews similar to their own. The classic example of this would be the missionary who seeks to show other people ‘the light’. Lastly, with accommodation, one will accommodate differing worldviews into one’s existing worldview, thus lending alternate ideas legitimacy by also adopting them as one’s own. An example of this could include someone, who, after

hearing what the missionary has to say, 'sees the light', or in a simpler, more everyday form, someone saying, "You make a very good point, and I will take that into consideration when making my decision". The overarching goal of all three strategies is to allow individuals to maintain their self-esteem when faced with worldviews that do not match their own (Greenberg et al., 1997).

*Anxiety buffer hypothesis.* The Anxiety Buffer Hypothesis (Greenberg et al., 1997) is built on the premise that augmenting structures that provide us with protection against death anxiety act to prevent subsequent anxiety. As mentioned, these structures are cultural worldviews and self-esteem. Therefore, when one acts in ways to increase one's self-esteem or faith in worldviews in response to threats, the effect will be a reduction in anxiety. Likewise, when individuals are reminded of their mortality (mortality salience), they subsequently seek to validate their self-worth and faith in their worldview (Greenberg et al., 1997).

*Mortality salience hypothesis.* Mortality Salience is the degree to which we are aware of our own mortality, and can be elicited on both implicit and explicit levels; that is, whether we are actively contemplating our own death, or simply driving past a cemetery, our mortality may become salient. Indeed, implicit priming studies by Landau et al. (2004) were able to activate mortality salience by presenting participants with implicit primes of either 911 or WTC, whereas mortality salience was not activated by implicitly priming participants with the number 573 (a local area code). Other studies have elicited mortality salience by asking participants to write about their own death (Jonas & Fischer, 2006).

According to the Mortality Salience Hypothesis, when individuals are made aware of their own mortality, they react in a number of differing ways. For example, mortality salience will increase ingroup favouritism and outgroup rejection (See & Petty, 2006), will cause individuals to respond negatively to those who challenge their worldview and positively to those who support it, and will increase their need for protective structures (Greenberg et al., 1997).

Interestingly, simply eliciting negative affect in individuals does not result in the same effects as mortality salience. For example, when participants are asked to “Write a few sentences about what you think will happen to you when you physically die, and the emotions that the thought of your own death arouses in you”, they will show the above-mentioned effects associated with mortality salience, yet when they are asked the parallel question “Write a few sentences about what you think will happen to you when you visit the dentist, and the emotions that the thought of having dental work performed on you arouses in you”, the effects of mortality salience are not observed, yet in both cases, participants will show similar levels of negative affect (Greenberg, Simon, Harmon-Jones, Solomon, Pyszczynski, & Lyon, 1995) on the Positive and Negative Affect Scale (PANAS; Watson, Clark, & Tellegen, 1988) (see Appendix L).

*Factors affecting the effects of Mortality Salience.* While the effects of mortality salience have been well documented, so too, have a number of factors which moderate the effects of mortality salience. For example, since the effects of mortality salience inductions normally take place without the individual actively drawing the link between fear of mortality and the bolstering of worldviews, the effects of mortality salience can be attenuated by asking one to “think rationally”. The reasoning behind this is that the

accessibility of death-related thoughts (as measured by the effects of mortality salience) is dependent on these thoughts not being consciously accessible; therefore, rationally considering these thoughts brings them to conscious awareness, thus mitigating the effects of mortality salience (Simon, Greenberg, Harmon-Jones, Solomon, Pyszczynski, & Arndt, 1997). This also explains why the effects of mortality salience are more pronounced in subtle, as opposed to strong, inductions, and when participants are unable to ruminate about the mortality salience induction prior to its effects being measured (Greenberg et al., 1997).

Consistent with the notion that the effects of mortality salience serve to bolster one's self-esteem, those with high levels of self-esteem, whether trait or state, are able to "contemplate their mortality without responding defensively by bolstering their worldview" (Greenberg et al., 1997, p.94).

In addition to self-esteem, one's political ideology and leadership style also serve to influence the effects of mortality salience. For example, high, but not low, authoritarians respond to mortality salience with increased derogation of dissimilar others (Greenberg et al., 1990), whereas liberals are more likely than conservatives to retain their levels of tolerance toward dissimilar others following mortality salience (Greenberg, Simon, Pyszczynski, Solomon, & Chattel (1992a). Skitka and Tetlock's (1993) notion that conservatives tend to be more intolerant of ambiguity than liberals (i.e., everything has to be black and white), while liberals tend to be more integratively complex (i.e., different perspectives must be taken into account), is touched upon by Pyszczynski et al. (2006) in their assessment of cultural worldviews:

"Cultural worldviews have been characterized as fitting one of two types (Pyszczynski et al., 2003). The first type, 'the rock' is a relatively secure, rigid

conception that emphasizes absolutes of good and evil; proponents of such worldviews hold them with great certainty, and the primary negative emotion they experience when their worldview is threatened is anger directed toward that which is designated as evil. The second type, 'the hard place', is a more flexible and hence less secure worldview that emphasizes the relativity and complexity of assessments of right and wrong; proponents of such worldviews live with uncertainty, and the primary negative emotion they experience is anxiety" (Pyszczynski et al., 2006, p.536).

*TMT and the present research.* According to TMT, we view our ingroup as an extension of our cultural worldview (Castano, Yzerbyt, Paladino, & Sacchi, 2002); in other words, we view our ingroup as a means toward immortality. Accordingly, the present study hypothesizes that when our ingroup, with which we strongly identify, is physically threatened, we will view this as a threat to ourselves, and as such, react with increased levels of mortality salience. It is because of this increase in mortality salience, consequently, that we find ourselves in the position of doing whatever is necessary to save our group, and by extension, ourselves (this idea can be seen in the title of Castano's (2004) article *In case of death, cling to the ingroup*). Consistent with this idea, the present study hypothesizes that when one's mortality salience is aroused as a result of a physical threat to the ingroup, one will be more likely to support more extreme measures to curb this threat, including measures which seek to limit individual and civil liberties in the name of making us safe. Given the results from Pyszczynski and colleagues (2006), however, it is anticipated that one's political ideology will affect one's overall willingness to support extreme measures, with those on the right side of the spectrum more inclined to support such practices.

As can be seen, one of the mechanisms under which TMT operates is one's group identification. Therefore, in order to fully understand TMT, it is necessary to also

understand how individuals identify with and categorize themselves into social groups. These functions will now be addressed in discussing Social Identity Theory (Tajfel, 1978; Tajfel & Turner, 1986), and Self-Categorization Theory (Turner, 1987).

### *Social Identity Theory and Self-Categorization Theory*

The purpose of Social Identity Theory (Tajfel, 1978; Tajfel & Turner, 1986), and Self-Categorization Theory (Turner, 1987) is to further our understanding regarding the ways in which we identify with and categorize ourselves into particular groups, and the effects these identities and categorizations have on ourselves and our referent in/outgroups. More specifically, “Where *social identity theory* focuses on the consequences of categories as subjectively self-defining, *self-categorization theory*... asks how they get to be self-defining in the first place” (Oakes, 2002, p.813). Identities, it should be noted, are “emergent, context-specific outcomes of the interaction between the perceiver and social reality, as expressed through the categorization process” (Oakes, 2002, p.815), while groups are defined as “...a collection of individuals who perceive themselves to be members of the same social category” (Tajfel and Turner, 1986, p.15). To this end, the present section will highlight the basic tenets of each theory.

*Social Identity Theory.* In a nutshell, SIT examines the ways in which individuals subjectively “construct their social identities to suit their needs... SIT is one of the most elegant social-psychological theories there is, describing in detail how people’s psychological motivations (e.g., desire for positive regard) interact with their understandings of their social situation (e.g., whether group boundaries are stable or legitimate) to influence intergroup attitudes and behaviours” (Sidanius, Pratto, van Laar, & Levin, 2004, p.863).

More specifically, the underlying processes that facilitate the effects of SIT are categorization and self-enhancement. With categorization, individuals seek to define themselves in terms of a social category, and as such, find similarities and contrasts between their ingroup and outgroups, using primarily stereotypic constructs. This then enables one to use the process of self-enhancement to extend positive ingroup qualities onto the self, thus strengthening the seamless associations between the individual and the ingroup. Consequently, this also causes the individual to reject associations with the outgroup, thus facilitating ethnocentrism (Terry, Hogg & White, 2000). This idea that favouring the ingroup over the outgroup in order to maintain and increase self-esteem, it should be noted, is one that is shared with TMT.

The further one identifies with one's group, the less one sees oneself as an individual, and hence, the more likely one is to act in accordance with group norms, as opposed to one's individual volitions; this process is referred to as *depersonalization*. As such, when group salience is high, one's behaviour is determined more by the prototypical norms of the group, as opposed to when group salience is low, where behaviour is guided more by individual choice as opposed to the expectations of the group (Terry et al., 2000).

*Self-Categorization Theory*. Like SIT, SCT acknowledges the role of cognitive and motivational factors in determining the strength and type of social identity (Huddy, 2001). As mentioned, where SIT focuses on the outcomes of group identification, SCT is primarily concerned with the way in which these group identifications form in the first place (Oakes, 2002). "According to self-categorization theory, individuals are more likely to think of themselves as members of social groups under conditions in which the

use of a group label maximizes the similarities between oneself and other group members, and heightens one's differences with outsiders (Turner et al., 1987)" (Huddy, 2001, p.134).

The main component in determining the degree to which one chooses to identify with a particular group, and the specific ingroup one chooses to identify with, is context. Because context is a dynamic construct, so too, then are the salencies and strengths of our various identities, which Oakes (2002) describes as an "interactive product of person and social context" (p.820). It is context, therefore, according to SCT, that determines group behaviour (Huddy, 2002). The two specific factors that affect one's construal of context are comparative fit and normative fit. With comparative fit, one seeks to determine the degree to which ingroup members are similar to each other and different from outgroup members. Normative fit, on the other hand, is more concerned with "...expectations about the actions and behaviours of typical group members" (Huddy, 2002, p.829). Additionally, the interaction between fit and *accessibility* also determines both salience and depersonalization (Turner, 1987). "Accessibility of an ingroup-outgroup categorization is defined as its readiness to be retrieved from the perceiver's repertoire and to be applied to stimuli" (Voci, 2006, p.74).

According to SCT, it is hypothesized that "the depersonalization of self-perception is the basic process underlying group phenomena (social stereotyping, group cohesiveness, ethnocentrism, co-operation and altruism, emotional contagion and empathy, collective action, shared norms and social influence processes, etc.)" (Turner, 1987, p.50).

*Saliency.* Saliency can be defined as the psychological significance of one's identity as a group member, and affects the ways in which individuals interact with specific groups, and members thereof. As Oakes (1987) states, however, it is not "the perceptual prominence of the relevant cues" (p.119). As such, individuals are constantly shifting back and forth between individual and group identities, with the strength of these identifications being determined by the degree to which being included in a specific group serves the individuals' needs. These needs can include anything from one's desire to meet others with similar hobbies, as one would do when joining, say, a photography group, to the need for immortality, as individuals seek when they adopt the identity advocated by their cultural worldview. Because individual needs vary in relevance and importance, so too, then should the degree to which individuals identify with groups that meet these needs, and the saliency thereof. Additionally, "...the greater the difference between reference group and comparison group...the greater is the individual's feeling of being a member of the reference group; that is, the more salient is group identity" (Buss and Portnoy, 1967, p.108 in Turner et al., 1987, p.121). In line with this idea, Turner (1987) hypothesizes that "...there tends to be an inverse relationship between the saliency of the personal and social levels of self-categorization" (p.49). In sum, "Under conditions in which a social categorization is psychologically salient, people categorize themselves in terms of the prototypical properties of the self-inclusive category. They experience a sense of in-group identification and a depersonalization of perception and conduct" (Hogg, Hains, & Mason, 1998, pp. 1248-9).

