# **OBJECTS OF PRIMARY VALUE:**

# FAME, CELEBRITY, AND THE QUEST FOR SYMBOLIC IMMORTALITY

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# ABSTRACT OF THE DISSERTATION

#### **OBJECTS OF PRIMARY VALUE:**

# FAME, CELEBRITY, AND THE QUEST FOR SYMBOLIC IMMORTALITY by MATTHEW C. DOHN

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Research guided by Terror Management Theory (TMT; Greenberg, Pyszczynski, & Solomon, 1986) has provided powerful evidence that reminders of death motivate defensive behaviors designed to preserve self-esteem and buffer against the conscious awareness of personal mortality. Fascination with fame and celebrity are posited to be important within the TMT framework, as they reflect the human need for symbolic immortality, whether direct or vicarious. The present research examined three basic hypotheses. First, reminders of death should lead individuals to view fame and celebrity as particularly desirable for the self, and to greater fascination with celebrities. Second, the experience of vicarious fame should protect individuals from the threat of mortality salience, thus reducing their need to engage in terror managing worldview defensive behavior. Third, the belief that one has the potential to achieve celebrity should afford the protective worldview provided by fame and celebrity, and reduce subsequent worldview defense. Three experiments were conducted to test these hypotheses. Study 1 examined the relationship between reminders of death (mortality salience), valuing fame and celebrity for the self, and ratings of celebrity related information. Celebrity information

(but not valuing fame and celebrity for the self) was viewed more favorably by individuals reminded of their death, provided they expressed anxiety. Study 2 examined whether vicarious fame might serve to reduce terror managing worldview defensive responses following mortality salience. Support for the hypothesized effect in Study 2 was not found; instead, an unexpected and opposite effect was observed, such that increased mortality salience led to decreased worldview defense. Study 3 examined whether celebrity potential would reduce worldview defensive behavior following reminders of death. This hypothesis was not supported. However, learning one has any chance of becoming a celebrity was comforting to individuals when mortality was salient. Furthermore, results from Study 1 and 3 suggest that women may value celebrity and fame more than men. Taken as a whole, the research represents an important first step in understanding the role of fame and celebrity within the Terror Management Theory framework.

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#### INTRODUCTION

With the enormous popularity of television shows such as "American Idol" and so-called "reality shows" in which average Americans clamor for their Warholian fifteen minutes of fame, it appears that the pursuit of fame is at a cultural high-point. According to the June 11th, 2006 New York Times magazine, more Americans than ever before are leaving their homes and families to move to Los Angeles with a would-be child star in order to pursue that child's possibility of becoming a celebrity. In addition, hunger for celebrity information has never been more apparent or more readily satisfied. In the minds of many Americans, the quest for updates on the lives of celebrities such as Brad Pitt and Angelina Jolie has become a major motivating force. For example, a 2005 year-end report of the top Google news searches revealed that celebrities occupied six of the top ten spots, with "Janet Jackson" garnering more search interest than either "Hurricane Katrina" or "tsunami" (Google Zeitgeist 2005).

The advent of the Internet in the last decade has afforded the common citizenry unprecedented access to the minutiae of celebrity lives. As just one example, the website Gawker.com promotes a feature named "Gawker Stalker" through which celebrity sightings in major metropolitan areas are tracked in real time with startling frequency. Web logs, or "blogs," allow any individual with an Internet connection and a modest degree of celebrity access to publish their own virtual version of the National Enquirer. Many of these celebrity gossip web sites boast readership counts in the hundreds of thousands, rivaling many legitimate news sites.

The ubiquity of celebrity information within popular culture suggests that such information is likely to serve a larger social function. One obvious function that celebrity

information serves is entertainment. Just as we are entertained by the media products of celebrity (e.g., movies, television, music, literature), celebrity information also provides an important distraction from the routine of daily life. In addition, monitoring the (often) opulent lives of celebrities affords a unique window into the most conspicuous forms of consumer behavior. The fulfillment of these needs may be significant to many individuals. However, research in the field of terror management theory suggests a more basic and ubiquitous function of the quest for fame and celebrity information. Fame and celebrity are defined as possessing a substantial, long-lasting degree of public admiration and recognizability. The current research sought to investigate the primary hypothesis that fame and celebrity serve as twin sources of symbolic immortality and thereby function to reduce existential anxiety.

#### Terror Management Theory

Terror management theory (TMT; Greenberg, Pyszczynski, & Solomon, 1986) posits that the awareness of the inevitability of death is unique to humans, and the resulting anxiety is a primary motivator of our social behavior. If we were to live in constant awareness of the fact that death awaits us at some uncertain point in the future, the resulting anxiety and depression would be psychologically crippling. Therefore, humans have had to devise means of coping with death awareness and anxiety to find some meaning for our existence.

As reviewed below, TMT posits the experience of death anxiety is buffered by a number of psychological defenses. These defense mechanisms are designed to remove thoughts of death from conscious awareness, bolster a sense of meaning in one's life, and

increase self-esteem. Feelings of being part of a larger cultural institution, such as national identity or religious affiliation, can help protect against death anxiety by extending the temporary self to a larger entity (e.g., God, America, or any enduring, cultural worldview) that is not subject to the same mortality concerns as the self. Put another way, association of the self with something more "immortal" serves to reduce the effects of mortality awareness.

To summarize, terror management theory states that human awareness of death's inevitability creates a potential for existential anxiety. In response, cultural worldviews that define what is valuable and desirable have emerged. Cultural worldviews are important because humans derive a sense of worth and self-esteem from successfully achieving the ideals set forth by the cultural worldview. In this way, self-esteem serves as a buffer against the experience of existential anxiety, allowing individuals to feel that they are valuable and important members of a larger reality.

A considerable amount of evidence has emerged in the literature supporting these major propositions of terror management theory. The following sections provide an overview of relevant research findings. First, mortality salience has been associated with subsequent self-esteem striving behavior. Second, reminders of death motivate worldview defensive behavior, provided the threat of death has had a chance to recede from consciousness. Third, increasing self-esteem prior to mortality salience reduces the expected behavioral effects. Finally, TMT posits that mortality salience increases existential anxiety, which is why people are motivated to defend their worldviews.

The role of delay and distraction. As summarized below, research in terror management theory has demonstrated consistent patterns of self-esteem striving and

worldview defensive behavior following reminders of death. These findings have led Pyszczynski, Greenberg, & Solomon (1999) to propose a dual-process model of defensive behavior in response to mortality salience. More specifically, a distinction has been made between proximal and distal defenses against reminders of death.

According to Pyszczynski et al. (1999), proximal defenses are employed right after exposure to a reminder of death, during the period of time when thoughts about death are likely to be in consciousness. Proximal defenses are rational responses designed to directly and quickly remove thoughts of death from conscious awareness, typically by engaging in distracting behavior. Distal defenses, such as self-esteem striving and worldview defense, are more abstract responses to reminders of death. These responses emerge after a delay, presumably allowing time for the immediate threat to the self posed by an acute reminder of death to fade from conscious awareness. Distal defenses seek to reinforce the social and personal structures from which self-esteem is derived, and are employed to keep thoughts of death from entering conscious awareness.

Given that the present research was designed to investigate worldview defensive behavior following mortality salience reminders, delay and distraction manipulations were employed following reminders of death.

#### Self-Esteem Striving

Threats to the self-concept have been found to motivate compensatory efforts designed to increase explicit self-esteem (e.g. Greenberg & Pyszczynski, 1985;

Pyszczynski, Greenberg, Solomon, Arndt, & Schimel, 2004). Evidence has also emerged for implicit self-esteem compensation following self-concept threats (Rudman & Dohn,

2005; Rudman, Dohn, & Fairchild, in press). Given that mortality reminders represent a unique and direct form of self-concept threat, it follows that threats of this kind should be related to subsequent attempts to increase self-esteem. Accordingly, evidence has emerged in the literature showing increased self-esteem striving behavior in response to reminders of death.

Beliefs about the self. Beliefs about the self have been shown to be an effective means for self-esteem striving. There is evidence that mortality salience is associated with greater tendency to engage in self-serving attributions regarding positive and negative situations. Mikulincer & Florian (2002, Study 1) found that mortality salient individuals were more likely to attribute positive outcomes to more stable, internal qualities and negative outcomes to less stable, internal qualities, thereby providing a venue for self-esteem striving following a reminder of death.

In addition, Dechesne, Janssen, and van Knippenberg (2000; as cited in Pyszczynski, Solomon & Greenberg, 2002) showed that participants viewed positive personality feedback as significantly more accurate following reminders of death.

Contingencies of self-worth. People often base their self-esteem on different aspects of the self (Crocker, 2002; Crocker & Knight, 2005). Thus, people reminded of death might use specific contingencies of their self-worth to improve their self-esteem. In line with this view, Goldenberg, McCoy, Pyszczynski, Greenberg, & Solomon (2000, Study 1) demonstrated that individuals who view their body as an important source of self-worth rated their body as significantly more important to their sense of self following a mortality reminder than control participants (Goldenberg, Pyszczynski, Greenberg, & Solomon, 2000). In addition, Goldenberg et al (2000, Study 2) showed that mortality

salience also significantly increased self-reported enjoyment in the act of sex for individuals who view the body as a key source of self-esteem, as compared to controls.

Goldenberg, Landau, Pyszczynski, Cox, Greenberg, Solomon, & Dunnam (2003, Study 3) found that male participants who derive self-esteem from the sexual component of their relationships evaluated partner's cheating behavior significantly more negatively following mortality being made salient as compared to the evaluations made by controls.

Taubman Ben-Ari, Florian, & Mikulincer (1999, Study 1) looked at individuals for whom driving ability was a source of self-worth. Following a mortality salience induction, participants who derive self-esteem from their driving ability reported significantly more risky driving behavior as compared with control participants.

Furthermore, when allowed to use a driving simulation program, high driving self-esteem participants demonstrated significantly more risky driving behavior than controls (Taubman Ben Ari et al. 1999, Study 3). Taken together, the studies provide further evidence that individuals will engage in behavior designed to increase feelings of self-worth following a mortality salience induction.

Health behaviors. Contingencies of self-worth research has also led to findings that are pertinent to health behaviors. Arndt, Schimel, & Goldenberg (2003, Study 2) identified individuals who were rated either high or low in degree to which fitness was related to their sense of self-worth. They found that following a reminder of death, individuals for whom fitness was an important source of self-esteem reported significantly greater intentions to engage in fitness related behavior than control participants.

Routledge, Arndt, & Goldenberg (2004; Study 1) investigated the effects of mortality salience on tanning behavior. Female participants for whom tanning was related to their sense of self-worth were significantly less interested in sunscreen products following a mortality salience induction as compared to controls. Given that being adequately tanned represents a personally important venue for self-esteem striving, this finding is not surprising.

Mortality salience has also been shown to temporarily increase scores on measures of physical strength. Peters, Greenberg, Williams & Schneider (2005) found that individuals whose sense of self-worth was associated with degree of physical strength performed significantly greater on a measure of hand strength following a reminder of death, as compared to control participants.

In sum, the effect of mortality salience on health behaviors can be either adaptive (in the case of physical exercise) or maladaptive (in the case of tanning), suggesting that personal health can, ironically, be less important than self-esteem striving in the service of terror management.

Status striving. Self-esteem striving has also been demonstrated in terms of status striving through consumer behaviors (e.g., Arndt, Solomon, Kasser, & Sheldon, 2004). Mandel & Heine (1999) showed that participants reminded of death (using Boyar's [1964] Fear of Death scale) rated products associated with high status more favorably than control participants. Mortality salience led these individuals to reinforce indicators of economic status as a venue for protective feelings of self-worth.

Kasser and Sheldon (2000, Study 2) found evidence that mortality salience increases greedy behavior with regard to financial resources. Participants involved in a

competitive resource allocation game exhibited significantly greater amounts of greedy decision making following reminders of personal mortality as compared to controls.

Moreover, Kasser and Sheldon (2000, Study 1) found that mortality salience led individuals to forecast significantly greater amounts of future financial success. In addition, people reminded of death also predicted significantly greater amounts of pleasure spending, as compared to control participants.

Individuals' investment in social status has also been shown to increase significantly in response to reminders of death. Burling (1993) found that exposure to mortality salience reminders lead individuals to report significantly greater investment in achieving and maintaining social status and prestige. To the extent that financial success is generally associated with increased feelings of self-worth, it seems that mortality salience increases cognitions associated with self-esteem striving in these domains.

Immortality. Research has also been conducted looking at a specific type of self-esteem striving behavior; namely, endorsement of the concept of immortality. To the extent that individuals believe some meaningful component of the self can continue past one's inevitable physical demise, acute mortality salience reminders should lose their effectiveness. Likewise, the belief that the self is temporary should lead to an enhancement in the effectiveness of mortality salience manipulations, and motivate subsequent self-esteem striving behavior. To that end, Dechesne, Pyszczynski, Arndt, Ransom, Sheldon, van Knippenberg et al (2003, Study 3) demonstrated that priming of the concept of life ending at physical death led individuals to behave in greater self-esteem striving behavior. Furthermore, they discovered that priming the concept of literal immortality led to the elimination of this effect.

#### Increased Worldview Defense

One of the most consistent findings in the terror management theory literature is that reminders of death have been associated with subsequent attempts to reinforce the protective worldview from which their sense of self-worth is primarily derived. Initial support for this component of TMT can be found in Greenberg, Simon, Pyszczynski, Solomon, and Chatel (1992). Following the logic of TMT, Greenberg et al. (1992, Study 1) hypothesized that reminders of death should lead individuals of one political group to view politically like-minded individuals more favorably than individuals of different political leanings. However, politically liberal individuals, whose worldview has traditionally valued greater tolerance for opposing worldviews, should show less of a negative effect on evaluations of politically different individuals. The hypothesized effect was shown, with mortality salient conservatives evaluating liberal target individuals as significantly less favorable than conservative targets. However, mortality salient liberals did not show the same effect on evaluations of conservative and liberal targets following a reminder of death.

A more ubiquitous finding within the terror management literature is that mortality salience leads to negative evaluations of outgroup members relative to ingroup members, suggesting people defend their worldviews when threatened by death. Harmon-Jones, Simon, Greenberg, Pyszczynski, Solomon, & McGregor (1997, Study 1) found that mortality salient participants more negatively evaluated the author of an anti-American essay, as compared to the evaluations made by control partipants. Arndt & Greenberg (1999) found further evidence of this effect by demonstrating mortality

salience led individuals to more negatively evaluate someone who criticized their choice of college major.

Arndt, Greenberg, Solomon, Pyszczynski, & Simon (1997, Study 3) expanded on the American worldview defense findings by establishing that when individuals are not able to make negative evaluations of individuals who threaten their worldview, there is evidence that death thoughts become significantly more accessible. This effect was also replicated in Greenberg, Arndt, Schimel, Pyszczynski, & Solomon (2001).

While there is plenty of evidence that mortality salience motivates defense of the protective worldview in the form of negative evaluations of violate cultural and social standards, there is also evidence that mortality salience leads individuals to more favorably view people who reinforce important aspects of the cultural worldview.

Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon (1989, Study 3) found that participants reminded of death recommended significantly greater rewards for individuals who were involved in crime-fighting behavior.

Priming the value of tolerance prior to mortality salience has been shown to motivate individuals to engage in tolerant behavior following a reminder of death.

Greenberg et al (1992, Study 2) found that, when asked to evaluate authors of worldview consistent and inconsistent essays, individuals primed to consider the value of tolerance rated worldview consistent essays significantly more favorably than individuals not primed for tolerance.

In one study, after being exposed to a death reminder, Christian participants reported more negative attitudes towards Jews, compared with Christians exposed to a neutral stimulus (Greenberg et al., 1990). Similar effects for mortality salience were

obtained among German students who evaluated Germans more positively than Turks (Ochsmann & Mathy, 1994; as cited in Pyszczynski, Solomon & Greenberg, 2002), providing cross-cultural support for TMT. It seems the unique threat to the self posed by reminders of death serves to motivate individuals to defend their ingroup, and as a result, their cultural worldview- an important aspect of the self that extends past the boundaries of the physical body.

In addition to increasing negative attitudes toward outgroup members, TMT research on defensive responses has also identified a number of behavioral responses to death reminders. In the previously discussed example, following death reminders, German participants who were observed covertly were found to sit significantly farther away from someone they believed to be Turkish than someone they perceived to be German (Ochsmann & Mathy, 1994). In another study examining the link between mortality salience and outgroup aggression, individuals reminded of death engaged in aggressive behavior by allocating significantly more hot sauce to people who negatively evaluated the participants' worldview (McGregor, Lieberman, Greenberg, Solomon, Arndt, Simon et al., 1998).

Florian & Mikulincer (1998, Study 2) provided evidence that reminders of death are associated with more negative evaluations of a hypothetical criminal arrested for prostitution. In this study, mortality salient individuals recommended significantly higher bond for this defendant than control participants for whom mortality was not made salient.

Mortality salience should also motivate intentions to physically defend the protective worldview, if necessary. Along these lines, Taubman-Ben-Ari & Findler

(2006) found that Israeli soldiers reported significantly greater motivation to defend their country by serving in the military following a mortality salience manipulation, as compared to controls.

There is also evidence that the protection offered by close relationships is sought by individuals reminded of death. Several studies have shown that following mortality being made salient, individuals view close relationships as significantly more important and will go to greater lengths to maintain the quality of these relationships (Mikulincer & Florian, 2000; Taubman Ben-Ari, Findler, & Mikulincer, 2002; Mikulincer, Florian, & Hirschberger, 2003).

Evidence for gender-specific worldview defense has also emerged following mortality salience. Fritsche & Jonas (2005) asked male and female participants to evaluate a description of a hypothetical pro-woman college course after being exposed to a reminder of death. Mortality salience significantly interacted with gender, such that men rated the college course significantly more negatively than women.

Worldview defensive behavior in response to mortality salience has also been experimentally reduced by priming self-relevant concepts. Dechesne et al. (2003, Study 3) found evidence that priming of the concept of life ending at physical death lead individuals to engage in greater worldview defensive behavior following mortality salience. However, individuals who were primed with the concept of literal immortality did not show the predicted worldview defensive behavior following mortality salience.

Threats to worldview have also been found to impact the self on an implicit level.

Bassett (2005) found that threats to participant's worldview regarding the social institution of marriage led to greater association of the self with the concept of death, as

measured by the Implicit Association Test (IAT; Greenwald, McGhee, & Schwartz, 1998).

These findings make it clear that following increases in mortality salience, individuals will typically seek to defend their cultural worldviews. Furthermore, these defenses may take a variety of forms, from increases in negative attitudes toward perceived outgroups, to actual behaviors directed toward promoting the ingroup and derogating outgroups.

Buffering Self-Esteem Reduces Terror Management Behavior

As the above suggests, reminders of death represent a threat to self-esteem.

Increasing the salience of personal mortality has been linked to subsequent efforts to increase self-esteem, thus restoring the protective self-esteem buffer. However, research has also demonstrated that bolstering self-esteem prior to reminders of death serves to reduce the impact of mortality salience.

Experimentally increasing self-esteem in the form of positive personality feedback was found to significantly reduce the degree to which an anti-American essay writer was negatively evaluated following mortality being made salient (Harmon-Jones et al., 1997, Study 1). The same reduction effect on worldview defense was found for individuals with dispositionally high self-esteem (Harmon-Jones et al., 1997, Study 2).

In addition, while mortality salience significantly increased the accessibility of death-related thoughts, experimentally increased self-esteem was found to eliminate this effect (Harmon-Jones et al., 1997, Study 3).

Other research has suggested that affirming the self can also buffer people against mortality salience. Threats to self-esteem in the form of negative task performance feedback enhance the accessibility of death thoughts following mortality salience.

However, Mikulincer & Florian (2002, Study 3) found that when individuals were allowed to engage in self-serving attributions to restore the self esteem, these individuals demonstrated significantly reduced death-thought accessibility following mortality salience as compared to controls.