*SIT, SCT, and the present research.* The logic behind the underlying hypothesis of the present study, that the strength with which one identifies with the victim of a terror

attack (which in the present study involves an ingroup/outgroup manipulation) will affect one's mortality salience, becomes apparent as SIT and SCT are further clarified. The primary rationale for this link is the idea of depersonalization. As mentioned, the greater the 'blur' between the individual and the group, the greater one's level of depersonalization will be. Accordingly, then, when one's ingroup is threatened, so too is the individual. The reasoning behind this idea stems from TMT's linking of the ingroup with immortality, in that individuals will seek a vehicle for immortality through their ingroup. Given previous research which has demonstrated that when individuals are primed with mortality salience, they are more likely to demonstrate a higher level of ingroup bias (Castano et al., 2002), even in a minimal groups paradigm (Harmon-Jones, Greenberg, Solomon, & Simon, 1996), the present study seeks to test whether the opposite can also be true; that is, whether priming ingroup identification can elevate one's mortality salience in instances of physical threat. Accordingly, the present study hypothesizes that the greater the level of group identity, the greater one's level of mortality salience will be when one's ingroup is threatened by a terrorist attack.

Additionally, the degree with which one identifies with a specific group is dependent on how accessible and relevant the similarities with the ingroup, and differences with the outgroup, are, as well as whether one's ingroup is presented in a favourable light. For example, when women were primed with mortality salience and then told they would be taking the verbal section of the SAT, they perceived themselves as more similar to other women, compared to a control (dental pain) group. However, when female participants were primed with mortality salience and then told they would be taking the math section of the SAT, which has been shown to create a stereotype threat

in women (Spencer, Steele, & Quinn, 1999), they subsequently identified less with their gender (Arndt, Greenberg, Schimel, Pyszczynski, & Solomon, 2002). This same logic can apply to the victims of terrorist attacks. Whereas people seldom primarily identify themselves as “North American” (especially when they are living on a continent full of other North Americans), once their membership in this group is made salient, as is the case when Osama bin-Laden releases his audio recordings reminding North Americans that they are still targets for terror attacks, then all of a sudden, this identity is highly accessible, and thus salient. Under these conditions then, a threat to North America is a threat to one’s self.

#### *Overview of the Present Study*

The present study sought to determine the conditions under which individuals were more or less likely to support restrictions on civil liberties in fighting the “War on Terror”. To this end, the main study (Study 2) employed a 2 x 2 design, in which participants were asked to read one of four scenarios, involving a protagonist (matched for sex with the participant) who was either a student or business-person, and who either perished in the terrorist attacks of September 11, 2001, or underwent painful dental work. Participants then filled out questionnaires measuring the degree to which they identified with the protagonist, the degree to which they support restrictions on civil liberties, and mortality salience. Study 1 piloted a questionnaire designed to measure mortality salience.

It was hypothesized that: 1: the more one identified with the victims of a terrorist attack, the greater one’s mortality salience would be; 2: the greater one’s mortality salience, the more likely one would be to support restrictions on civil liberties in fighting

terror; and 3: the greater one's identification with the victim (in the 9/11, but not the dental pain condition), the more likely one would be to support restrictions on civil liberties in fighting terror.

### Study 1

Since the novelty of our design involved assessing mortality salience as a dependent variable, prior to the main study's implementation (Study 2), it was necessary to first create and pilot a measure designed to accurately assess variations in mortality salience (Study 1). This was achieved through an on-line measure, and involved 106 participants in the Introduction to Psychology course at Wilfrid Laurier University. Participants were asked to write either about their thoughts on death (experimental condition) or their thoughts on dental pain (control condition). This was followed by 3-5 minutes of filler material, and finally, the mortality salience pilot questionnaire. It was hypothesized that those in the experimental condition would have higher scores on a measure of mortality salience than would those in the control group, and that as participants completed the questionnaire, their mortality salience would increase, thus yielding higher scores on the second half of the questionnaire compared to the first half.

### *Method*

#### *Study 1*

*Participants.* Pilot testing for our mortality salience measure involved 106 Introduction to Psychology students at WLU; however, participants with missing data were excluded, yielding a final sample size of 92 (20 males, 72 females), ranging in age from 17-29;  $M = 18.35$  ( $SD = 1.52$ ). Participants reported their ethnicity as White (69.3%), Asian (4%), East Indian (3%), Other (1%), or did not report ethnicity (22.8%).

*Procedure.* In piloting a measure for mortality salience, participants were first primed with either a heightened awareness of their own mortality, or with a control measure (dental work). Consistent with practices routinely employed within the mortality salience literature (see Greenberg, Solomon, & Pyszczynski, 1997 for a review), mortality salience was induced by asking participants to “Write a few sentences about what [you] think will happen to [you] when [you] physically die, and the emotions that the thought of [your] own death arouses in [you]” (p.78). Control participants were asked to respond to a parallel measure asking them to “Write a few sentences about what you think will happen to you when you visit the dentist, and the emotions that the thought of having dental work performed on you arouses in you”. Participants were then given filler material for 3-5 minutes, followed by our pilot questionnaire designed to assess the degree to which mortality salience has been induced (previous research has demonstrated that the effects of mortality salience are most pronounced when participants are given neutral distracter materials between the induction of mortality salience and the dependent measures; this is because it prevents participants from actively ruminating about, and thus, mitigating, their concerns about mortality (Greenberg, Pyszczynski, Solomon, Simon, & Breus, 1994)).

For the filler in the on-line pilot, participants were shown a screen with a text box for them to write in, and were given the following instructions: “Please describe your daily routine in as much detail as possible. You will have 3.5 minutes (210 seconds), so please try to write for as much of this time as possible. You can include things like your morning routine, how you spend your typical day, evening routine, etc... Once the time has elapsed, you will automatically be forwarded to the next page”.

## *Measures*

*Mortality salience questionnaire.* The primary goal in developing the mortality salience questionnaire (see Appendix O) was to find an accurate way to tap the degree to which one was aware of one's own mortality on a continuum. Whereas it has been common to view mortality salience as a discrete independent variable (either the thought of one's own mortality has been induced or not), the goal in developing the present scale was to try to find a way to assess the differential degrees to which one's mortality has been made salient.

The pilot measure consisted of fourteen items, each designed to assess in one form or another, the degree to which one is aware of one's own death, the conditions under which one will die (i.e., how soon), one's concern about dying, and what the reactions of one's loved ones will be. Items were chosen to represent both state- and trait-like aspects of mortality salience. Additionally, an attempt was made to make the scale balanced, with some items reflecting concern with mortality salience and others reflecting comfort with the notion of mortality (these items were reverse-coded when scored). Participants were asked to "Please indicate your answers to the following questions on a scale of 1 (*Strongly Disagree*) to 9 (*Strongly Agree*)", and their responses were combined to form one single measure of mortality salience (Table 1).

To summarize, participants first received the mortality salience or dental pain induction, followed by the filler material, and finally, the Mortality Salience Questionnaire.

## Results

### *Study 1*

In order to test our hypothesis that those in the Mortality Saliency (MS) group would have higher levels of MS than the Dental Pain (DP) group, the 14 items from the MS questionnaire were added together to form a single combined score. Independent samples *t*-tests were performed, comparing the 14-item totals between the two groups. Marginal one-tailed differences were found, indicating that those in the mortality saliency group had higher levels of mortality saliency than did those in the dental pain group  $N = 91$ ; ( $M_{DP} = 73.72$ ,  $SD = 19.41$ ,  $n = 44$ ), ( $M_{MS} = 80.02$ ,  $SD = 18.63$ ,  $n = 47$ ),  $t(89) = -1.58$ ,  $p = .118$  (two-tailed). Reliability analyses were performed on all 14 items, yielding a Cronbach's Alpha of .832, and overall  $M$  for all items = 76.98,  $SD = 19.17$ .

Using the items which demonstrated the greatest mean differences between the two conditions (where MS > DP) (*Table 1*), a ten-item total was calculated, adding the scores of items 2,3,4,6,7,8,9,11,12,13 together, and independent samples *t*-tests were performed. Significant effects were found between the DP and MS groups  $N = 92$ ; ( $M_{DP} = 48.70$ ,  $SD = 15.13$ ,  $n = 44$ ), ( $M_{MS} = 55.02$ ,  $SD = 14.03$ ,  $n = 48$ ),  $t(90) = -2.077$ ,  $p = .041$  (two-tailed), showing that those primed with MS had higher scores on the measure than those primed with DP. Reliability analyses were performed for the ten-item total, yielding a Cronbach's Alpha of .794, and an overall  $M$  for the ten items = 52.00,  $SD = 14.83$  (*Table 2*).

Because this analysis revealed that the Cronbach's Alpha could increase to .822 if item 13 was deleted, an independent samples *t*-test was run using a nine-item scale created using the above items, with item 13 being omitted. Results in this case were not

significant  $N = 92$ ; ( $M_{DP} = 43.09$ ,  $SD = 15.50$ ,  $n = 44$ ), ( $M_{MS} = 48.89$ ,  $SD = 13.80$ ,  $n = 48$ ),  $t(90) = -1.899$ ,  $p = .061$  (two-tailed). It was therefore determined that the most effective scale would be the aforementioned ten-item scale, including item 13.

*Order of items.* It can be hypothesized that the items appearing at the beginning of the MS questionnaire can themselves induce MS, thus raising mean scores on the second part of the questionnaire. In order to test this hypothesis, I compared the scores on the items in the first half of the test with items on the second half. In order to control for the natural tendency of individual items to have varying sensitivity to mortality salience, I administered the items on the pilot measure in one of two orders, and randomly assigned participants to one or the other of the two orders. In Form 1, the items appeared in the order of items 1-14, while in Form 2, items 8 to 14 appeared first, followed by items 1-7.

In determining whether individual scores for MS on the 14-item scale increased as participants completed the survey, a within-subjects repeated measures analysis was conducted, comparing the scores of the first half of the questionnaire to those of the second half, with Form as the between-subjects variable. In this case, Half 1 represents the sum of items 1,2,3,4,5,6,7 on Form 1 and items 8,9,10,11,12,13,14 on Form 2, while Half 2 represents items 8,9,10,11,12,13,14 on Form 2 and items 1,2,3,4,5,6,7 on Form 1.

Main effects showed that regardless of the order in which the items were presented, scores increased as participants completed the measure, with Half 1 having lower scores than Half 2  $N = 91$ ; ( $M_{Half1} = 37.41$ ,  $SD = 11.13$ ) ( $M_{Half2} = 39.56$ ,  $SD = 10.43$ )  $F(1,89) = 4.07$ ,  $p = .047$ . There were no significant main effects for Form.

A significant interaction was found between form halves and the order in which the items appeared, in that as participants completed the questionnaire, their scores rose, with those completing items 1-7 first showing the lowest first half scores and the highest second half (8-14) scores. This pattern, however, is qualified by the fact that items 8-14, regardless of order, showed higher levels of MS than items 1-7, and consequently, those completing items 8-14 first did show a lower second half score, however, there is still an overall within-subjects increase between halves: Half 1 ( $M = 37.41$ ,  $SD = 10.66$ ) and Half 2 ( $M = 39.56$ ,  $SD = 10.43$ );  $F(1,89) = 13.14$ ,  $p < .001$  ( $N = 91$ ) (Figure 2).

## Discussion

### *Study 1*

The purpose of Study 1 was to develop and validate a questionnaire designed to measure one's MS. As the above results suggest, there was a significant difference between the total scores for individuals who were primed with DP, compared to those in the MS condition. Additionally, the questionnaire displayed adequate reliability with a Cronbach's Alpha of .794.

It was also hypothesized that explicitly measuring one's MS would in fact prime MS in and of itself, and thus cause MS scores to increase as participants completed the measure. This was confirmed through the use of a within-subjects repeated measures analysis, and demonstrates that our questionnaire is sensitive enough to measure the changes in MS that it induces.

It can be argued, however, that the differing levels of MS found between the first half and second half, and between items 1-7 and 8-14, may affect the sensitivity of the overall scale, since not all items are equally measuring variances in MS. While this is a

valid argument, the limitations put forth by it can be addressed through an examination of the interaction between scale halves and items. While the scores for items on the second half of Form 2 are indeed lower than Half 1, the scores for both items 1-7 and 8-14 do increase when the scores between the first half and second half are compared; that is, the scores for items 1-7 are higher when they are presented second, as are the scores for items 8-14. It should also be noted that these increases are seen across both the MS and DP conditions, indicating that even though participants in the DP condition are not primed with MS, when filling out the questionnaire, their pattern of results does indeed show an increase between halves.