Schmeichel and Martens (2005) asked subjects to choose a value that they found personally meaningful to them, and to write about how they express that value in their lives (the standard self-affirmation manipulation; Steele, 1988). The remaining subjects chose, and wrote about, a value that other people might find meaningful. In the high self-affirmation condition, mortality salience did not have the typical worldview defense effect (as found in the low self-affirmation condition.)

Affirming personal religious beliefs prior to mortality being made salient has also been found to reduce worldview defense. Jonas & Fischer (2006, Study 2) had German participants affirm their religious beliefs either before or after completing the traditional mortality salience manipulation. Then, these German individuals were given the opportunity to engage in worldview defense by evaluating an essay with a pro-Munich theme. Religious individuals who were allowed to affirm their religious beliefs prior to a reminder of death showed a significant decrease on subsequent worldview defense, as compared to controls.

Participants who received positive personal feedback were also found to be less likely to demonstrate elevated anxiety following reminders of death. More specifically,

positive personality feedback was associated with less self-reported anxiety (Greenberg, Solomon, et al., 1992, Study 1), and positive feedback about individuals' cognitive abilities was linked to lowered physiological indicators of anxiety following mortality being made salient (Greenberg, Solomon, et al., 1992, Study 2). From these studies, it is clear that temporary increases in self-esteem are related to decreased propensity to experience anxiety following reminders of death. Put another way, these findings demonstrate that self-esteem reduces anxiety following reminders of death.

# Existential Anxiety

Terror management theory proposes that reminders of death represent a form of self-concept threat, as mortality salience reminders increase the possible experience of anxiety. Several studies have established that self-concept threats are associated with increased general anxiety. Greenberg et al. (1992, Study 1) found evidence for an increase in general anxiety following a mortality reminder in the form of a video tape depicting vivid and horrifying deaths. Self-concept threat has also been associated with increased anxiety on physiological and self-reported measures of anxiety (Greenberg et al., 1992, Studies 2 and 3).

Although some of the research reviewed above suggests that mortality salience directly enhances anxiety, it is important to note that the majority of evidence does not show this effect (Greenberg et al., 2003). That is, people seldom report more anxiety following mortality salience, or show signs of it using physiological measures. Therefore, reminders of death are assumed to enhance the potential to experience anxiety rather than the experience of anxiety directly. As such, terror-managing defensive behaviors serve a

prophylactic function against the experience of existential anxiety (Greenberg et al., 2003). In support of this, a study was conducted in which participants were given one of two drugs: Taxor, a supposed anxiety blocker, or Riodin, a supposed memory enhancer. Participants who were given the memory enhancer showed the expected pattern of worldview defense following mortality salience. However, participants who believed they took an anxiety-blocking drug did not show worldview defense following reminders of death. Once the potential to experience anxiety was removed as a possible reaction to mortality salience, participants did not engage in subsequent efforts to defend their worldview (Greenberg et al., 2003). These findings suggest that terror management defenses protect against the potential to experience anxiety, rather than the experience of anxiety itself.

In sum, the body of research in terror management points to several important findings. First, reminders of death motivate individuals to maintain adequate levels of self-esteem and to engage in behaviors designed to increase self-esteem. Second, increases in mortality salience lead to worldview defensive behavior designed to bolster one's ingroup at the expense of competing groups and their beliefs. Third, increases in self-esteem prior to reminders of death negate the worldview defense effects of mortality salience. In concert, these findings support the theoretical links between death awareness, self-esteem, and worldview defense that are posited by TMT. Finally, although anxiety is seldom a direct outcome of death reminders, research has suggested that people use defensive strategies to prevent death anxiety from coming into awareness. Thus, there is some support for the fundamental TMT tenet that death awareness engenders existential anxiety.

#### Ernest Becker and Hero Worship

To date, researchers have not investigated the possibility that the quest for fame and celebrity serves a terror-management function. However, the roots of TMT are traced directly to the work of Ernest Becker, a cultural anthropologist who addressed the importance of celebrity. Becker (1973) argued for the existence of a "cultural hero system," the primary function of which is to provide meaning for objective reality. Becker started from the proposition that the primary motivation underlying human behavior is the creation and maintenance of self-esteem. Possessing self-esteem allows individuals to perceive the self as an entity that is valuable in some larger cosmic and enduring sense (Becker, 1973).

Becker argued that heroes serve an important function in society, as they stand as "objects of primary value in the universe" (1973, p. 4). Heroes are idealized in part for their ability to transcend the limitations of the human form, and to achieve a level of symbolic immortality through their actions and character. The symbolic immortality of celebrity is a particularly desirable form of immortality, as celebrity and fame allow for the leaving of a social and cultural legacy. Many of our greatest social and cultural icons are still discussed today with reverence and sincere affection. Our shared knowledge of their lives and accomplishments remains a permanent legacy beyond their physical expiration.

Since the human animal is uniquely aware of and afraid of death, it follows that individuals who have demonstrated success at achieving this highly desired form of symbolic immortality are likely to be viewed favorably and strongly idealized as exemplars of transcending the limitations of human mortality. In a sense, our cultural

heroes serve to "light the path" through the darkness, by providing one way to achieve the seemingly unachievable.

In sum, although TMT researchers have yet to explore the possibility, there are theoretical reasons to suspect that fascination with celebrity and the quest for fame can function to ease existential anxiety.

#### Celebrity and Symbolic Immortality

If it is the case that we are burdened on some level with the awareness of our mortality, it stands to reason we are likely motivated to seek out ways in which to attain some degree of immortality. Because literal immortality is never a guarantee (even for those who subscribe to religions that directly promise it), symbolic death transcendence is often pursued as a substitute. There are many ways of achieving symbolic immortality (e.g., aligning the self with cultural ideals and institutions, having children, or naming an endowment after yourself). It follows that the pursuit of fame and the thirst for knowledge about the famous are likely to be ways of obtaining symbolic immortality. Celebrities are able to transcend the problem of mortality through fame that is expected to last beyond the point of death. In this way, celebrities are viewed as a type of hero, as they have been successful in becoming "objects of primary value in the universe" (Becker, 1973, p. 4).

In fact, it may be that celebrity represents a particularly useful form of symbolic immortality not entirely different from a typical religion. Our most famous celebrities are revered on an almost God-like level, with millions of individuals pouring disposable income into their latest theatrical release or autobiography. Fan websites are erected

where many recount intimate details of celebrities' lives and share stories of particularly memorable encounters with those whom they idolize. Objectively mundane artifacts, like a signature on a piece of paper, take on almost mythical properties and become both financially and emotionally valuable. As testaments to their cultural value, celebrities are often paid astronomical amounts of money for the work they do. Moreover, buildings and events are often named after them, and monuments to their fame are erected, both temporary and permanent (e.g., billboards, statues, and stars on a California sidewalk). Indeed, the use of the term "worship" in reference to celebrity fandom suggests a more-than-superficial connection to religion.

Celebrities are largely perceived as individuals of great personal wealth and power, whose fame will live on well after their physical bodies have expired. Quite simply, investment in the world of celebrities is likely to carry the benefit of symbolic and vicarious immortality. As summarized above, a wealth of evidence suggests mortality reminders lead people to pursue symbolic immortality in the form of defending their worldview. I argue that celebrity worship serves a similar function-- reminders of mortality are hypothesized to increase individuals' desire for achieving personal celebrity as a way of assuaging unconscious mortality concerns. Exposure to celebrity information is also hypothesized to prime immortality associations, thereby reducing the defensive effects of mortality reminders.

### Basking in Reflected Glory

The present research proposes that interest in celebrities is likely to serve a protective terror managing function. Our shared cultural interest in celebrities and fame is

proposed to buffer individuals against the experience of existential anxiety by allowing individuals to associate the self with symbolically immortal cultural heroes. By identifying with admired celebrities, individuals are able to enhance the self.

This vicarious process is likely related to the research done on the phenomena of basking in reflected glory (BIRG; Cialdini, Borden, Thorne, Walker, Freeman, & Sloan, 1976; Snyder, Lassegard, & Ford, 1986; Lee, 1985). The research on BIRGing has shown that individuals are likely to strengthen their perceived connection to individuals or entities that possess highly desirable qualities. In the classic study of BIRGing, college students were shown to be significantly more likely to demonstrate affiliation with their college football team on the day following a team win than a team loss (Cialdini, et al., 1976). In another study of BIRGing, college student basketball fans showed a positive correlation between affiliation with their college team and recent personal success on a college knowledge measure (Lee, 1985).

The tendency to bask in the reflected glory of admired others is relevant to the present research, because it provides a possible explanation for why celebrities are held in such high regard within popular culture. The "glory" of celebrities lies primarily in their seeming ability to achieve a highly desired form of symbolic immortality through fame and celebrity. The literature on BIRGing suggests that self-esteem can be enhanced through identification with desirable and admired individuals. As self-esteem enhancement is an important component of the structure of TMT defense, this literature is quite relevant to the present research.

# The Psychology of Celebrity

Going beyond strictly theoretical approaches, much of the research on the psychology of celebrity and fame has centered on the clinical consequences of varying levels of celebrity worship. In extreme cases, celebrity worship has been associated with a number of negative outcomes for individuals, such as lower self-esteem, deficiencies in interpersonal relationships, obsessive disorder formation, and increased introversion (Maltby, Day, McCutcheon, Houran, & Ashe, 2006; McCutcheon, Lange, & Houran, 2002; Maltby, McCutcheon, Ashe, & Houran, 2001).

Extreme celebrity worship has also been associated with the use of less healthy coping styles (Maltby, Day, McCutcheon, Gillett, Houran, & Ashe, 2004) and increased feelings of social and interpersonal detachment (Houran, Navik, & Zerrusen, 2005). Consistent with these findings, McCutcheon, Aruguete, Scott Jr., & VonWaldner (2004) found evidence that celebrity worship may be associated with feelings of shyness and loneliness, but not associated with preference for solitude.

Furthermore, evidence has emerged suggesting a relationship between pathological celebrity worship and specific cognitive deficits, such as significant impairment in working memory capacity and decreased cognitive flexibility (Maltby, Day, McCutcheon, Martin, & Cayanus, 2004); McCutcheon, Ashe, Houran, & Maltby, 2003; Martin, Cayanus, McCutcheon, & Maltby, 2003).