Another issue with the present scale is how it compares to other methods designed to measure MS, such as word-stem completion tasks and lexical-decision tasks. In the word-stem completion tasks commonly employed (i.e. Schimel, Hayes, Williams, & Jahrig, 2007), participants are given a list of 20 word stems which they are asked to complete. Of these 20 word stems, 14 are for neutral words, while six of the stems can either be a neutral word or a death related word (i.e. cof \_ \_ \_ can either be “coffee” or “coffin”). Therefore, while this method is sensitive enough to detect differences between those primed with MS and those primed with a neutral stimuli through a comparison of means, it does not offer the sensitivity required to measure variances in MS on a continuous scale. With lexical decision tasks, the dependent variable is one’s reaction time. While this does enable researchers to once again determine differences between experimental and control groups, these scores are reaction times and not actual aggregate scores of MS, which the present scale is able to determine.

## Study 2

In Study 2, participants read a scenario in which a student's or businessperson's experience on a 9/11 flight attacked by terrorists, or during a painful dental procedure, was described.

*Design.* The study employed a 2 (dental pain vs. 9/11) x 2 (businessperson vs. student) design. Half the participants were randomly assigned to either the dental pain or 9/11 group, and within these conditions, half the participants were randomly assigned to either the businessperson or student groups.

*Participants.* 58 undergraduate Introduction to Psychology students (29 male, 29 female), were recruited through the Psychology Research Experience Program, which allows students to sign up to be participants in research, and received partial course credit for their participation. Participants ranged in age from 17 to 21,  $M = 18.6$ ,  $SD = .80$ , and listed their ethnicity as either White (72.4%), East Indian (8.6%), Asian (6.9%), Other (3.4%), Black (1.7%), Hispanic (1.7%), or did not report ethnicity (5.2%).

*Procedure.* Prior to the actual study, participants first filled out basic demographic (age, gender, ethnicity, religion, faculty, years in Canada) and ideological information online. The reason for the online pre-measures was that we did not want the questionnaires on civil liberties to interfere with the measures for political ideology (though there were 18 participants who did receive the demographic and ideological questionnaires during the actual experiment; for these individuals these measures were included following the experimental materials. No significant differences were found on any of the measures between the two groups).

Participants, either alone or in groups of two to eight, were met by an experimenter who introduced the study to them as an assessment of individuals' perceptions of stressful events. After obtaining informed consent, participants were provided with a booklet containing the study material, and were instructed to go through the material in the order in which it was presented, and to only go forward through the material, in whatever amount of time they required.

*Mortality salience/control inductions.* In order to induce mortality salience (or dental pain salience), participants were given one of four different scenarios to read (see Appendix D-K). The scenarios focused on one of four different protagonists: A businessperson who died on United flight 93, a student who died on United flight 93, or either a university student or a businessperson who went to the dentist for some painful dental work. Care was taken to ensure that throughout the scenario, participants were reminded whether the protagonist was a student or businessperson.

*Filler material.* Consistent with research by Greenberg, Pyszczynski, Solomon, Simon, and Breus (1994), which demonstrated that the effects of mortality salience are most pronounced following a delay where participants are unable to consciously access the mortality induction, following the presentation of the scenarios, participants were given a word-search task in which they were asked to find neutral, television-related words, which took approximately 1-2 minutes to complete (see Appendix M).

#### *Measures*

*Political ideology.* Three scales with a combined total of ten items were administered, and participants responded to the items using a 7-point scale. The first scale asked participants to self-report their political opinions on a scale ranging from

“Left” (1) to “Right” (7) (see Appendix N). The second scale asked participants to indicate their political views on foreign policy issues, economic issues, and social issues, on a scale ranging from “Very Liberal” (1) to “Very Conservative” (7). The third scale asked participants to rate their support on a number of social issues, such as capital punishment, universal health care, funding for the environment and military, on a scale ranging from “Strongly Oppose” (1) to “Strongly Support” (7). The results from the ten items were combined to form one score, which could range from 10 to 70, with higher scores indicating a more conservative orientation, and lower scores indicating a more liberal orientation. Missing scores were replaced with the series mean for each individual item. Scale scores ranged from 17-54, with  $M = 29.46$ ,  $SD = 7.35$ , with a Cronbach Alpha = .773.

*Manipulation check.* As a manipulation check, participants filled out the PANAS (See Appendix L) (Watson, Clark, & Tellegen, 1988), designed to measure the degree of positive and negative affect they felt. The scale listed a total of 20 different positive and negative feelings and emotions, and asked participants to rate the degree to which they felt that way “at the present moment” on a 5-point scale ranging from “very slightly or not at all” (1) to “extremely” (5). The scale yielded an overall alpha of .856, with an alpha of .781 for the positive items and .879 for the negative items.

To ensure that participants knew the occupation of the protagonist (and that it was salient in their minds), they were also asked: Without looking back to the story you just read, what was the occupation of the main character?

*Group identification.* In order to determine the degree to which participants identified with the protagonist, they were asked to rate on a 9-point Likert scale ranging

from “strongly disagree” (1) to “strongly agree” (9) the degree to which they felt they identified with the protagonist, the ease with which they identified with the protagonist, and how similar and dissimilar they felt to the protagonist (see Appendix P). The four items for the Group Identification Questionnaire were totaled together, and the scale produced a mean score of 21.45,  $SD = 8.08$ , with a range between 6-34 ( $N = 57$ ). A reliability analysis was performed, and the scale produced a Cronbach Alpha of .926.

*Restrictions on civil liberties.* Participants in all conditions were asked to rate on a 9-point scale, ranging from “not at all willing” to “extremely willing”, the degree to which they were willing to endorse practices which limited individual and civil liberties in the name of fighting terror (see Appendix Q). A six-item total for the Civil Liberties Questionnaire was computed by adding items 1,2,3,4,5, and 6. This produced a scale mean of 26.44,  $SD = 9.06$  ( $N = 58$ ) and alpha of .732. Scores on this scale ranged from 9 to 44.

*Mortality salience.* Participants in all conditions filled out our ten-item questionnaire designed to measure mortality salience. The ten-item total produced a mean of 48.51,  $SD = 11.68$ , and alpha of .670 (see Appendix O).

*Debriefing.* Participants were thanked for their participation and debriefed (see Appendix C).

To summarize, the following is the outline of the presentation of materials and procedures which were employed in Study 2:

1. Political ideology (collected during mass testing)
2. Demographic information

3. Mortality salience/control induction – either one of two experimental scenarios, or one of two dental pain scenarios
4. Filler material
5. Manipulation check – PANAS
6. Group identification
7. Restrictions on civil liberties\*
8. Mortality salience\*
9. Debriefing

\* Restrictions on civil liberties and Mortality Salience questionnaires were counterbalanced. No significant order effects were found.

## Results

### *Study 2*

*Manipulation checks.* Participants were asked, without looking back, to recall the occupation of the main character in the story. Of the 58 participants, five did not correctly identify the occupation or left the question blank, indicating that 91% of participants were able to correctly remember whether they were reading about a student or a business-person. Because excluding these five participants did not affect overall results, they remained in the final analyses.

*PANAS.* It was hypothesized that there would be no differences on the PANAS between participants in the DP and 9/11 conditions. Scores for the positive and negative words on the PANAS were totalled separately, and independent samples *t*-tests were performed on the two cumulative scores for each condition, and for the scale as a whole. No significant results were found for either condition or the scale overall, though results

did approach significance for the negative words, between the DP and 9/11 conditions ( $M_{DP} = 14.38$ ,  $SD = 5.22$ ;  $M_{9/11} = 17.31$ ,  $SD = 6.87$ ,  $t(56) = -1.82$ ,  $p = .073$ ). These results, and results for the positive condition ( $M_{DP} = 27.03$ ,  $SD = 5.43$ ;  $M_{9/11} = 26.48$ ,  $SD = 6.79$ ,  $t(56) = .342$ ,  $p = .734$ ) and the scale overall ( $M_{DP} = 41.41$ ,  $SD = 8.01$ ;  $M_{9/11} = 43.79$ ,  $SD = 11.89$ ,  $t(56) = -.894$ ,  $p = .375$ ) indicate that differences observed in the subsequent measures were not as a result of differences in positive and negative affect.

*Group Identification.* To test the hypothesis that participants would identify more with the student than the businessperson across all conditions, a 2 (DP vs. 9/11) x 2 (business-person vs. student) ANOVA was performed. Main effects for identification were found in that participants identified significantly more with the student than the business-person:  $F(1,53) = 5.58$ ,  $p = .022$  (Table 3). Main effects for the DP/9/11 manipulation were non-significant; DP vs. 9/11  $F(1,49) = .176$ ,  $p = .677$ , nor were there any interaction effects.

*Mortality Salience Questionnaire.* MS was calculated by totalling the ten items from the MS questionnaire to form a single total score. Whereas mean scores were higher in the 9/11 conditions than the dental pain conditions, these differences were not significant. A 2 (DP vs. 9/11) x 2 (business-person vs. student) analysis of variance showed a non-significant main effect for 9/11/DP,  $F(1,54) = 1.96$ ,  $p = .167$  (Table 3).

*Hypothesis 1.* The above ANOVA was also used to test *hypothesis 1*, which hypothesized that the greater one identified with the victims of a terrorist attack, the greater one's mortality salience would be. The results showed no significant effects relating to identification with the protagonist in the vignette; the main effect for the

student/business-person condition was non-significant,  $F(1,54) = 2.88$ ,  $p = .096$ , as was the interaction between the two conditions,  $F(1,54) = .397$ ,  $p = .531$ .

Additionally, *hypothesis 1* was tested by correlating MS and identification with the victim in the 9/11 condition, and the correlation approached significance ( $r = .350$ ,  $p = .063$ ,  $N = 29$ ), suggesting that the more one identified with the victim, the higher their MS scores were. When this same analysis was performed in the DP condition, significant results were not found ( $r = .077$ ,  $p = .699$ ,  $N = 28$ ).

*Hypothesis 2.* It was hypothesized that the greater one's mortality salience was, the more likely one would be to support restrictions on civil liberties. To test this hypothesis, a 2 (DP vs. 9/11) x 2 (Businessperson vs. Student) ANOVA was performed on the Civil Liberties Questionnaire scores. No significant main effects or interactions were found, indicating that, counter to our hypotheses, neither identifying with the victim nor one's MS affects the degree to which one supported restricting civil liberties in fighting terrorism: DP vs. 9/11  $F(1,54) = 1.37$ ,  $p = .248$ ; BP vs. S  $F(1,54) = .046$ ,  $p = .831$  (*Table 3*).

Similar null effects were obtained by correlating scores on the Civil Liberties Questionnaire with scores on the MS questionnaire in the 9/11 condition ( $r = -.001$ ,  $p = .997$ ,  $N = 29$ ). Correlations between these two variables in the other conditions produced similar results.

*Hypothesis 3.* The present study hypothesized that the more one identified with the victim (in the 9/11, but not the dental pain condition), the more likely one would be to support restrictions on civil liberties. This hypothesis was tested with the above 2 (DP

vs. 9/11) x 2 (Businessperson vs. Student) ANOVA on the Civil Liberties Questionnaire. As reported, neither significant main effects nor an interaction were found.

To determine whether ideology played a role in affecting one's support for restricting civil liberties, a 2 (DP vs. 9/11) x 2 (Businessperson vs. Student) x 2 (left wing vs. right wing) ANOVA was performed on the Civil Liberties Questionnaire scores. Main effects for ideology were not found; left wing vs. right wing  $F(1,50) = 2.11$ ,  $p = .152$ , nor were there any significant interactions. However, when a multiple regression was performed, with CLQ scores as the dependent variables, and condition (DP vs. 9/11 and BP vs. Student) and ideology as the predictor variables, significant results were found for ideology  $\beta = .507$ ,  $t(3, 54) = 4.29$ ,  $p < .001$ ,  $N = 58$ , indicating that the more right wing one is, the more likely they are to support restricting civil liberties.

Correlations between scores on the Group Identification Questionnaire and the Civil Liberties Questionnaire were performed in all conditions; however, no significant results were found, indicating, counter to our hypothesis, that there is no relationship between the degree to which one identifies with the victim of a terrorist attack, and one's willingness to restrict civil liberties in fighting terror. Additionally, a mediational analysis was performed between identification, MS, and civil liberties with MS as the mediator; however, significant effects were not found.

Overall, there was a positive correlation between ideology and support for restricting civil liberties ( $r = .492$ ,  $p < .001$ ,  $N = 58$ ), in that those with higher scores for political ideology (indicating an increased right wing ideology) were more supportive of restricting civil liberties. This correlation was highest in the DP/BP condition ( $r = .816$ ,  $p = .001$ ,  $N = 13$ ), and lowest in the 9/11/Student condition ( $r = .306$ ,  $p = .267$ ,  $N = 15$ ).

Additionally, there was a significant negative relationship between ideology and identifying with the protagonist in the dental pain condition, but not in the 9/11 condition, in that those with higher right wing ideology scores identified less with the protagonist in the dental chair, while there was no relationship between identification and ideology in the 9/11 condition ( $r_{DP} = -.404, p = .033, N = 28; r_{911} = -.012, p = .959, N = 29$ ) (see *Tables 4-12*).

### Discussion

The main goals of the present studies were to develop a questionnaire to measure MS and to determine the conditions under which people would be supportive of restricting civil liberties in fighting the “War on Terror”. It was hypothesized that the degree to which one identified with the victims of a terrorist attack would relate to one’s MS, which, in turn, would correspond with one’s willingness to support restrictions on civil liberties.

While this full mediational model was not supported, the present studies did indeed expand the body of knowledge regarding MS, group identity, civil liberties, and ideology.

First, Study 1 was successful in developing and piloting a questionnaire to measure MS. In past studies, the effects of MS have been measured indirectly, either by measuring death thought accessibility through the use of word-stem completion tasks and lexical decision tasks (Schimmel, Hayes, Williams, & Jahrig, 2007), or by measuring a known effect of MS priming, such as the degree to which participants would support ingroup values or derogate outgroup values after being primed with MS (Halloran &

Kashima, 2004). Study 1 successfully developed a scale which could measure the effects of MS as a continuous variable.

Additionally, Study 2 was able to successfully manipulate the degree to which one identified with the protagonist, whereby participants identified more with the student than the business-person across all conditions.

Study 2 also expanded on the relationship between MS and group identification, in that a positive correlation emerged between the degree to which one identified with the victim of a terrorist attack, and one's MS, where the more one identified with the victim, the higher their MS was. These results confirm that participants indeed experienced differing levels of MS based on their identification with the victim, given that participants identified more with the student who died compared with the businessperson who died.

Study 2, however, was not able to fully replicate the results obtained in Study 1 on the MS scale. There are a number of possible reasons for this, foremost being the interference of the other measures which appeared after the MS induction but prior to the MS questionnaire. Additional explanations can include the length of the scenario, in that participants may have had the opportunity to mitigate MS as they read their way through the scenarios, and possibly, the overall sensitivity of the MS measure in an applied setting. Whereas results from Study 1 were obtained under strict time guidelines, there was no specific regulation of the time-span in Study 2 between the IV and DV.

Another main hypothesis of Study 2 was that people's willingness to limit civil liberties in fighting terror would be affected by factors including identification and MS. That is, the closer a terrorist attack "hit home", the more willing one would be to give up certain rights in order to protect the collective good. Although the results of Study 2 did

not confirm this hypothesis, they did provide a window into the underlying factors that do determine such a balance, namely ideology. The strong and positive correlation between ideology and restricting civil liberties in fighting terror, and the fact that none of the other manipulations affected one's willingness to restrict civil liberties suggest that, like ideology, this particular dependent variable may be somewhat immutable.

There are a number of limitations to the present studies, as well as avenues for future research. One main limitation in the design of Study 2 was that it did not allow for the full determination of the relationship between group identification and MS, in that the MS questionnaire was presented at the end of the study package, counterbalanced with the civil liberties questionnaire. A future iteration of Study 2 will therefore present the group identification measure and the MS questionnaire in a counterbalanced manner directly following the MS/DP manipulation and filler material. This way, it will be possible to measure the effects of the scenarios on MS and group identification, and whether there is an inverse relationship between MS and group identity, whereby increasing one's identification can in fact reduce MS. The logic behind this hypothesis stems from previous research demonstrating that ingroup identification was enhanced under conditions of MS (Castano et al., 2002). In this, and studies like it, however, MS has always been an independent variable, and group identification the dependent variable. Consequently, when primed with MS, individuals would try to mitigate the effects of MS through ingroup identification (as per the anxiety-buffering and self-esteem hypotheses of TMT). In Study 2, MS and identification were primed concurrently, and measures were taken first for identification, followed by MS. As such, participants were given the opportunity to actively think about the degree to which they identified with the

protagonist prior to completing measures on MS, while the opposite process, actively thinking about (and thus mitigating) MS prior to filling out a measure on identification, was not tested. It may be entirely possible that these anxiety-buffering and self-esteem effects of TMT can occur regardless of whether group identification is mitigating MS, or whether bringing MS to conscious awareness (as would be done when filling out an explicit MS measure) can mitigate the needs to identify with one's ingroup. In other words, while we know that priming MS affects identification, the question still remains as to whether priming identification can affect MS. While Study 2 did find a positive correlation between identification and MS, the order in which the items were presented did not allow this particular hypothesis to be tested.

This idea, however, is confounded by the ways in which MS and identification are affected by the target of identification (i.e. identifying with an individual versus a group). Previous research has found that, when primed with MS, individuals will show higher levels of identification with their ingroup (Castano et al., 2002), whereas they would distance themselves from a threatened *individual* member of their ingroup (Arndt, et al., 2002). In the present study, participants were asked to identify with a threatened individual, and results suggested that a form of distancing took place. It was found that a non-significant relationship existed in that participants identified less with the student who died in 9/11 compared to the student at the dentist, while showing greater MS when reading about the business-person as opposed to the student in the 9/11 condition. This raises the question as to whether participants engaged in a form of psychological distancing, similar to that observed in Arndt et al. (2002), since they were asked the

degree to which they identified with the protagonist as an individual, as opposed to the degree to which they identified with the protagonists' group.

Additionally, in further refining the scoring of the MS scale, it may be beneficial to alter the criteria used. In Study 1, the scale sought to assess "the degree to which one was aware of his or her own mortality". Since MS, however, involves the accessibility of death-related thoughts, the above criteria may not be the most suitable method for assessing MS. This limitation was discovered through an examination of the items originally dropped from the 14-item pilot, in that most of them were the reverse-scored items. In questioning why the reverse-scored items still had higher raw scores in the MS condition (prior to scores being reversed), it could be hypothesized that in measuring accessibility, whether the death-related thought had a positive or negative valence, it was still a death-related thought, and thus, had a higher level of accessibility<sup>1</sup>.

Another limitation of the present research is the exclusion of factors other than the awareness of death in elucidating the effects of MS and subsequent approaches for fighting terror. Indeed, as the aforementioned research by Schimel et al. (2007) demonstrated, worldview threat increased death-thought accessibility through the use of measures such as word-stem completion tasks and lexical decision tasks. Building on this research, an iteration of Study 2 could, instead of priming MS, prime worldview threat, and measure whether this affects one's willingness to restrict civil liberties. Likewise, replicating Schimel et al.'s (2007) results using the Mortality Salience

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<sup>1</sup> When the raw scores on the 14-item scale were compared across DP and MS conditions, prior to reversing the reverse-scored items, a significant effect was found which did not occur following the reverse-coding  $N = 92$ ; ( $M_{DP} = 64.22$ ,  $SD = 12.75$ ,  $n = 44$ ), ( $M_{MS} = 69.72$ ,  $SD = 11.97$ ,  $n = 47$ ),  $t(89) = -2.12$ ,  $p = .037$  (two-tailed).

Questionnaire as a dependent variable could also provide an effective means for further validating the results of Study 1.

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Table 1

*Item mean scores among condition*

Item	Condition	N	M	SD
1. I am not too concerned about the thought of dying. (R)	DP	48	5.39	2.62
	MS	50	4.86	2.36
2. I worry that I may die before my time.	DP	47	4.83	2.46
	MS	50	5.80	2.18
3. I sometimes think about how I will die.	DP	48	4.96	2.72
	MS	50	5.32	2.54
4. I am concerned about what will happen to me after I die.	DP	48	4.67	2.90
	MS	49	4.82	2.66
5. I would feel calm if I found out I was going to die soon. (R)	DP	48	7.64	1.78
	MS	49	7.45	2.19

6. I am afraid there is no afterlife.	DP	46	4.22	2.59
	MS	49	4.43	2.95
7. I sometimes think about what my funeral will be like.	DP	48	3.88	2.85
	MS	50	5.12	2.37
8. I feel comfortable knowing that my own death is inevitable. (R)	DP	46	4.47	2.67
	MS	50	4.90	2.62
9. I am not fearful about the thought of my own death. (R)	DP	48	5.00	2.64
	MS	50	5.16	2.60
10. I am worried about what will happen to me after I die.	DP	47	4.74	2.87
	MS	50	4.74	2.74

11. I worry about dying and not being able to accomplish the things I want to in my life.	DP	48	5.63	2.33
12. I often think about how my friends and family would react to my death.	MS	50	6.36	2.26
13. I try to live my life to the fullest, knowing I can die anytime.	DP	48	5.92	2.55
14. I feel I have done everything in my life that I've wanted to accomplish. (R)	MS	50	6.56	2.02
	DP	48	5.69	1.92
	MS	50	6.08	1.72
	DP	48	7.66	1.53
	MS	50	7.42	1.95

Table 2

*Item-total statistics – Ten-item MS scale*

Item	Scale Mean if Item Deleted	Item-Total Correlation	Cronbach's $\alpha$ if Item Deleted
2. I worry that I may die before my time.	46.76	.502	.772
3. I sometimes think about how I will die.	46.84	.485	.773
4. I am concerned about what will happen to me after I die.	47.23	.661	.749
6. I am afraid there is no afterlife.	47.68	.557	.761
7. I sometimes think about what my funeral will be like.	47.36	.442	.779
8. I feel comfortable knowing that my own death is inevitable. (R)	47.27	.472	.775
9. I am not fearful about the thought of my own death. (R)	46.93	.420	.781

11. I worry about dying and not being able to accomplish the things I want to in my life.	46.05	.573	.764
12. I often think about how my friends and family would react to my death.	45.71	.535	.768
13. I try to live my life to the fullest, knowing I can die anytime.	46.11	-.073	.822

Table 3

*Means and SD's for Identification, MS, and Support for Restrictions on Civil Liberties*

	Dental Pain			9/11
	Business Person	Student	Student	
Identification with	18.38 (9.51)	25.4 (6.72)	19.35 (7.26)	22.13 (7.68)
Main Character				
Mortality Salience	48.15 (10.90)	44.93 (11.90)	54.28 (12.16)	47.26 (10.72)
Support for	23.84 (8.92)	26.18 (9.70)	29.50 (8.25)	26.13 (9.30)
Restricting Civil Liberties				

Table 4

*Correlations Between Ideology, Identification, Mortality Salience and Restricting Civil Liberties*

	All Conditions			
	1	2	3	4
1. Ideology	-	-.23 (57)	.07 (57)	.49** (58)
2. Identification		-	.19 (57)	-.05 (57)
3. Mortality Salience			-	-.05 (58)
4. Civil Liberties				-

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

*N* in parentheses beside correlation

Table 5

*Correlations Between Ideology, Identification, Mortality Salience and Restricting Civil Liberties*

	Dental Pain Condition			
	1	2	3	4
1. Ideology	-	-.40* (28)	.20 (29)	.59** (29)
2. Identification		-	.08 (28)	-.08 (28)
3. Mortality Salience			-	.05 (29)
4. Civil Liberties				-

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

*N* in parentheses beside correlation

Table 6

*Correlations Between Ideology, Identification, Mortality Salience and Restricting Civil Liberties*

	9/11 Condition			
	1	2	3	4
1. Ideology	-	-.12 (29)	-.06 (29)	.39* (29)
2. Identification		-	.35 (29)	.02 (29)
3. Mortality Salience			-	.00 (29)
4. Civil Liberties				-

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

*N* in parentheses beside correlation

Table 7

*Correlations Between Ideology, Identification, Mortality Salience and Restricting Civil Liberties*

	Business-person Condition			
	1	2	3	4
1. Ideology	-	-.14 (18)	.01 (27)	.61** (27)
2. Identification		-	.28 (27)	.10 (27)
3. Mortality Salience			-	.12 (27)
4. Civil Liberties				-

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

*N* in parentheses beside correlation

Table 8

*Correlations Between Ideology, Identification, Mortality Saliency and Restricting Civil Liberties*

	Student Condition			
	1	2	3	4
1. Ideology	-	-.28 (30)	.05 (31)	.38* (31)
2. Identification		-	.27 (30)	-.19 (30)
3. Mortality Saliency			-	-.02 (31)
4. Civil Liberties				-