The existence of these negative outcomes for extreme celebrity worship has led researcher Lynn McCutcheon and colleagues to create the Absorption-Addiction model of pathological celebrity worship, in which the cycle of celebrity worship is driven by the motive to completely surround the self with information about celebrities and the need to

focus on celebrities with an ever-increasing frequency (McCutcheon, et al., 2002; Ashe, Maltby, & McCutcheon, 2005).

The celebrity worldview. For celebrity worshippers, it appears that the worldview components of fame and celebrity are particularly important. When asked to evaluate a hypothetical celebrity worshipper, individuals who scored high on measures of celebrity worship evaluated the hypothetical celebrity worshipper significantly more positively than individuals who scored low on the celebrity worship measure (McCutcheon & Maltby, 2002). In addition, celebrity worship has been associated with greater endorsement of just-world beliefs (McCutcheon, 2003). Taken together, these findings suggest that for individuals for whom celebrities and fame are personally important, celebrity is viewed as a component of the worldview structure worth defending.

Positive celebrity worship. While much of the research has pointed to the potentially negative consequences of pathological celebrity worship, some positive benefits of milder forms of celebrity interest have been suggested (Maltby, et al., 2001). For example, the social nature of fan communities and the sharing of fan information in person and over the internet may help individuals strengthen and form friendships and promote healthy social behavior. In addition, interest in celebrities may serve as a "psychological buffer against every-day stressors" (Maltby, et al., 2001, p. 443). Furthermore, individuals who idealize celebrities may be more likely to emulate certain positive attitudes, values and behaviors held by their favorite celebrities, even those celebrities who have since died (Fraser & Brown, 2002). For some adolescents, these mild forms of celebrity idealization may be helpful in providing support through the transition to adulthood (Giles & Maltby, 2004). While these positive aspects of non-

clinical celebrity interest are not the primary focus of the present research, they support its potential to serve the positive function of symbolic immortality and thus, terrormanagement.

#### Overview of the Present Research

Three studies were conducted to test the hypotheses of this dissertation. In the first study, mortality salience was expected to increase participants' self-reported desire for fame, and their interest in celebrities (i.e., vicarious fame). That is, Study 1 was designed to support the hypothesis that people seek fame and celebrity information when their need for symbolic immortality is high. In Study 2, it was predicted that individuals who are led to believe they are more closely "related" to fame will show reductions in TMT-related effects following mortality salience. The goal of Study 2 was to further support the terror management function of celebrity fascination by showing it can fulfill symbolic immortality needs and thereby, buffer people against the usual consequences of mortality salience (i.e., worldview defense). Finally, in Study 3, it was predicted that learning that one is more likely to personally achieve fame and celebrity would moderate the effects of mortality salience (MS). Specifically, when information is provided suggesting that the personal experience of fame and celebrity is within reach, it will buffer people from worldview defense following MS. However, when achieving fame and celebrity is perceived as virtually impossible to attain, worldview defense will be a consequence of MS. Taken together, the set of studies tested the hypothesized terror management function of cultural fascination with celebrity. In so doing, another

application of TMT may be observed – one that has implications for understanding the popularity of celebrities and the quest for personal fame.

#### Study 1

Overview

Given that celebrity is predicted to represent a form of symbolic immortality, it stands to reason that attaining celebrity will be seen as a more desirable goal following reminders of death. Furthermore, when given a choice, individuals should prefer celebrity information, above other forms of information, for its death transcendent properties.

Design and Hypotheses

The design was a 2 (mortality salience: high/low) x 2 (participant gender) between subjects factorial.

Hypothesis 1: MS was predicted to increase the self-reported desire for fame and celebrity as eventual life goals. It was hypothesized that MS will lead both men and women to view fame and celebrity as more important life goals, as compared to control participants who are not reminded of death. Furthermore, participants for whom mortality was made salient should rate the specific goals of "fame" and "celebrity" as significantly more desirable than control participants. Therefore, scores on measures of the life goals of fame and celebrity will be increased for individuals who are reminded of death.

Hypothesis 2: MS was also predicted to lead individuals to rate celebrity information as more interesting and appealing. Scores on an index of celebrity interest were predicted to be higher for participants exposed to reminders of personal mortality, as compared to control participants.

Hypothesis 3: It was also predicted that MS participants would be more likely to prefer celebrity information compared to general news. Mortality salient participants were expected to select a news web site devoted to news about famous people with greater frequency, as compared to a non-celebrity news site.

#### Method

# **Participants**

430 participants (198 men, 232 women, mean age = 19.37 years) from the Rutgers introductory psychology research participant pool participated in partial fulfillment of course requirements. The sample of participants consisted of 183 Whites (43%), 26 Blacks (6%), 148 Asians (34%), 29 Latinos (7%), and 44 people (10%) who reported another ethnicity.

#### Measures

Mortality salience manipulation. Participants completed the traditional TMT mortality salience manipulation (see Appendix A; Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon, 1989). The MS manipulation consists of two open-ended questions. In the MS condition, the questions deal with thoughts and feelings regarding their personal death ("Please describe the emotions that the thought of your own death arouses in you," And "Write down, as specifically as you can, what you think will happen to you physically as death occurs and when it is over."). By contrast, the control condition questions deal with the experience of dental pain ("Please describe the emotions that the thought of dental pain arouses in you," and "Write down, as specifically as you can, what you think will happen to you physically as dental pain occurs and when it is over.")

Delay and distraction task. Given that the research in TMT has consistently demonstrated that MS manipulations emerge after a short delay (Pyszczynski, Greenberg, & Solomon, 1999; Pyszczynski, Solomon, & Greenberg, 2000), participants also completed a short distraction task following the MS manipulation. This distraction task consisted of a short reading comprehension task (see Appendix B). Participants were asked to read a brief reading passage and respond to a series of questions about the content of the passage. The reading comprehension task was followed by a math problem solving task (see Appendix C). Participants were given a set of 15 three-digit addition and subtraction problems and asked to solve the problems mentally, without the use of paper and pencil.

Measure of life goals. Participants also completed a survey of life goals (see Appendix D). A list of 15 potentially desirable life goals were listed, and participants were asked to rate the desirability of each goal along a 7-point scale ranging from not-at-all desirable (1) to extremely desirable (7).

Measure of celebrity interest. Interest in celebrity was assessed by measuring interest in one of two (fictitious) news websites that are quickly gaining popularity on the Internet. Participants were presented with brief descriptions of two websites (see Appendix E). One of the websites was described as a new source for up-to-the minute celebrity news and information, whereas the other site dealt with current news events and headlines. Participants were asked to rate how interesting and appealing each Web site seemed to be, based on the provided description, on a 7-point scale that ranged from not-at-all (1) to extremely (7). The celebrity interest index was calculated by reverse-scoring the ratings for the news website and averaging these responses with the celebrity website

interest ratings. Therefore, high scores on the celebrity interest index represented greater interest in celebrity information relative to news.

Website selection. Participants were also asked to indicate which of the two websites they would be most likely to visit (see Appendix E). This choice of website was recorded and used as a measure of preference for either celebrity or news information.

Procedure

Participants signed up for participation using the research participation website. The study was titled "Automatic Attitudes," and described as a computer survey. Each participant completed each of the measures in an individual cubicle with a desktop PC, using the Inquisit software program to administer each of the measures of the study and record all responses. After reading a brief introduction and providing informed consent, participants first completed either the MS induction or dental pain control (as determined by random assignment). Participants then completed the two delay and distraction tasks. Following these tasks, they responded to the life goals items. Participants then read and evaluated each of the website measures for the celebrity and news websites (presented in a random order), and completed the website selection item. Finally, participants answered four demographic questions (i.e., age, gender, race, and religious identification).

Participants were then thanked for their participation and fully debriefed about the nature of the study.

#### Results

Gender differences. See Table 1 for the means and standard deviations for the main variables of interest for the entire sample. Table 1 shows a significant gender difference emerged on the celebrity interest index, with women rating the celebrity

website as significantly more interesting than men, t(428) = -5.95, p < .01. In addition, there were gender differences on several life goals, with women rating the following life goals as significantly more important than men: peace, t(428) = -2.66, p < .01, personal development, t(428) = -2.05, p < .05, education, t(428) = -4.05, p < .01, travel, t(428) = -4.05, p < .01, and health, t(428) = -2.77, p < .01.

Fame and Celebrity Goal Correlation. Table 2 contains the correlations among all of the life goal measures, separated by gender. The measures of life goals for fame and celebrity were expected to correlate significantly. As predicted, fame and celebrity goals correlated significantly, r(430) = .78, p < .001.

Effect of MS on fame related life goals. According to hypothesis 1, a significant main effect for MS on fame-related life goals, such that mortality salient participants were expected to rate fame and celebrity as more important life goals. Given that the life goals of fame and celebrity were significantly correlated, the two measures were averaged to form a composite fame-goal index. No significant main effect emerged for mortality salience on this fame-goal index; mortality salient participants (M = 3.75, SD = 1.58) did not score significantly differently than control participants (M = 3.96, SD = 1.53), F(1,426) = 1.77, p = .18. The correlation between mortality salience and interest in fame was, accordingly, weak and in the opposite direction from expectations, r(430) = -0.07, p = .17.

Effect of MS on celebrity website ratings. Table 3 contains correlations between ratings of the celebrity and news websites. According to hypothesis 2, a significant main effect for MS was predicted on ratings of interest and appeal for the celebrity websites. Mortality salient participants were expected to rate the celebrity website as significantly

more interesting and appealing than control participants. No significant effect of MS emerged on ratings of the celebrity website between mortality salient (M = 4.01, SD = 1.68) and control participants (M = 3.89, SD = 1.71), F(1, 422) < 1.00, ns. Instead, significant main effects for gender and order emerged. Women (M = 4.53, SD = 1.55) rated the celebrity website as significantly more interesting than men (M = 3.28, SD = 1.61), F(1,422) = 71.73, p < .001. When presented after the news website, the celebrity website was rated as significantly more appealing (M = 4.30, SD = 1.74) than when it preceded the news website description (M = 3.61, SD = 1.58), F(1,422) = 23.81, p < .001.

Effect of MS on celebrity website selection. According to hypothesis 3, a significant main effect for MS was expected for selection of a celebrity website. Participants reminded of mortality were predicted to select the celebrity website with greater frequency as compared to control participants. No effect of MS on website selection emerged, F(1,422) < 1.00, ns. Instead, significant gender and order main effects were found. Women selected the celebrity website with greater frequency than men, F(1,422) = 38.22, p < .001. The celebrity website was selected with greater frequency if it followed the news website, F(1,422) = 14.99, p < .001.

Analysis of fearful participants. In the previous analyses, participants were grouped into MS groups based on their exposure to the MS vs. dental control manipulations. However, the content of the participants' responses to these open-ended questions were not considered. Reading their essays revealed that some participants were anxious about the prospect of dying, but others were relatively calm or even happily anticipating death. Perhaps individuals who explicitly describe being fearful of death

would be more likely to show the predicted effects for MS on the dependent variables of interest.

The responses of mortality salient participants were coded for their fear content. Participants who mentioned themes such as "fear," "anxiety," or "fearfulness" in their open-ended responses to the MS induction questions were selected for further analysis. Two raters coding the open-ended mortality salience prompt responses for explicit death content, with an inter-rater reliability estimate of  $\alpha$  = .66. 39 of the original 71 MS participants (55%) mentioned themes of fear of death in their open-ended responses, and were selected for further analysis.

In support of hypothesis 2, a significant effect emerged for MS on ratings of the celebrity website, such that "fearful" MS participants (M = 4.32, SD = 1.68) rated the celebrity website as significantly more appealing, as compared to ratings made by control participants (M = 3.86, SD = 1.73), t(343) = -2.39, p = .02. However, support for hypotheses 1 and 3 was not found after coding for fearful participants. Thus, while selecting for anxious participants was somewhat helpful for my predictions, it was not the solution to the generally null pattern of results.

# Discussion

Study 1 found partial support for one of the hypothesized relationships between MS and ratings of the appeal of fame and celebrity. MS did not significantly impact ratings of the specific life goals of achieving fame and celebrity (hypothesis 1), nor did MS lead individuals to prefer celebrity information over a control topic (hypothesis 3). A significant effect of MS on ratings of the appeal of celebrity information did emerge (hypothesis 2), but only for individuals who reported explicit fear of death.

Gender effects. One consistent finding from Study 1 was the effect of gender on interest in celebrity information. On the whole, women were more interested in celebrity information. They rated celebrity information as significantly more appealing and selected to visit a hypothetical celebrity website with greater frequency than men.

Although these gender effects were unexpected, they may partly explain the generally null findings of Study 1. While technology oriented entertainment on the whole has been traditionally been associated with young males, the specific activity of visiting celebrity websites appears to be more common among women. It is possible that a less gender-related measure of celebrity information might have allowed for the hypothesized effects of MS to emerge.

Order effects. In addition, unexpected order effects emerged on the web site variables, such that the celebrity website was consistently rated more positively and selected with greater frequency when it followed the news website. These order effects suggests there was likely a fundamental and unintended difference between the provided descriptions of the two websites. The descriptions of the websites were designed to be equal in length and appeal, and differ only in the specific subject matter. However, it is possible that the description of the celebrity website was more interesting than the news website; therefore, reading the news website description first simply highlighted this unintended difference. Future research should use manipulations that are less subject to contextual effects.

Fearful participants. Another interesting finding from Study 1 was that the predicted effect of MS on ratings of the appeal of celebrity information only emerged for individuals who explicitly reported being afraid of death. Terror management theory has

traditionally not predicted that conscious death fear is a necessary pre-requisite for the emergence of mortality salience effects. However, findings in the literature support the notion that these effects should be especially pronounced for individuals affected by concerns about death on both the conscious and unconscious levels (Pyszczynski, Solomon, & Greenberg, 2002). Nonetheless, selecting for anxious participants did not improve results for hypotheses 1 or 3; thus, a lack of anxiety cannot explain why Study 1's predictions were generally not supported.

## Study 2

Overview

Whereas Study 1 was expected to support the assumption that fame represents a form of symbolic death transcendence, Study 2 tested whether greater indirect fame (i.e., two degrees of separation from a celebrity) will suffice to fulfill that need. It was predicted that perceived proximity to celebrity would buffer individuals from the typical effects of MS on worldview defense. In other words, participants who believe they are more closely related to a celebrity should be less likely to engage in later worldview defense following reminders of death, compared with participants who are not closely related to fame.

Design and Hypotheses

The design was a 2 (MS: high/low) x 2 (celebrity proximity: close/distant) x 2 (participant gender) between subjects factorial design.

Hypothesis 1: Reminders of death typically lead individuals to defend their worldview. However, it was hypothesized that perceived proximity to fame and celebrity

would serve to bolster symbolic immortality. As a result, participants who believed they are more closely associated with a celebrity would demonstrate reduced worldview defensive behavior following mortality salience.

Hypothesis 2: It was predicted that mortality salient participants who learned they were close to a celebrity would report significantly greater positive affect in response to this information as compared to mortality salient participants who learned they were distant from a celebrity.

Hypothesis 3: It was further predicted that mortality salient participants who learned they were more closely related to a celebrity should report that this association is significantly more accurate and believable than control participants. As described in the introduction, people are more willing to believe positive (and status enhancing) information about the self following MS, compared with controls (e.g. Kasser & Sheldon, 2000; Mikulincer & Florian, 2002).

#### Method

# **Participants**

134 participants (57 men, 77 women, mean age = 19.77 years) from the Rutgers introductory psychology research participant pool participated in partial fulfillment of course requirements. The sample of participants consisted of 64 Whites (48%), 10 Blacks (8%), 40 Asians (30%), 8 Latinos (6%), and 12 people (8%) who reported another ethnicity.

### Procedure

Participants signed up for participation using the research participation website.

The study was titled "Social Cognition," and described as a computer survey. Each

participant completed each of the measures in an individual cubicle with a desktop PC, using the Inquisit software program to administer each of the measures of the study and record all responses.

Celebrity proximity manipulation. After reading a brief introduction and providing informed consent, participants were engaged in a celebrity manipulation, designed to influence their perceived proximity to a highly regarded celebrity (see Appendix I). Participants were told the following:

"The Kevin Bacon Game ("Six Degrees of Bacon") has recently become a popular phenomenon of interest within pop culture. Few people know, however, that this game is based on existing theories within the psychological literature.

Using data collected over the last 20 years by the Interpersonal Connectivity Lab (ICL) at the University of Virginia, we can now find your personal degree of association with a person you select. You will be asked to provide some personal information about yourself, which will allow the program to link you with other individuals. In doing so, an interconnected personal matrix will be created; this information will be compared with the data in the ICL Database.

The information you provide will be held as confidential, and will be deleted after the program calculates your degree of association."

Participants then received a list of 10 celebrities (see Appendix I), and were asked to choose the one celebrity that they would like to learn about their connectedness to. The target celebrities were chosen based on previously collected pilot data about which celebrities were most admired among a sample of 253 males and female introductory psychology students. The five most commonly reported male and female celebrities were included for use in Study 2. For example, Brad Pitt and Tom Hanks were popular male celebrities, and Angelina Jolie and Oprah Winfrey were popular female celebrites. It was expected that male and female participants would choose different celebrities, but otherwise, no gender differences for celebrity choice were hypothesized.

After choosing their celebrity, participants were asked to provide answers to a set of personal questions, ostensibly to allow the program to determine the degree of relationship between the individual and the target celebrity (see Appendix J). Sample items include "Please provide the full names of your three closest friends, and the state they are from," and "Please enter the full names of any celebrities you have personally met". In reality, the information was not used in any fashion, as the degrees of separation from the chosen celebrity were randomly assigned by the computer program.

Following the collection of personal information, participants were required to wait to allow the program time to calculate the degree of connection to the chosen celebrity. The degree of relationship was then reported to the participants. Participants in the "high fame relation" condition were told that only two degrees of separation exist between them and the celebrity, whereas participants in the "low fame relation" were told that 20 degrees of separation exist. This distinction was further highlighted by explaining that two degrees of separation meant that the individual has a very good chance of meeting the celebrity in their lifetime, whereas 20 degrees indicated the individual had virtually no connection with the chosen celebrity and almost no chance of meeting this celebrity (see Appendix K).

After receiving the celebrity proximity information, participants then completed either the MS induction or dental pain control (as determined by random assignment; see Appendix A). Next, participants completed the two delay and distraction tasks, as in Study 1 (see Appendix B and C). Following these tasks, participants responded to the worldview defense measures as described previously. After completing the worldview defense measures, participants responded to the three manipulation check items. Finally,

participants answered four demographic questions (i.e., age, gender, race, and religious identification). Participants were then thanked for their participation and fully debriefed about the nature of the study.

#### Measures

Worldview defense measure. Participants completed a measure of worldview defensive behavior (see Appendix F), under the cover story of an opinion survey. This measure was adapted from a previous study where it was used effectively as a threat manipulation (Hodgins, Brown, & Carver, in press, Study 1). Participants read an article concerning opinions of local business owners and university administration regarding recent behavior on the part of Rutgers undergraduate students. The article concluded that Rutgers undergraduate students are largely to blame for an increase in the rate of property vandalism in the community, and that strict sanctions should be imposed on all Rutgers students as a result. Participants were asked to rate the degree to which they agree with the conclusions stated in the article. Because participants were currently Rutgers undergraduate students, it was predicted that worldview defensive responses to this article would be reflected as (a) stronger disagreement with blaming Rutgers students for vandalism, and (b) greater disagreement with the proposed sanctions by the university.

Although this measure has not been used specifically in TMT research, considerable past research shows that people under MS show stronger defense of their ingroup, compared with unthreatened controls (e.g., Greenberg et al., 1990; Ochsmann & Mathy, 1994; McGregor et al., 1998).