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

*N* in parentheses beside correlation

Table 9

*Correlations Between Ideology, Identification, Mortality Saliency and Restricting Civil Liberties*

	Dental Pain/Business-person Condition			
	1	2	3	4
1. Ideology	-	-.29 (13)	.11 (13)	.82** (13)
2. Identification		-	.12 (13)	.18 (13)
3. Mortality Saliency			-	.14 (13)
4. Civil Liberties				-

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

*N* in parentheses beside correlation

Table 10

*Correlations Between Ideology, Identification, Mortality Saliency and Restricting Civil Liberties*

	Dental Pain/Student Condition			
	1	2	3	4
1. Ideology	-	-.62* (15)	.28 (16)	.45 (16)
2. Identification		-	.14 (15)	-.59* (15)
3. Mortality Saliency			-	.03 (16)
4. Civil Liberties				-

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

*N* in parentheses beside correlation

Table 11

*Correlations Between Ideology, Identification, Mortality Saliency and Restricting Civil Liberties*

	911/Business-person Condition			
	1	2	3	4
1. Ideology	-	.12 (14)	-.08 (14)	.43 (14)
2. Identification		-	.45 (14)	-.04 (14)
3. Mortality Saliency			-	-.05 (14)
4. Civil Liberties				-

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

*N* in parentheses beside correlation

Table 12

*Correlations Between Ideology, Identification, Mortality Saliience and Restricting Civil Liberties*

911/Student Condition

	1	2	3	4
1. Ideology	-	-.07 (15)	-.21 (15)	.31 (15)
2. Identification		-	.42 (15)	.13 (15)
3. Mortality Saliience			-	-.08 (15)
4. Civil Liberties				-

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

*N* in parentheses beside correlation

Figure 1

*Overview of the hypothesized model*

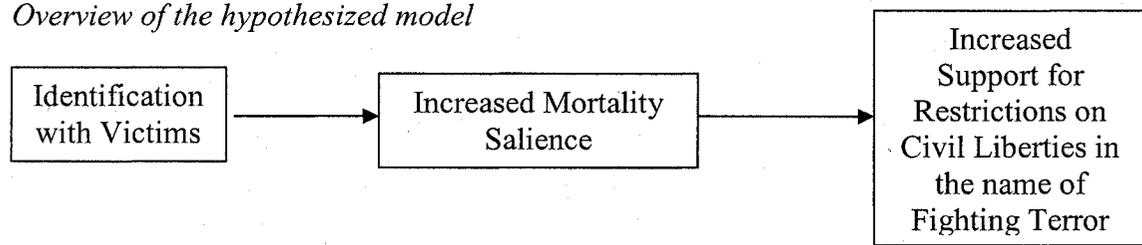
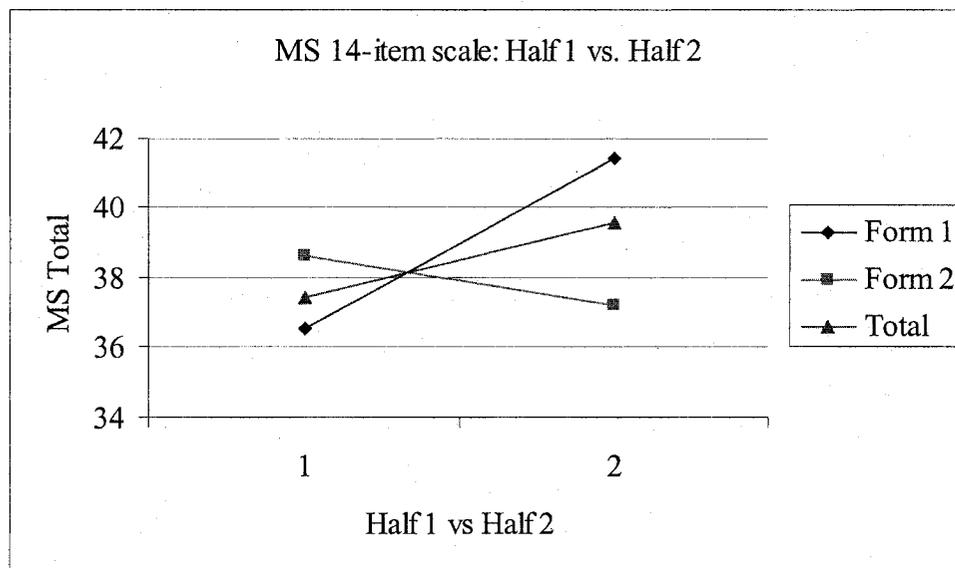


Figure 2

*Effects of the Order of Items on the MS Questionnaire*



## Appendix A

## Study 2 – Online Pre-measures Consent Form

WILFRID LAURIER UNIVERSITY  
INFORMED CONSENT STATEMENT  
PROJECT: Perceptions of Stressful Events  
INVESTIGATORS: Dr. S. Mark Pancer, Professor, Department of Psychology &  
Enoch S. Landau, Graduate Student, Department of Psychology

You are invited to participate in this research study. The purpose of this measure is to collect demographic and political information, that will be used as part of the main study you are signing up for. You will be asked to fill out two online questionnaires on demographics and political ideology.

**INFORMATION**

Participation in this study involves filling out pre-measures on demographics and political ideology, which will help us in analyzing the data in our main study. The following questionnaires will assess your opinions and beliefs about these constructs. A more detailed explanation of the purpose will be provided at the end of the main study. This session is expected to last approximately 5 minutes. Data is expected to be collected from 160 participants.

**RISKS**

There are no major risks with providing your demographic and political orientation, although some people may feel uncomfortable doing so. Keep in mind that you can withdraw from the study at any time, and you are free to omit a response to any question you prefer not to answer.

**BENEFITS**

You will have the opportunity to observe how social psychologists conduct survey research to address psychological issues, thereby enhancing your understanding of research methods. You will also be contributing to the research literature on students' political ideologies.

**CONFIDENTIALITY**

Your responses will be completely confidential and anonymous. We will require your student number so that we can match up your responses from this pre-measure with your responses from the main study. Once we have matched up the information, your results will be assigned a code number, and we will discard the page with your student number on it. Furthermore, the data set will be stored on computers in a locked research room accessible only to authorized researchers, and will be destroyed after 7 years. Only Dr. Mark Pancer and Enoch Landau will have access to the data. Research findings will be reported in Enoch Landau's Master's Thesis, and may be presented at professional

conferences or reported in academic publications, but no individual responses will be reported. Only aggregated data (group means or correlations) will be presented.

#### COMPENSATION

For filling out the pre-measures individuals will receive .025 (one quarter), PREP credits toward their PS100 requirement. For participating in the main study, individuals will receive 0.5 (one half) PREP credits toward their PS100 requirement. Participants who choose to withdraw from the study prior to its completion or ask to have their responses deleted will still receive the credit. Once all the data have been completed, none of it can be withdrawn because it will be anonymous. As an alternative for gaining research credits, you could complete a review of a research article. See the Psychology Main Office for further details.

#### CONTACT

If you have questions or comments at any time about the study or its procedure, you may contact the researchers by email; Enoch Landau, at land1574@wlu.ca, or Dr. Mark Pancer at mpancer@wlu.ca. This project has been reviewed and approved by the University Research Ethics Board. However, if you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact Dr. Bill Marr, Chair, University Research Ethics Board, Wilfrid Laurier University, (519) 884-0710, ext. 2468.

#### FEEDBACK

If you wish, following the study, you may provide your email address to the researchers so that they can send you an email outlining the study's findings. Email addresses will be kept separate from, and will not be linked to, survey responses. We expect to have final results by June 2007.

#### PARTICIPATION

Your participation in this study is strictly voluntary. You may decline to participate without penalty. If you decide to participate, you are free to withdraw from the study at any time without penalty or the loss of the experimental credit. You are also free to omit the answer to any question you prefer to not to answer. If you withdraw from the study before data collection is completed, your data will be returned to you or destroyed.

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#### CONSENT

I have read and understand the above information and I agree to participate in this study.

---

Signature of Participant

---

Signature of Researcher

## Appendix B

### Study 2 – Consent Form

#### WILFRID LAURIER UNIVERSITY INFORMED CONSENT STATEMENT

PROJECT: Perceptions of Stressful Events

INVESTIGATORS: Dr. S. Mark Pancer, Professor, Department of Psychology &  
Enoch S. Landau, Graduate Student, Department of Psychology

You are invited to participate in this research study. The purpose of this study is to investigate people's perceptions of stressful events. You will be asked to read about a stressful event, followed by word exercises, and questionnaires. This research cannot be fully explained at this time, but a more detailed explanation of the purpose will be provided at the end of this session.

#### INFORMATION

Participation in this study involves reading about a stressful event, and completing a series of questionnaires. As people's reactions to various stressful events differ, you will be asked to read about a stressful event, followed by word exercises, and a questionnaire. The following questionnaires will assess your opinions and beliefs about these events. A more detailed explanation of the purpose will be provided at the end of this session. The session is expected to last approximately 30 min. Data is expected to be collected from 160 participants.

#### RISKS

Reading about stressful events could induce a range of emotions in some people. Some of the stressful events you will read about in this study may be negative. Keep in mind that you can withdraw from the study at any time, and you are free to omit a response to any question you prefer not to answer. Also, if you experience any emotional discomfort through your participation in this study, you may wish to consult Counselling Services at Laurier. Their contact information is as follows:

Counselling Services  
2nd Floor, Student Services Building  
(519) 884-0710 ext. 2338  
22couns@wlu.ca

#### BENEFITS

You will have the opportunity to observe how social psychologists conduct survey research to address psychological issues, thereby enhancing your understanding of research methods. You will also be contributing to the research literature on how people think and feel about stressful events.

#### CONFIDENTIALITY

Your responses will be completely confidential and anonymous. We will require your

student number so that we can match up your responses from Mass Testing with your responses from this study by asking you to write your student number on a page at the end of the questionnaire. Once we have matched up the information, your results will be assigned a code number, and we will discard the page with your student number on it. Furthermore, the data set will be stored on computers in a locked research room accessible only to authorized researchers, and will be destroyed after 7 years. Only Dr. Mark Pancer and Enoch Landau will have access to the data. Research findings will be reported in Enoch Landau's Master's Thesis, and may be presented at professional conferences or reported in academic publications, but no individual responses will be reported. Only aggregated data (group means or correlations) will be presented. Moreover, no quotations will be used in any research reports.

#### COMPENSATION

For participating in this study, individuals will receive 0.5 (one half) PREP credits toward their PS100 requirement. Participants who choose to withdraw from the study prior to its completion or ask to have their responses deleted will still receive the credit. Once all the data have been completed, none of it can be withdrawn because it will be anonymous. As an alternative for gaining research credits, you could complete a review of a research article. See the Psychology Main Office for further details.

#### CONTACT

If you have questions or comments at any time about the study or its procedure, you may contact the researchers by email; Enoch Landau, at [land1574@wlu.ca](mailto:land1574@wlu.ca), or Dr. Mark Pancer at [mpancer@wlu.ca](mailto:mpancer@wlu.ca). This project has been reviewed and approved by the University Research Ethics Board. However, if you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact Dr. Bill Marr, Chair, University Research Ethics Board, Wilfrid Laurier University, (519) 884-0710, ext. 2468.

#### FEEDBACK

If you wish, following the study, you may provide your email address to the researchers so that they can send you an email outlining the study's findings. Email addresses will be kept separate from, and will not be linked to, survey responses. We expect to have final results by June 2007.

#### PARTICIPATION

Your participation in this study is strictly voluntary. You may decline to participate without penalty. If you decide to participate, you are free to withdraw from the study at any time without penalty or the loss of the experimental credit. You are also free to omit the answer to any question you prefer to not to answer. If you withdraw from the study before data collection is completed, your data will be returned to you or destroyed.

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CONSENT

I have read and understand the above information and I agree to participate in this study.

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Signature of Participant

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Signature of Researcher

Appendix C  
Study 2 Debrief Form  
WILFRID LAURIER UNIVERSITY  
PROJECT SUMMARY

PROJECT: Perceptions of Stressful Events  
INVESTIGATORS: Dr. S. Mark Pancer, Professor, Department of Psychology &  
Enoch S. Landau, Graduate Student, Department of Psychology

Thank you for taking part in this study! Your participation is sincerely appreciated, and we hope that you have found your experience to be interesting. The purpose of this study was to determine the conditions under which individuals are more or less likely to support restrictions to civil liberties in fighting the "War on Terror".