Celebrity proximity feeling measure. Participants' feelings regarding the results of the celebrity proximity manipulation were assessed (see Appendix G). A list of six

possible feelings about the results were displayed (e.g., "happy," "proud," "sad," "disappointed"), and participants were instructed to rate the degree to which they experienced each of the possible feelings about the results of the celebrity proximity program along a 7-point scale ranging from *not-at-all* (1) to *extremely* (7). These items were combined (after recoding) to form the *celebrity emotion index*, on which high scores indicate more positive feelings regarding the celebrity proximity information ( $\alpha = .79$ )

Manipulation checks. Manipulation checks were included to assess the degree to which the celebrity proximity manipulation was effective (see Appendix H). Items include "How accurate do you feel are the celebrity association results?" It was expected that all participants would pass these manipulation checks.

## Results

Gender differences. See Table 4 for the means and standard deviations for the main variables of interest for the entire sample. Table 4 also displays the means and standard deviations for the main variables in Study 2, separately by gender. Significant gender differences emerged on the celebrity emotion index item for happiness, with men reporting significantly greater happiness with their celebrity proximity results than women, t(132) = 2.42, p = .02.

Effect of MS on worldview defense. Table 5 contains correlations between worldview defense measures, separated by gender. Following a well-established finding in the terror management literature, a significant main effect for MS was predicted to emerge on worldview defense. Participants reminded of mortality should demonstrate greater amounts of worldview defense than control participants. A significant main effect

for MS indeed emerged, but with mortality salient participants (M = 3.83, SD = 1.28) engaging in less worldview defense than control participants (M = 4.25, SD = 1.12), F(1, 130) = 4.03, p = .047. This effect is in opposition to the predicted effect because mortality salient participants were expected to show greater worldview defense than control participants.

Effect of celebrity association on worldview defensive behavior following mortality salience. According to hypothesis 1, a significant interaction between celebrity proximity and MS was predicted on the measure of worldview defense. Participants who were told they were closely related to a chosen celebrity were expected to demonstrate significantly less worldview defense than participants who were more distantly related to celebrity. The predicted interaction between degree of celebrity association and MS did not emerge. The amount of worldview defense exhibited by high celebrity association (M = 3.89, SD = 1.30) and low celebrity association (M = 3.75, SD = 1.26) mortality salient participants did not differ significantly from control participants in the high celebrity association (M = 4.31, SD = 1.08) and low celebrity association (M = 4.12, SD = 1.19) conditions, F(1,130) < 1.00, ns.

Effect of degree of celebrity association on feelings regarding celebrity association. Table 6 contains the correlations among measures of feelings regarding the celebrity association results, separated by gender. Participants who believed they were more closely associated with a chosen celebrity were expected to hold more positive feelings regarding this celebrity association. The relationship between degree of celebrity association and celebrity association feelings was not significant, though it was in the predicted direction, with participants with high celebrity association (M = 4.71, SD = .68)

showing more positive feelings regarding these results than participants in the low celebrity association condition (M = 4.49, SD = .73), F(1,130) = 3.06, p = .08.

Effect of celebrity association on feelings regarding celebrity association results following mortality salience. According to hypothesis 2, a significant interaction between the degree of celebrity association and MS was predicted on the measure of feelings regarding the celebrity association results. Participants who believed they were more closely related to a chosen celebrity were predicted to demonstrate more positive feelings regarding this association following mortality salience, as compared to control participants. The predicted interaction between celebrity association and MS on feelings regarding celebrity association was not found, F(1,130) = .44, ns.

Effects of degree of celebrity association on credibility ratings of celebrity association following mortality salience. Table 7 contains correlations among measures of the accuracy and believability of the celebrity association results, separated by gender. Hypothesis 3 predicted a significant interaction between MS and degree of celebrity association on ratings of the accuracy and believability of the celebrity association results. Given the significant correlation between ratings of accuracy and credibility (r(134) = .78, p < .01), these ratings were combined to form a *celebrity association* credibility index. A marginally significant effect for MS emerged, with mortality salient participants (M = 3.99, SD = 1.67) rating the results of the celebrity association manipulation as more credible than control participants (M = 3.45, SD = 1.65), t(132) = 1.88, p = .06.

The measures of accuracy and believability were also analyzed separately. With regard to accuracy ratings, a main effect for MS emerged. Mortality salient participants

(M=4.27, SD=1.80) rated the celebrity association results as significantly more accurate, as compared to ratings made by control participants (M=3.70, SD=1.94), F(1,130)=6.62, p=.01. A main effect for degree of celebrity association also emerged; individuals in the high celebrity association condition (M=3.07, SD=1.60) rated the celebrity association results as significantly less accurate than individuals in the low celebrity association condition (M=5.11, SD=1.56), F(1,130)=61.22, p<.01. However, the predicted interaction between MS and degree of celebrity association on accuracy ratings did not emerge, F(1,130) < 1.00, ns.

With regard to believability ratings of the celebrity association results, main effects for MS and degree of celebrity association emerged. Mortality salient participants (M=3.72, SD=1.76) rated the celebrity association results as significantly more believable, compared to ratings made by control participants (M=3.21, SD=1.55), F(1,130)=5.82, p=.02. A main effect for degree of celebrity association also emerged; individuals in the high celebrity association condition (M=2.79, SD=1.35) rated the celebrity association results as significantly less believable than individuals in the low celebrity association condition (M=4.30, SD=1.67), F(1,130)=35.67, p<.01. However, the predicted interaction between MS and degree of celebrity association on accuracy ratings did not emerge, F(1,130)<1.00, ns.

Analysis of fearful participants. As with Study 1, the open-ended responses to the mortality salience manipulation were content coded for their degree of explicit death concern. The primary analyses for Study 2 were re-run, comparing "fearful" MS participants with control participants. However, content coding the open-ended responses

did not reveal any additional effects; the same pattern of main effects described previously was found.

#### Discussion

In sum, Study 2's hypotheses were not supported, whether or not fearful participants were used in the analyses. As in Study 1, there was an unexpected gender effect such that men were significantly happier with the outcome of the celebrity association results than women. Because this finding was not dependent on MS or degree of celebrity association, it is difficult to explain. Because gender did not interact with MS or celebrity association, this gender difference does not appear to explain why Study 2's findings were weak and, in some cases, opposite to predictions.

defense; however this effect was in the *opposite* direction from what was predicted. Participants for whom mortality was salient engaged in significantly less worldview defense, as compared to control participants. This pattern of effect is in direct opposition to what has traditionally been found in the TMT literature. As stated in the introduction, the worldview defense measure I used has not been validated by TMT researchers, but has successfully invoked threat in the past (Hodgins, Brown, & Carver, in press). Thus, it is difficult to explain why it performed in Study 2 as it did. One possibility is that I assumed participants would identify with Rutgers (i.e., that Rutgers students would be their ingroup). In Study 3, I will assess identity as a potential covariate.

It might also be the case that the specific content of the worldview defense measure may not have sufficiently engaged participants' personal worldview. While it is likely that being a Rutgers student was an important part of the participants' worldview, the specific criminal behavior described in the worldview manipulation might be rare enough for participants to attribute it to some out-group. Future research should investigate whether different measures of worldview defense might allow for the predicted effects of mortality salience and celebrity association to emerge.

Effect of MS on accuracy and believability ratings. MS was also associated with greater accuracy and believability ratings of the celebrity association manipulation. This main effect was not qualified by the expected interaction between MS and degree of celebrity association. Individuals who were told they were more closely related to a given celebrity were expected to rate this association as significantly more accurate and believable following reminders of death. Considerable past research shows that people are more willing to believe positive information about the self following MS (e.g. Dechesne, Janssen, and van Knippenberg, 2000; Mikulincer & Florian, 2002). In this case, people believed any information about their celebrity association more following MS. Perhaps, for some people, celebrity association is not "good news" (i.e., a status enhancer) as I expected it to be. To test this possibility, scores on the credibility index were regressed on mortality salience, degree of celebrity association and celebrity emotion index scores. A significant three-way interaction between these three factors on the credibility index did not emerge,  $\beta = .11$ , ns.

The lack of support for the primary hypotheses of Study 2 suggest that the celebrity association manipulation employed might not be powerful enough to provide the protection of symbolic immortality against the threat posed by death reminders.

Therefore, in Study 3, a more direct and personal manipulation of fame and celebrity was utilized, with the hope that symbolic immortality would be more sufficiently bolstered. In

addition, I did not assess Rutgers identity in Study 2. For students low on Rutgers identity, their agreement with business owners might be stronger than for students high on this variable (i.e., they might show decreased worldview defense instead of increased defense following MS).

# Study 3

Study 2 was designed to show that people who experience vicarious fame (through celebrity proximity) would experience vicarious symbolic death transcendence. Participants were made to believe that they were more or less closely related to a chosen celebrity. The belief that one is more closely connected to a celebrity through a network of friends and relatives was expected to serve a terror management function following reminders of personal mortality. Study 3 sought to expand on the predictions of Study 2, specifically by manipulating individual's probability of personally experiencing fame and celebrity. This represents a much more direct manipulation of fame and celebrity, one that more closely matches the way fame and celebrity are experienced in the real world. It was expected that the belief that one is more likely to personally experience fame and celebrity should serve to reinforce the buffering effect of celebrity as a form of symbolic immortality, protecting the self against the existential threat posed by acute reminders of personal mortality.

Design and Hypotheses.

The design of the study was a 2 (MS: high/low) x 2 (celebrity probability: high/low) x 2 (participant gender) between subjects factorial design.

Hypothesis 1: It was hypothesized that the personal experience of fame and celebrity would serve to bolster symbolic immortality. As a result, participants who believed they are more likely to become a celebrity should demonstrate reduced worldview defensive behavior following MS. A measure of Rutgers identity was included for use as a covariate in this test.

Hypothesis 2: It was predicted that mortality salient participants who learned they were more likely to become a celebrity would report significantly greater positive affect as compared to mortality salient participants who learned they were unlikely to personally experience fame.

<u>Hypothesis 3</u>: It was further predicted that mortality salient participants who learned they were more likely to experience celebrity should report that this celebrity probability information is significantly more credible than control participants.