In order to do this, it was first necessary to have participants read about a stressful event which either described someone perishing in the attacks of 9/11, or enduring a stressful, non-death related event (dental work). The people in the scenarios were either a student or a businessperson.

The scenarios which you read were entirely fictitious; that is, while they were based on true events, the people described in them were not real.

It was hypothesized that participants who were asked to read about the individual perishing in the 9/11 attacks would be more likely to support restrictions on civil liberties than those who read about the dental work, especially when they read about the student, as opposed to the businessperson. The reason for this, we hypothesize, is that those who identify with the victims of a terrorist attack would have a heightened sense of their own mortality, and thus, would want to do everything necessary to prevent future terrorist attacks.

Given the nature of the stressful events you were asked to read about, it is possible that you may feel negative emotions, especially if you have recently experienced a similar event in your life (i.e., the recent death of a close friend or loved one). If you have experienced any emotional discomfort through your participation in this study, you may wish to consult Counselling Services at Laurier. Their contact information is as follows:

Counselling Services  
2nd Floor, Student Services Building  
(519) 884-0710 ext. 2338  
22couns@wlu.ca

You may also wish to consult your PS100 text sections on stress and group conformity for more information on the topics begin researched in this study.

A summary of the results from this study will be emailed to interested participants by June, 2007. However, if you have any questions or comments about the study or its procedure, you may contact the researchers by email; Enoch Landau, at [land1574@wlu.ca](mailto:land1574@wlu.ca), or Dr. Mark Pancer at [mpancer@wlu.ca](mailto:mpancer@wlu.ca).

This project has been reviewed and approved by the University Research Ethics Board. However, if you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact Dr. Bill Marr, Chair, University Research Ethics Board, Wilfrid Laurier University, (519) 884-0710, ext. 2468.

Please do not discuss the purposes or methodologies of this study with other students, since they may participate in it at a future date, and prior knowledge of a study's hypotheses can affect the study's validity.

Once again, we thank you very much for your participation.

## Appendix D

## Scenarios - Dental Pain – Business-person - Female

Jane had not been to the dentist in the past several years. Now that she was working for a Fortune 500 company and had found out that she had a dental plan as part of her corporate benefits, she felt that the time was right to visit the dentist. And besides, her nagging toothache was something that finally had to be addressed.

Jane made an appointment with the dentist recommended by the Employee Benefits department at her company, and when the day came to visit the dentist, Jane showed up 10 minutes early.

Jane was never afraid of dental work; rather, the reason she had not gone in such a long time was because of a lack of dental insurance. Having this dental plan, Jane thought, was a great thing.

At the dentist, the appointment began with the hygienist asking Jane some basic questions about health, whether she had any problems with her teeth, and the last time she had visited the dentist. “Five years,” Jane said, to the shock of the hygienist.

“Well, I bet that explains your toothache,” the hygienist laughingly replied, and continued, “Now, we’re going to take some x-rays to see what may be causing it.”

About ten minutes later, the dentist, Dr. Adams, came in holding Jane’s x-rays, with a sympathetic look on his face. “You should have had this tooth treated three years ago,” he said. “Now, it looks like you’re going to need quite the filling.” “But that’s not a problem,” Dr. Adams continued, “We can do it right now.”

Jane had never had a cavity before, and really didn't know what to expect, but Dr. Adams seemed very nice, and even though Jane thought he looked to be a little too young to be a dentist, he did have a lot of diplomas hanging on the wall.

"Now I'm first going to spray on some topical anaesthetic," Dr. Adams said. "It's like the stuff you spray on a cut to make it feel numb, but for your mouth. This will make it less painful when I inject the freezing."

As the spray took effect, Jane looked over, and noticed Dr. Adams preparing a very long and curved needle. "Is that for me?" Jane asked, a little afraid. "Yes" Dr. Adams replied, "Because the tooth we need to work on is in the upper back corner of your mouth, I'll need a very long needle to deliver the anaesthetic. Now you're going to feel a sharp pinch, but I'll inject the freezing very slowly; it's less painful that way."

"Ouch!!!" screamed Jane as Dr. Adams began the injection, causing Dr. Adams to stop for a second and say, "Now Jane, I know this part can hurt quite a bit, but just try to relax, and it'll be over in about a minute." While a minute does not normally seem like a long time, to Jane, it felt like an eternity, especially since she was able to feel every small shake in Dr. Adams' hand as the needle slowly went deeper and deeper into the roof of her mouth, and because of the burning pressure the anaesthetic leaving the needle caused in her mouth. As the pain built up, and Jane thought she could take no more, Dr. Adams calmly said "hang in there, you're doing a great job. We're almost halfway there." All Jane could do was lie there, clenching every muscle in her body until she thought she would pass out. And then it was over. The needle was done.

"Now we'll give the freezing a few minutes to kick in," Dr. Adams said, as he began to fiddle with his equipment. As he was doing so, he started to make small talk.

“We get a lot of patients from the company you work for. Usually we get a lot of executives like yourself. I thought about a career like yours in the business world, but decided dentistry was more my calling.

Because Jane was lying down, she was not able to see entirely what it was that Dr. Adams was doing, which left her feeling a little helpless. The uncomfortable silence was suddenly broken by the loud, high-pitched shrieking whine of Dr. Adams testing the drill he would be using, causing Jane to jump, shudder, and feel a cold tingle down her spine.

“While you won’t feel any pain” Dr. Adams went on to say, “You will feel the vibrations of the drill in your mouth.”

And so it began. The combined sound, vibration, and pain of the drill seemed unceasing. While Jane appeared to be in severe pain, all Dr. Adams kept saying was “hang in there, Jane, you’re doing great.” Jane thought about asking for more freezing, but thought back to the long curved needle, and just figured that it wasn’t worth the added pain. In fact, Jane thought to herself that Dr. Adams didn’t even have any concept of what pain was. With the hole drilled out, and the nerves of Jane’s tooth exposed, Dr. Adams said, “now I just need to see how deep this cavity is, so you may feel a little discomfort.” And with that, he poked a long metal rod into Jane’s tooth, causing a sharp pain that was no longer limited to her tooth, but seemed to travel all through her body, causing her to jump. “Good,” Dr. Adams said, “Now we can apply the filling.”

As he was applying the filling, Dr. Adams kept talking about the business world, trying to impress Jane with all he knew about the company she worked for. For her part, Jane just wished that Dr. Adams would stop talking about mergers and acquisitions, and concentrate more on finishing up with her filling.

After 15 minutes more of lying helplessly in the chair, and in a great deal of pain, Dr. Adams told Jane that he was just about finished. "Don't eat for the next few hours, and you may feel some mild discomfort as the anaesthetic wears off." Jane knew, that with Dr. Adams, there was no such thing as 'mild' discomfort. It was gonna hurt. "Oh, and one last thing" Dr. Adams said to Jane as she was leaving, "Come back in a few weeks so that I can have a look to see how the tooth is healing. If it's not looking good, you may need to have root canal, and unlike getting a filling, it can be quite painful."

## Appendix E

### Dental Pain – Business-person - Male

John had not been to the dentist in the past several years. Now that he was working for a Fortune 500 company and had found out that he had a dental plan as part of his corporate benefits, he felt that the time was right to visit the dentist. And besides, his nagging toothache was something that finally had to be addressed.

John made an appointment with the dentist recommended by the Employee Benefits department at his company, and when the day came to visit the dentist, John showed up 10 minutes early.

John was never afraid of dental work; rather, the reason he had not gone in such a long time was because of a lack of dental insurance. Having this dental plan, John thought, was a great thing.

At the dentist, the appointment began with the hygienist asking John some basic questions about health, whether he had any problems with his teeth, and the last time he had visited the dentist. “Five years,” John said, to the shock of the hygienist.

“Well, I bet that explains your toothache,” the hygienist laughingly replied, and continued, “Now, we’re going to take some x-rays to see what may be causing it.”

About ten minutes later, the dentist, Dr. Adams, came in holding John’s x-rays, with a sympathetic look on his face. “You should have had this tooth treated three years ago,” he said. “Now, it looks like you’re going to need quite the filling.” “But that’s not a problem,” Dr. Adams continued, “We can do it right now.”

John had never had a cavity before, and really didn't know what to expect, but Dr. Adams seemed very nice, and even though John thought he looked to be a little too young to be a dentist, he did have a lot of diplomas hanging on the wall.

"Now I'm first going to spray on some topical anaesthetic," Dr. Adams said. "It's like the stuff you spray on a cut to make it feel numb, but for your mouth. This will make it less painful when I inject the freezing."

As the spray took effect, John looked over, and noticed Dr. Adams preparing a very long and curved needle. "Is that for me?" John asked, a little afraid. "Yes" Dr. Adams replied, "Because the tooth we need to work on is in the upper back corner of your mouth, I'll need a very long needle to deliver the anaesthetic. Now you're going to feel a sharp pinch, but I'll inject the freezing very slowly; it's less painful that way."

"Ouch!!!" screamed John as Dr. Adams began the injection, causing Dr. Adams to stop for a second and say, "Now John, I know this part can hurt quite a bit, but just try to relax, and it'll be over in about a minute." While a minute does not normally seem like a long time, to John, it felt like an eternity, especially since he was able to feel every small shake in Dr. Adams' hand as the needle slowly went deeper and deeper into the roof of his mouth, and because of the burning pressure the anaesthetic leaving the needle caused in his mouth. As the pain built up, and John thought he could take no more, Dr. Adams calmly said "hang in there, you're doing a great job. We're almost halfway there." All John could do was lie there, clenching every muscle in his body until he thought he would pass out. And then it was over. The needle was done.

"Now we'll give the freezing a few minutes to kick in," Dr. Adams said, as he began to fiddle with his equipment. As he was doing so, he started to make small talk.

“We get a lot of patients from the company you work for. Usually we get a lot of executives like yourself. I thought about a career like yours in the business world, but decided dentistry was more my calling.

Because John was lying down, he was not able to see entirely what it was that Dr. Adams was doing, which left him feeling a little helpless. The uncomfortable silence was suddenly broken by the loud, high-pitched shrieking whine of Dr. Adams testing the drill he would be using, causing John to jump, shudder, and feel a cold tingle down his spine.

“While you won’t feel any pain” Dr. Adams went on to say, “You will feel the vibrations of the drill in your mouth.”

And so it began. The combined sound, vibration, and pain of the drill seemed unceasing. While John appeared to be in severe pain, all Dr. Adams kept saying was “hang in there, John, you’re doing great.” John thought about asking for more freezing, but thought back to the long curved needle, and just figured that it wasn’t worth the added pain. In fact, John thought to himself that Dr. Adams didn’t even have any concept of what pain was. With the hole drilled out, and the nerves of John’s tooth exposed, Dr. Adams said, “now I just need to see how deep this cavity is, so you may feel a little discomfort.” And with that, he poked a long metal rod into John’s tooth, causing a sharp pain that was no longer limited to his tooth, but seemed to travel all through his body, causing him to jump. “Good,” Dr. Adams said, “Now we can apply the filling.”

As he was applying the filling, Dr. Adams kept talking about the business world, trying to impress John with all he knew about the company he worked for. For his part, John just wished that Dr. Adams would stop talking about mergers and acquisitions, and concentrate more on finishing up with his filling.

After 15 minutes more of lying helplessly in the chair, and in a great deal of pain, Dr. Adams told John that he was just about finished. "Don't eat for the next few hours, and you may feel some mild discomfort as the anaesthetic wears off." John knew, that with Dr. Adams, there was no such thing as 'mild' discomfort. It was gonna hurt. "Oh, and one last thing" Dr. Adams said to John as he was leaving, "Come back in a few weeks so that I can have a look to see how the tooth is healing. If it's not looking good, you may need to have root canal, and unlike getting a filling, it can be quite painful."

## Appendix F

## Dental Pain – Student - Female

Jane had not been to the dentist in the past several years. Now that she was enrolled in university and had found out that she had a dental plan as part of her student benefits, she felt that the time was right to visit the dentist. And besides, her nagging toothache was something that finally had to be addressed.

Jane made an appointment with the dentist recommended by the Student Health Office at her university, and when the day came to visit the dentist, Jane showed up 10 minutes early.

Jane was never afraid of dental work; rather, the reason she had not gone in such a long time was because of a lack of dental insurance. Having this dental plan, Jane thought, was a great thing.

At the dentist, the appointment began with the hygienist asking Jane some basic questions about health, whether she had any problems with her teeth, and the last time she had visited the dentist. “Five years,” Jane said, to the shock of the hygienist.

“Well, I bet that explains your toothache,” the hygienist laughingly replied, and continued, “Now, we’re going to take some x-rays to see what may be causing it.”

About ten minutes later, the dentist, Dr. Adams, came in holding Jane’s x-rays, with a sympathetic look on his face. “You should have had this tooth treated three years ago,” he said. “Now, it looks like you’re going to need quite the filling.” “But that’s not a problem,” Dr. Adams continued, “We can do it right now.”

Jane had never had a cavity before, and really didn't know what to expect, but Dr. Adams seemed very nice, and even though Jane thought he looked to be a little too young to be a dentist, he did have a lot of diplomas hanging on the wall.

"Now I'm first going to spray on some topical anaesthetic," Dr. Adams said. "It's like the stuff you spray on a cut to make it feel numb, but for your mouth. This will make it less painful when I inject the freezing."

As the spray took effect, Jane looked over, and noticed Dr. Adams preparing a very long and curved needle. "Is that for me?" Jane asked, a little afraid. "Yes" Dr. Adams replied, "Because the tooth we need to work on is in the upper back corner of your mouth, I'll need a very long needle to deliver the anaesthetic. Now you're going to feel a sharp pinch, but I'll inject the freezing very slowly; it's less painful that way."

"Ouch!!!" screamed Jane as Dr. Adams began the injection, causing Dr. Adams to stop for a second and say, "Now Jane, I know this part can hurt quite a bit, but just try to relax, and it'll be over in about a minute." While a minute does not normally seem like a long time, to Jane, it felt like an eternity, especially since she was able to feel every small shake in Dr. Adams' hand as the needle slowly went deeper and deeper into the roof of her mouth, and because of the burning pressure the anaesthetic leaving the needle caused in her mouth. As the pain built up, and Jane thought she could take no more, Dr. Adams calmly said "hang in there, you're doing a great job. We're almost halfway there." All Jane could do was lie there, clenching every muscle in her body until she thought she would pass out. And then it was over. The needle was done.

"Now we'll give the freezing a few minutes to kick in," Dr. Adams said, as he began to fiddle with his equipment.

As he was doing so, he started to make small talk. “We get a lot of patients from the university you go to. Usually we get a lot of undergrads like yourself. It was during my undergrad that I decided dentistry was my calling.

Because Jane was lying down, she was not able to see entirely what it was that Dr. Adams was doing, which left her feeling a little helpless. The uncomfortable silence was suddenly broken by the loud, high-pitched shrieking whine of Dr. Adams testing the drill he would be using, causing Jane to jump, shudder, and feel a cold tingle down her spine.

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As he was applying the filling, Dr. Adams kept talking about his time in university, trying to impress Jane with all he knew about the school she went to. For her part, Jane just wished that Dr. Adams would stop talking about fraternities and sororities, and concentrate more on finishing up with her filling.

After 15 minutes more of lying helplessly in the chair, and in a great deal of pain, Dr. Adams told Jane that he was just about finished. “Don’t eat for the next few hours, and you may feel some mild discomfort as the anaesthetic wears off.” Jane knew, that with Dr. Adams, there was no such thing as ‘mild’ discomfort. It was gonna hurt. “Oh, and one last thing” Dr. Adams said to Jane as she was leaving, “Come back in a few weeks so that I can have a look to see how the tooth is healing. If it’s not looking good, you may need to have root canal, and unlike getting a filling, it can be quite painful.”

## Appendix G

### Dental Pain – Student – Male

John had not been to the dentist in the past several years. Now that he was enrolled in university and had found out that he had a dental plan as part of his student benefits, he felt that the time was right to visit the dentist. And besides, his nagging toothache was something that finally had to be addressed.

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As he was doing so, he started to make small talk. "We get a lot of patients from the university you go to. Usually we get a lot of undergrads like yourself. It was during my undergrad that I decided dentistry was my calling.

Because John was lying down, he was not able to see entirely what it was that Dr. Adams was doing, which left him feeling a little helpless. The uncomfortable silence was suddenly broken by the loud, high-pitched shrieking whine of Dr. Adams testing the drill he would be using, causing John to jump, shudder, and feel an a cold tingle down his spine.

"While you won't feel any pain" Dr. Adams went on to say, "You will feel the vibrations of the drill in your mouth."

And so it began. The combined sound, vibration, and pain of the drill seemed unceasing. While John appeared to be in severe pain, all Dr. Adams kept saying was "hang in there, John, you're doing great." John thought about asking for more freezing, but thought back to the long curved needle, and just figured that it wasn't worth the added pain. In fact, John thought to himself that Dr. Adams didn't even have any concept of what pain was. With the hole drilled out, and the nerves of John's tooth exposed, Dr. Adams said, "now I just need to see how deep this cavity is, so you may feel a little discomfort." And with that, he poked a long metal rod into John's tooth, causing a sharp pain that was no longer limited to his tooth, but seemed to travel all through his body, causing him to jump. "Good," Dr. Adams said, "Now we can apply the filling."

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## Appendix H

## Mortality Salience – Business-person - Female

Jane had never been travelling before. Now that she was employed at a Fortune 500 company which required her to travel for her job, Jane was about to go on her first business trip. And besides, the fact that the company was paying for the trip made it all the more appealing.

Flying from Newark, NJ, to San Francisco, CA. Jane booked a ticket on United Airlines flight 93, for September 11, 2001. Jane was pretty excited to fly, and showed up to the airport three hours early.

Jane was never afraid of flying; rather, the reason she had never been travelling, was that the opportunity never presented itself. Having this job that paid her to travel, Jane thought, was a great thing.

At the airport, the journey began with the ticket agent asking Jane some general questions about who she was travelling with, who was around when she packed her bags, and to make idle chit-chat, the last time she had been on vacation. “Never,” Jane said, to the amusement of the ticket agent.

“Well, I bet that explains why you’re so eager to get on this flight,” the ticket agent laughingly replied, and continued, “Now we’re going to x-ray your bags, to make sure there’s nothing forbidden in them.”

About forty minutes later, an announcement came over the airport public announcement system, “United Airlines, Flight 93 is now ready for boarding. All passengers, please report to gate 17A.”

Jane had never really travelled before, and didn't quite know what to expect, but the flight attendants seemed very nice, and even though Jane didn't think that she would have to use the information presented in the pre-flight safety videos, she paid close attention anyway.

"Attention passengers," came a voice through the aircraft's speakers, "This is your captain, Jason Dahl. Please fasten your seatbelts, and prepare for take-off."

As the plane sped up along the runway, Jane could feel butterflies in her stomach. Not really nervousness, though there was some of that, but more from the excitement of it all; of finally being able to travel alone, and all the fun things she had planned once the business part of the trip was over, like lounging the beach, and seeing her good friend who had moved away to San Francisco a few years before, and just the freedom and independence of it all.

"Everyone to the back of the plane!!!" someone suddenly shouted from first-class, a bit under an hour after the plane took off. Jane didn't know what to make of this. Was there a fire on board? Was someone hurt? Not a hijacking, Jane thought, those don't happen anymore. Jane's thoughts were suddenly distracted by the horde of panicked passengers running towards the back of the plane, and by the sight of a man with a red bandana holding a bloodied knife. Jane's heart suddenly dropped into the pit of her stomach as she was confronted with the reality of the situation: hijackers on board, and one passenger already dead.

All of a sudden, the plane started to drop, and time seemed to stand still, yet race by at a million miles a minute. It was at that point, that Jane felt helpless. Not angry, not brave or cowardly, and surprisingly, not even worried; just helpless. A voice then came

over the intercom: "Uh, this is the captain. Would like you all to remain seated. There is a bomb on board, and [we] are going back to the airport, and to have our demands [unintelligible]. Please remain quiet."

Jane felt slightly reassured. Though everyone around her was screaming, all Jane could hear was a surreal silence. Jane thought to herself "they'll meet the demands of the hijackers, and we'll land safely and all be freed." Jane thought about what she'd tell her fellow executives when she returned home from her business trip. While she knew it was the job of an executive to travel a lot, the next time Jane had a business meeting out of town, she told herself half jokingly, that she was just going to take the train.

And so it began. With another sudden drop in altitude, Jane was snapped back into reality, to the sounds of screams, and the vibrations of what seemed to be an out of control airplane. Other passengers were frantically making cell phone calls to their loved ones, and as this happened, word started to circulate among the passengers of the two other flights that had just hit the World Trade Center. It was then, that Jane realized, things would not end like they did in the movies, with heroes beating the villains; it was then, that Jane realized, "I'm going to die...we're all going to die." Jane thought about her family and friends, and wondered if they knew what was going on, and if they did, what was going through their minds. Jane was concerned more for them, than she was for herself.

Jane then tried to take her mind off of all of the comotion around her, by thinking about her upcoming business meeting, and the presentation on mergers and acquisitions she was going to give. If she could make it through this, Jane thought to herself, she could make it through any business meeting that came her way.

After a few chaotic minutes, some of the passengers knew something had to be done. They knew of the World Trade Center, and they knew of the Pentagon. They also knew that they would not be flying back to the airport, but rather, would probably fly into some other civilian target, maybe even the White House, and kill hundreds of innocents in the process. From a small group of men, Jane heard the words "lets roll", and saw them storm the cockpit door.

As they tried to break through the door, the plane began to nose-dive. It was heading straight for the ground at almost the speed of sound. Jane did not join the others in rushing the cockpit door; rather, she just wedged herself between two seats in the back with the other screaming passengers, and remained motionless; stoic, deep in thought, falling, waiting.

## Appendix I

## Mortality Saliency – Business-person – Male

John had never been travelling before. Now that he was employed at a Fortune 500 company which required him to travel for his job, John was about to go on his first business trip. And besides, the fact that the company was paying for the trip made it all the more appealing.

Flying from Newark, NJ, to San Francisco, CA, John booked a ticket on United Airlines flight 93, for September 11, 2001. John was pretty excited to fly, and showed up to the airport three hours early.

John was never afraid of flying; rather, the reason he had never been travelling, was that the opportunity never presented itself. Having this job that paid him to travel, John thought, was a great thing.

At the airport, the journey began with the ticket agent asking John some general questions about who he was travelling with, who was around when he packed his bags, and to make idle chit-chat, the last time he had been on vacation. “Never,” John said, to the amusement of the ticket agent.

“Well, I bet that explains why you’re so eager to get on this flight,” the ticket agent laughingly replied, and continued, “Now we’re going to x-ray your bags, to make sure there’s nothing forbidden in them.”

About forty minutes later, an announcement came over the airport public announcement system, “United Airlines, Flight 93 is now ready for boarding. All passengers, please report to gate 17A.”

John had never really travelled before, and didn't quite know what to expect, but the flight attendants seemed very nice, and even though John didn't think that he would have to use the information presented in the pre-flight safety videos, he paid close attention anyway.

"Attention passengers," came a voice through the aircraft's speakers, "This is your captain, Jason Dahl. Please fasten your seatbelts, and prepare for take-off."

As the plane sped up along the runway, John could feel butterflies in his stomach. Not really nervousness, though there was some of that, but more from the excitement of it all; of finally being able to travel alone, and all the fun things he had planned once the business part of the trip was over, like lounging the beach, and seeing his good friend who had moved away to San Francisco a few years before, and just the freedom and independence of it all.

"Everyone to the back of the plane!!!" someone suddenly shouted from first-class, a bit under an hour after the plane took off. John didn't know what to make of this. Was there a fire on board? Was someone hurt? Not a hijacking, John thought, those don't happen anymore. John's thoughts were suddenly distracted by the horde of panicked passengers running towards the back of the plane, and by the sight of a man with a red bandana holding a bloodied knife. John's heart suddenly dropped into the pit of his stomach as he was confronted with the reality of the situation: hijackers on board, and one passenger already dead.

All of a sudden, the plane started to drop, and time seemed to stand still, yet race by at a million miles a minute. It was at that point, that John felt helpless. Not angry, not brave or cowardly, and surprisingly, not even worried; just helpless. A voice then came

over the intercom: "Uh, this is the captain. Would like you all to remain seated. There is a bomb on board, and [we] are going back to the airport, and to have our demands [unintelligible]. Please remain quiet."