## Method

## **Participants**

132 participants (79 men, 53 women, mean age = 19.58 years) from the Rutgers introductory psychology research participant pool participated in partial fulfillment of course requirements. The sample of participants consisted of 61 Whites (46%), 16 Blacks (12%), 40 Asians (30%), 4 Latinos (3%), and 11 people (8%) who reported another ethnicity.

### Procedure

Participants signed up for participation using the research participation website.

The study was titled "Social Cognition," and described as a computer survey. Each participant completed each of the measures in an individual cubicle with a desktop PC,

using the Inquisit software program to administer each of the measures of the study and record all responses.

Celebrity probability manipulation. After reading a brief introduction and providing informed consent, participants were engaged in a celebrity probability manipulation, designed to inform them of their personal probability to become famous in their lifetime (see Appendix N). Participants were told the following:

"Scientists have recently embarked on research designed to understand the phenomenon of fame and celebrity. Research has identified several factors that are strongly related to an individual's probability to experience a significant amount of fame and celebrity within their lifetime.

Using data collected over the last 20 years by the Interpersonal Connectivity Lab (ICL) at the University of Virginia, we can now accurately estimate your personal probability of becoming famous. You will be asked a series of true-false questions, which will allow the program to compare you to the ICL database of celebrity information.

The responses you provide will be held as confidential, and will be deleted after the program calculates your personal probability of becoming famous."

Participants then responded to a set of 20 true/false questions (see Appendix O), ostensibly to allow for the computer program to determine the individual's probability of becoming famous. In reality, most of the questions were designed to be deliberately ambiguous with respect to predicting celebrity potential to increase the credibility of the feedback. For example, *any* response to "When I enter a room, I typically look right to left" could be interpreted as reflecting celebrity potential (or not). As with all measures, the questions were presented in a randomized sequence, to prevent order effects. After responding to the set of questions, participants were asked to wait while the program calculated their personal probability of becoming famous. After a brief delay, the results of the celebrity probability program were then displayed (see Appendix P). Participants

in the "high celebrity probability" condition were informed that they had an "85.7%" chance of becoming famous, whereas participant in the "low celebrity probability" condition were told that they had only a "2.7%" chance of becoming famous.

After receiving the celebrity proximity information, participants then completed either the MS induction or dental pain control manipulation (as determined by random assignment; see Appendix A). Next, participants completed the two delay and distraction tasks, as in Study 1 and 2 (see Appendix B and C). Following these tasks, participants responded to the worldview defense measures used in Study 2 (see Appendix F). After completing the worldview defense measures, participants completed the measure of Rutgers identity and responded to the manipulation check items. Finally, participants answered four demographic questions (i.e., age, gender, race, and religious identification). Participants were then thanked for their participation and fully debriefed about the nature of the study.

### Measures

Worldview defense measure. Participants completed the same measure of worldview defensive behavior used in Study 2 (see Appendix F).

Celebrity probability feeling measure. Participants' feelings regarding the results of the celebrity probability manipulation were assessed (e.g., happy, proud, disappointed, and anxious; see Appendix L). A list of six possible feelings about the results were displayed, and participants were instructed to rate the degree to which they experienced each of the possible feelings about the results of the celebrity probability program along a 7-point scale ranging from *not-at-all* (1) to *extremely* (7). These items were combined

(after recoding) to form the *celebrity probability emotion index*, on which high scores indicate more positive feelings regarding the celebrity probability information ( $\alpha = .76$ )

Rutgers identity. Individuals were also asked to respond to a single item measure designed to assess participants' sense of Rutgers identity. Participants were presented with the following item: "To what degree is being a Rutgers student part of your identity?" They then rated their agreement with this item along a 7-point scale ranging from not-at-all (1) to extremely (7). Responses on this item were included as a covariate in all subsequent analyses.

Manipulation checks. Two items were included to assess the degree to which the celebrity probability manipulation was thought to be accurate and believable (see Appendix M). It was expected that all participants would pass these manipulation checks (i.e., score above 4, the midpoint of the scale).

## Results

Gender differences. See Table 8 for the means and standard deviations for the main variables of interest for the entire sample. No significant simple gender differences emerged on any of the main variables of interest in Study 3.

Effect of MS on worldview defense. Table 9 contains correlations between worldview defense measures, separated by gender. Following a well-established finding in the terror management literature, a significant main effect for MS was predicted to emerge on worldview defense. Participants reminded of mortality should demonstrate greater amounts of worldview defense than control participants. No significant main effect for MS emerged; mortality salient participants (M = 4.12, SD = 1.46) did not behave differently than control participants (M = 3.87, SD = 1.14), F(1, 124) < 1.00, ns.

When Rutgers identity was used as a covariate, results did not improve, F(1, 122) = .69, ns. In addition, Rutgers identity did not interact with MS to predict worldview defense, F(1,118) < 1.00, ns.

According to hypothesis 1, a significant interaction between celebrity probability and MS was predicted on the measure of worldview defense. Participants who were told they were more likely to become famous were expected to demonstrate significantly less worldview defense than participants who were less likely to become famous. The predicted interaction between degree of celebrity probability and MS did not emerge. In the MS condition, the amount of worldview defense exhibited by high celebrity probability (M = 4.16, SD = 1.48) and low celebrity probability (M = 4.09, SD = 1.46) participants did not differ significantly from control participants in the high celebrity probability (M = 4.01, SD = 1.13) and low celebrity probability (M = 3.71, SD = 1.15) conditions, F(1,122) < 1.00, ns. Including Rutgers identity as either a covariate or a moderator variable did not improve results, all Fs(1, 122) < 1.00, ns.

Effect of degree of celebrity probability on feelings regarding celebrity probability results. Table 10 contains the correlations among measures of feelings regarding the celebrity probability results, separated by gender. Participants who believed they were more likely to achieve personal celebrity were expected to hold more positive feelings regarding this celebrity probability information. The relationship between degree of celebrity probability and celebrity probability feelings was significant, with participants with high celebrity probability (M = 5.02, SD = .90) showing

significantly more positive feelings regarding these results than participants in the low celebrity probability condition (M = 4.17, SD = .85), F(1,122) = 30.36, p < .001.

Effect of MS on feelings regarding celebrity probability. According to hypothesis 2, a significant interaction between the degree of celebrity probability and MS was predicted on the measure of feelings regarding the celebrity probability results. Participants who believed they were more likely to achieve celebrity were predicted to be happier about this news following reminders of personal mortality, as compared to control participants. The predicted interaction between celebrity probability and MS on feelings regarding celebrity probability was not found, F(1,122) < 1.00, ns.

Effects of MS and degree of celebrity probability on credibility ratings of celebrity probability information. Table 11 contains correlations among measures of the accuracy and believability of the celebrity probability results, separated by gender. Hypothesis 3 predicted a significant interaction between MS and degree of celebrity probability on ratings of the accuracy and believability of the celebrity probability results. Given the significant correlation between ratings of accuracy and credibility, r(132) = .76, p < .01, these ratings were combined to form a *celebrity probability credibility index*.

Mean comparisons revealed high (M=2.81) and low (M=2.90) MS group members did not differ on ratings of result credibility, F(1,130) < 1.00, ns. Likewise, low celebrity probability (M=2.90) and high celebrity probability (M=2.81) group members did not differ in their ratings of celebrity result credibility, F(1,130) < 1.00, ns. Furthermore, no significant interaction emerged between MS and celebrity probability on the celebrity probability credibility index, F(1,128) = 1.28, ns.

Effect of MS and celebrity probability on Rutgers identity. A measure of Rutgers identity was included for use as a covariate in the primary analyses of Study 3. However, given that this Rutgers identity measure was assessed after the MS manipulation, it is also possible that self-reported Rutgers identity might have served as an alternative function of worldview defense. That is, increased investment in a specific worldview, namely Rutgers identity, following a reminder of death.

A marginally significant main effect for degree of celebrity probability emerged for Rutgers identity; participants with low celebrity probability (M = 5.25, SD = 1.38) reported greater identification with Rutgers identity than participants in the high celebrity probability condition (M = 4.97, SD = 1.52), F(1,122) = 3.25, p = .074.

Furthermore, a significant interaction between degree of celebrity probability and gender emerged, F(1,122) = 9.91, p < .01. In the high celebrity potential condition, men (M = 5.18, SD = 1.45) and women (M = 4.68, SD = 1.59) did not differ significantly in their Rutgers identity, t(66) = 1.34, ns. However, in the low celebrity potential condition, women reported stronger Rutgers identity (M = 5.92, SD = 0.81) than did men (M = 4.82, SD = 1.50), t(61) = -3.36, p < .01.

This interaction was also investigated by examining the mean differences on Rutgers identity within gender groups. For men, low celebrity (M = 4.82, SD = 1.50) and high celebrity (M = 5.18, SD = 1.45) probability individuals did not differ significantly on Rutgers identity, t(76) = -1.08, ns. However, women of low celebrity probability (M = 5.92, SD = 0.81) reported significantly higher Rutgers identity than high celebrity probability women (M = 4.68, SD = 1.59), t(51) = 3.52, p = .001. Because, in Study 1, women showed more interest in celebrities than men, I interpret these differences to

suggest that under a different kind of threat (low celebrity potential), women defended their worldview more than men did (in this case, their identification with Rutgers). Whereas, when women felt they had celebrity potential, their need for their Rutgers identity was decreased.

Analysis of fearful participants. As with Studies 1 and 2, the open-ended responses to the mortality salience manipulation were content-coded for their degree of explicit death concern. Two raters coding the open-ended mortality salience prompt responses for explicit fear content, with an inter-rater reliability estimate of  $\alpha$  = .71. Of the 67 original MS participants, 31 (46%) were selected for further analysis. The primary analyses for Study 3 were re-run, comparing "fearful" MS participants with control participants.