John felt slightly reassured. Though everyone around him was screaming, all John could hear was a surreal silence. John thought to himself "they'll meet the demands of the hijackers, and we'll land safely and all be freed." John thought about what he'd tell his fellow executives when he returned home from his business trip. While he knew it was the job of an executive to travel a lot, the next time John had a business meeting out of town, he told himself half jokingly, that he was just going to take the train.

And so it began. With another sudden drop in altitude, John was snapped back into reality, to the sounds of screams, and the vibrations of what seemed to be an out of control airplane. Other passengers were frantically making cell phone calls to their loved ones, and as this happened, word started to circulate among the passengers of the two other flights that had just hit the World Trade Center. It was then, that John realized, things would not end like they did in the movies, with heroes beating the villains; it was then, that John realized, "I'm going to die...we're all going to die." John thought about his family and friends, and wondered if they knew what was going on, and if they did, what was going through their minds. John was concerned more for them, than he was for himself.

John then tried to take his mind off of all of the comotion around him, by thinking about his upcoming business meeting, and the presentation on mergers and acquisitions he was going to give. If he could make it through this, John thought to himself, he could make it through any business meeting that came his way.

After a few chaotic minutes, some of the passengers knew something had to be done. They knew of the World Trade Center, and they knew of the Pentagon. They also knew that they would not be flying back to the airport, but rather, would probably fly into some other civilian target, maybe even the White House, and kill hundreds of innocents in the process. From a small group of men, John heard the words "lets roll", and saw them storm the cockpit door.

As they tried to break through the door, the plane began to nose-dive. It was heading straight for the ground at almost the speed of sound. John did not join the others in rushing the cockpit door; rather, he just wedged himself between two seats in the back with the other screaming passengers, and remained motionless; stoic, deep in thought, falling, waiting.

## Appendix J

## Mortality Salience – Student – Female

Jane had never been travelling before. Now that she was enrolled in university, and had made some extra money working at the campus bookstore, she felt the time was right to start seeing a bit of the world. And besides, the four months she had off from school for the semester provided the perfect window to do so.

Flying from Newark, NJ, to San Francisco, CA, Jane booked a ticket on United Airlines flight 93, for September 11, 2001. Jane was pretty excited to fly, and showed up to the airport three hours early.

Jane was never afraid of flying; rather, the reason she had never been travelling, was that the opportunity never presented itself. Having this extra time and money to travel, Jane thought, was a great thing.

At the airport, the journey began with the ticket agent asking Jane some general questions about who she was travelling with, who was around when she packed her bags, and to make idle chit-chat, the last time she had been on vacation. “Never,” Jane said, to the amusement of the ticket agent.

“Well, I bet that explains why you’re so eager to get on this flight,” the ticket agent laughingly replied, and continued, “Now we’re going to x-ray your bags, to make sure there’s nothing forbidden in them.”

About forty minutes later, an announcement came over the airport public announcement system, “United Airlines, Flight 93 is now ready for boarding. All passengers, please report to gate 17A.”

Jane had never really travelled before, and didn't quite know what to expect, but the flight attendants seemed very nice, and even though Jane didn't think that she would have to use the information presented in the pre-flight safety videos, she paid close attention anyway.

"Attention passengers," came a voice through the aircraft's speakers, "This is your captain, Jason Dahl. Please fasten your seatbelts, and prepare for take-off."

As the plane sped up along the runway, Jane could feel butterflies in her stomach. Not really nervousness, though there was some of that, but more from the excitement of it all; of finally being able to travel alone, and all the fun things she had planned, like lounging the beach, and seeing her good friend who had moved away to San Francisco a few years before, and just the freedom and independence of it all.

"Everyone to the back of the plane!!!" someone suddenly shouted from first-class, a bit under an hour after the plane took off. Jane didn't know what to make of this. Was there a fire on board? Was someone hurt? Not a hijacking, Jane thought, those don't happen anymore. Jane's thoughts were suddenly distracted by the horde of panicked passengers running towards the back of the plane, and by the sight of a man with a red bandana holding a bloodied knife. Jane's heart suddenly dropped into the pit of her stomach as she was confronted with the reality of the situation: hijackers on board, and one passenger already dead.

All of a sudden, the plane started to drop, and time seemed to stand still, yet race by at a million miles a minute. It was at that point, that Jane felt helpless. Not angry, not brave or cowardly, and surprisingly, not even worried; just helpless. A voice then came over the intercom: "Uh, this is the captain. Would like you all to remain seated. There is

a bomb on board, and [we] are going back to the airport, and to have our demands [unintelligible]. Please remain quiet."

Jane felt slightly reassured. Though everyone around her was screaming, all Jane could hear was a surreal silence. Jane thought to herself "they'll meet the demands of the hijackers, and we'll land safely and all be freed." Jane thought about what she'd tell her fellow sorority sisters when she returned home from her trip. While she knew that part of being a university student was to take some time off to travel the world while she was still young, she told herself half jokingly, that next time, she was just going to take the train.

And so it began. With another sudden drop in altitude, Jane was snapped back into reality, to the sounds of screams, and the vibrations of what seemed to be an out of control airplane. Other passengers were frantically making cell phone calls to their loved ones, and as this happened, word started to circulate among the passengers of the two other flights that had just hit the World Trade Center. It was then, that Jane realized, things would not end like they did in the movies, with heroes beating the villains; it was then, that Jane realized, "I'm going to die...we're all going to die." Jane thought about her family and friends, and wondered if they knew what was going on, and if they did, what was going through their minds. Jane was concerned more for them, than she was for herself.

Jane then tried to take her mind off of all of the comotion around her, by thinking about her upcoming upcoming semester at university, and all the presentations and exams she would have to do. If she could make it through this, Jane thought to herself, she could make it through any exam or assignment that came her way.

After a few chaotic minutes, some of the passengers knew something had to be done. They knew of the World Trade Center, and they knew of the Pentagon. They also knew that they would not be flying back to the airport, but rather, would probably fly into some other civilian target, maybe even the White House, and kill hundreds of innocents in the process. From a small group of men, Jane heard the words "lets roll", and saw them storm the cockpit door.

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## Appendix K

### Mortality Saliency – Student – Male

John had never been travelling before. Now that he was enrolled in university, and had made some extra money working at the campus bookstore, he felt the time was right to start seeing a bit of the world. And besides, the four months he had off from school for the semester provided the perfect window to do so.

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## Appendix L

## Filler Material – PANAS

PANAS

This scale consists of a number of words 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.

1	2	3	4	5
very slightly or not at all	a little	moderately	quite a bit	extremely
___ interested				___ distressed
___ alert				___ excited
___ ashamed				___ upset
___ inspired				___ strong
___ nervous				___ guilty
___ determined				___ scared
___ attentive				___ hostile
___ jittery				___ enthusiastic
___ afraid				___ proud
___ irritable				___ active

## Appendix M

## Filler – Word Search

Please find and circle the words  
below:

S	H	R	W	L	T	Z	D	W	F
R	T	I	O	U	V	L	R	K	R
E	W	A	W	S	E	A	A	R	A
E	F	W	X	F	E	W	U	P	S
H	G	Z	N	I	L	A	N	S	I
C	S	I	M	P	S	O	N	S	E
X	E	D	G	G	V	D	D	N	R
S	S	D	N	E	I	R	F	D	E
B	Q	I	N	M	A	S	H	T	D
A	W	X	H	Y	Q	D	P	F	M

CHEERS  
FRASIER  
FRIENDS  
MASH  
ROSEANNE  
SEINFELD  
SIMPSONS  
TAXI  
WINGS  
WKRP

## Appendix N

## Political Ideology Questionnaire

Sometimes in Canada people use the labels "left" or "left-wing" and "right" or "right-wing" to describe political parties, politicians and political ideas. When you think of your own political opinions, where would you place yourself on the following left-right scale?

1	2	3	4	5	6	7
Left			Neutral			Right

Please use one of the following numbers to indicate your political views in the accompanying categories.

	Very Liberal	Liberal	Slightly Liberal	Middle of the Road	Slightly Conservative	Conservative	Very Conservative
Foreign policy issues	1	2	3	4	5	6	7
Economic issues	1	2	3	4	5	6	7
Social issues	1	2	3	4	5	6	7

Using the scale below, indicate the extent to which you support each of the following concepts.

	Strongly Oppose	Oppose	Somewhat Oppose	Neither Oppose, nor Support	Somewhat Support	Support	Strongly Support
Capital Punishment	1	2	3	4	5	6	7
Spending to improve the environment	1	2	3	4	5	6	7
Universal Health Care	1	2	3	4	5	6	7
Spending to improve education	1	2	3	4	5	6	7
Spending for	1	2	3	4	5	6	7

the poor							
Increased funding of the military	1	2	3	4	5	6	7

## Appendix O

## Mortality Saliency Questionnaire

MSQ – v.3

Please indicate your answers to the following questions on a scale of 1 (*Strongly Disagree*) to 9 (*Strongly Agree*).

1. I worry that I may die before my time.

Strongly disagree				Neutral					Strongly agree
1	2	3	4	5	6	7	8	9	

2. I sometimes think about how I will die.

Strongly disagree				Neutral					Strongly agree
1	2	3	4	5	6	7	8	9	

3. I am concerned about what will happen to me after I die.

Strongly disagree				Neutral					Strongly agree
1	2	3	4	5	6	7	8	9	

4. I am afraid there is no afterlife.

Strongly disagree				Neutral					Strongly agree
1	2	3	4	5	6	7	8	9	

5. I sometimes think about what my funeral will be like.

Strongly disagree

Neutral

Strongly agree

1 2 3 4 5 6 7 8 9

6. I feel comfortable knowing that my own death is inevitable.

Strongly disagree

Neutral

Strongly agree

1 2 3 4 5 6 7 8 9

7. I am not fearful about the thought of my own death.

Strongly disagree

Neutral

Strongly agree

1 2 3 4 5 6 7 8 9

8. I worry about dying and not being able to accomplish the things I want to in my life.

Strongly disagree

Neutral

Strongly agree

1 2 3 4 5 6 7 8 9

9. I often think about how my friends and family would react to my death.

Strongly disagree

Neutral

Strongly agree

1 2 3 4 5 6 7 8 9

10. I try to live my life to the fullest, knowing I can die anytime.

Strongly disagree

Neutral

Strongly agree

1 2 3 4 5 6 7 8 9

## Appendix P

## Group Identification Questionnaire

## GIQ

Please rate on the following 9-point scales, the degree to which you support the following statements:

1. Without looking back to the story you just read, what was the occupation of the main character? \_\_\_\_\_
2. I feel I strongly identify with the main character in the story I read.

Strongly disagree		Neutral		Strongly agree				
1	2	3	4	5	6	7	8	9

3. It was easy for me to identify with the main character in the story I read.

Strongly disagree		Neutral		Strongly agree				
1	2	3	4	5	6	7	8	9

4. There are a lot of similarities between myself and the main character in the story I read.

Strongly disagree		Neutral		Strongly agree				
1	2	3	4	5	6	7	8	9

5. There are a lot of differences between myself and the main character in the story I read.

Strongly disagree				Neutral					Strongly agree
1	2	3	4	5	6	7	8	9	

6. I can see this event happening to me.

Strongly disagree				Neutral					Strongly agree
1	2	3	4	5	6	7	8	9	

7. This event is very vivid in my mind.

Strongly disagree				Neutral					Strongly agree
1	2	3	4	5	6	7	8	9	

8. It is very difficult to picture this event happening to me.

Strongly disagree				Neutral					Strongly agree
1	2	3	4	5	6	7	8	9	

## Appendix Q

## Civil Liberties Questionnaire

## CLQ

Please indicate how willing you are to endorse the following practices, using the following 9-point scales ranging from "not at all willing", "neutral", to "extremely willing":

1. How willing are you to support legislation or practices that restrict one's personal freedoms and civil liberties in the name of fighting terror, if they make our country more secure?

Not at all willing			Neutral			Extremely		
willing								
1	2	3	4	5	6	7	8	9

2. How willing are you to support a law that makes it easier to listen-in on terrorists' phone calls if it means that your phone calls may be listened-in on too?

Not at all willing			Neutral			Extremely		
willing								
1	2	3	4	5	6	7	8	9

3. How willing are you to support laws that ensure suspected terrorists receive fair court trials, even if it means that some of them may be found innocent and set free?



7. What kind of things do you think need to be done in order to keep our country safe from terrorist attacks?
-