Comparison of "fearful" MS participants with controls revealed one additional significant effect that did not previously emerge. A significant main effect for MS emerged on positive feelings regarding the celebrity probability information; "fearful" MS participants (M = 5.07, SD = .90) held significantly more positive feelings regarding celebrity probability information than control participants (M = 4.55, SD = 1.02), F(1,86) = 5.52, p = .02. However, this increase in positive affect regarding the personal probability of achieving celebrity was not related to the specific probability of celebrity. Being told one has a low (2.7%) or high (85.7%) chance of becoming a celebrity was viewed as equally positive following a reminder of death. These results are surprising but they may indicate that being told one has any chance of being a celebrity may be comforting to individuals (i.e., 2% is greater than zero).

Finally, no other newly significant main effects or interactions emerged on the remaining Study 3 analyses.

### Discussion

In sum, the primary hypotheses of Study 3 were not generally supported, whether or not fearful participants were used in the analyses. However, some interesting effects emerged and are discussed below.

Effect of MS on feelings regarding celebrity probability information. Individuals who were afraid of death following a mortality salience reminder viewed celebrity probability information as significantly more positive than control participants. Although speculative, it could be that this finding suggests that merely being told one has *any* chance of obtaining celebrity may be comforting to individuals threatened by death. If so, this effect is consistent with terror-management theory.

Effect of celebrity probability and gender on Rutgers identity. Looking at scores on self-reported Rutgers identity, some interesting findings were observed. First, individuals who were told they had a low probability of achieving celebrity reported that being a Rutgers student was a greater part of their sense of identity, as compared to high celebrity probability individuals. Given that an increased probability of achieving celebrity was expected to bolster the protective worldview, this finding is consistent. Individuals who are told they are more likely to achieve celebrity should be less likely to seek further venues for worldview reinforcement, whereas individuals who are told they are less likely to achieve celebrity should demonstrate a relatively greater need for further protection. This theoretically consistent pattern of behavior is evident in the significant finding described above. However, it is important to note that this effect was only

marginally significant, and was not related to mortality salience. A significant interaction between gender and celebrity probability also emerged. For men, the likelihood of achieving celebrity did not motivate the need to affirm an institutional affiliation. However, women who are told they are less likely, rather than more likely, to achieve celebrity demonstrated a significant increase in affirmation of Rutgers identity. As was noted above, it may be the case that celebrity is viewed differently by women and men. For men, there are likely a multitude of venues for achieving power and status, of which celebrity is only one possibility. Therefore, receiving feedback that one is not likely to achieve significant fame and celebrity is not particularly damaging to the sense of self. However, for women, fame and celebrity may be viewed as a particularly rare and important means for achieve social status. Thus, receiving feedback that states one is not likely to achieve celebrity may be viewed as threatening; as a result, women may be more prone to invest in other protective structures, such as academic identity. Further research should be conducted to investigate the possibility of gender differences in how celebrity and fame are perceived. However, because these effects were not dependent on mortality salience, they are not directly derived from TMT.

#### General Discussion

Several key findings emerged from the present research. First, Study 1 showed some support for the notion that people use fame and celebrity in response to reminders of death. For individuals under mortality salience, celebrity information became significantly more appealing as compared to a control topic, provided they feared death. Furthermore, in Study 3, individuals under mortality salience who feared death were significantly happier to learn they had any chance of achieving fame and celebrity,

compared with controls. The goal of Study 2 was to further support the terror management function of celebrity fascination by showing it can fulfill symbolic immortality needs and thereby, buffers people against the usual consequences of MS (i.e., worldview defense). Support for this hypothesis was not found. Nonetheless, the present research represents an important first step toward understanding the possible terror management function served by the social structures of fame and celebrity, as described below.

## Implications of the Current Research

The present three studies were designed to demonstrate that celebrity and fame serve an important terror management function in satisfying the need for symbolic immortality. Celebrities are likely viewed as heroic as they have transcended the limitations imposed by mortality through the symbolic immortality benefits of fame. By virtue of their placement in this cultural hero system, celebrities serve as a powerful instantiation of Becker's notion regarding "objects of primary value in the universe." Idealization of celebrities, therefore, may allow individuals to attain some degree of immortality by virtue of association of the self with an immortal entity. In this way, celebrities may serve to protect the self against the existential threat posed by reminders of death.

Study 1's findings lend some support to the notion that people's thirst for information about celebrities may serve an important psychological function. That is, the need to protect ourselves against the threat posed by death and the need to achieve a degree of symbolic immortality may be partially fulfilled by vicarious celebrity and fame. Study 3's findings are also suggestive in that people who feared death were happier about

receiving news that they were potential celebrities (even if the probability was relatively low). Thus, there was some support for the idea that the desire for fame reflects a need for symbolic immortality.

The present research may have interesting and potentially dangerous implications. On the one hand, our need for cultural heroes to serve as "objects of primary value" lead us to hold some truly deserving individuals in high esteem. Figures such as Mahatma Gandhi and the Dalai Lama represent a type of "global celebrity," achieved through their actions and standings as positive role models for millions of individuals, regardless of race, color or creed. On the other hand, celebrity and fame has also been achieved through less substantial and often more dubious means. Stars of music, movies, and sports, whose primary products are entertainment, are often idealized to a tremendous extent. This idealization has significant financial implications, as these celebrities are often paid exorbitant amounts of money for their work. As a result, many individuals see celebrity of any type as a path toward certain financial wealth, and are drawn away from other (often less financially lucrative) careers that may have more direct social benefits, such as research careers in medicine and the sciences. Over-idealizing people for trivial reasons (e.g., because they are models or American Idol contestants) likely carries a cost for the culture at large, even while it may fulfill individuals' need for vicarious symbolic immortality.

#### Limitations

An important issue that must be addressed concerns the use of the math distraction task. Prior research on worldview defensive responses to mortality salience has demonstrated that these defensive responses are more likely to occur when

individuals are in an experiential mode of thought, as compared to a rational mode of thought (Simon, Greenberg, Harmon-Jones, Solomon, Pyszczynski, Arndt et al., 1997). Given the nature and difficulty of the mental math distraction task, it is likely that this task placed cognitive demands on participants, rather than mere distraction, thus shifting these participants into a rational mode of thought. Since all three experiments employed the same delay and distraction tasks, the unintended shift in thought mode produced by the math task probably accounts for the lack of support for mortality salience producing worldview defensive behavior. Future research will employ less cognitively demanding distraction tasks.

The present research was limited by the use of one MS manipulation and worldview defense measure. It is important to note that both MS and worldview defense have been measured in multiple ways, with the same pattern of results found across several different methods (Rosenblatt et al, 1989; Greenberg, Pyszczynski et al, 1990; Pyszczynski et al, 2002). The measures were chosen for use in the present research for two primary reasons. First, they represent the "traditional" way of manipulating and measuring the effects of MS. In particular, the MS manipulation is "tried and true" and provides a direct link to previous research on TMT. While the worldview defense measure has not been used in TMT research before, it is similar to other such measures and has been shown to be sensitive to self-esteem threat in the past (e.g. Greenberg, Simon, et al., 1992, Study 2; Harmon-Jones et al., 1997; Arndt & Greenberg, 1999). Second, these measures were readily implemented in a laboratory setting. Future research would seek to support the hypothesized effects using other MS manipulations and worldview defense measures.

As noted, Study 2's predictions were not supported. But there are important limitations for Study 2 that must be considered. First, the specific set of celebrities chosen as targets to be "close to" (or not) may not have been ideal. While the celebrities chosen were the most commonly admired celebrities out of a pilot study sample of 253 individuals, it is certainly possible that they were not particularly admired by Study 2's participants. A different methodological approach, one which allows for more individual choice of celebrities to be associated with, might have revealed significant effects for the celebrity association manipulation.

The "Kevin Bacon" manipulation employed in Study 2 produced results that the participants viewed as being low in both accuracy and believability. It was assumed that participants understood the concept of "degrees of separation," however, given the age of the research sample, this assumption may have not been met. Future research should employ a more clearly defined description of the concept of "degrees of separation", as well as manipulation checks to probe for understanding of this concept.

Furthermore, the use of 2 degrees of separation in the High Celebrity Association condition may not have been credible, as this would imply that someone close to you is directly associated with a celebrity. The use of 3 or 4 degrees of separation might have produced higher ratings of credibility, without handicapping the predicted priming effect for celebrity association.

Another research limitation may lie in the age and demographics of the potential participant pool. As most participants were college-aged students (18-22 years old), they may hold significantly different patterns of thought and expectations about fame and celebrity than an older sample of individuals. For younger people, fame and celebrity

may seem a more "possible" outcome, as they are still shaping their future careers and interests, whereas older individuals may feel more secure and fixed in the path of their life. For these older individuals, fame and celebrity may hold a different position in their hierarchy of outlets for symbolic immortality. Future research should investigate potential differences in fame and celebrity idealization across the lifespan.

The primary language of participants must also be considered as a possible limitation. It was assumed that participants were fluent in English and able to understand all of the measures and manipulations employed in the research. However, given the tremendous diversity of the participant population at Rutgers, it is certainly possible that participants were included for whom English is not their native language. Non-native English speakers may not fully understand the nuances of the wording of mortality salience prompts or worldview defense measures; as a result, their responses to these items may not reflect their actual feelings about the topics presented. Future research will include items designed to identify non-native English speakers.

Another possible limitation of the present research is the area of the country where the research was conducted. The present studies used participants who are close to New York, a major metropolitan area where celebrities may be encountered fairly often. As a result, celebrities may not be idealized in the same way as they might by people in the Midwest, for example. For individuals who are from areas of the country where celebrities are not often directly encountered, the only interaction that people have with celebrities is by watching them in films or on television. Future studies should seek to determine whether geographical or social group differences exist in the tendency toward and nature of celebrity idealization.

#### Future Research

Although some support emerged for the terror management functions of fame and celebrity, the findings were scant and there remain several possible future directions.

Fame and celebrity were operationalized in a more abstract and indirect method than they are likely to be experienced in the real world. Indirect manipulations of an individual's probability to experience fame and celebrity are qualitatively different than the actual experience of fame and celebrity in a real life situation. It would be interesting to conduct a study whereby participants are given the opportunity to experience fame and celebrity in a more natural setting, such as being asked for an autograph or being "mistaken" for a famous individual.

It may also be the case that fame and celebrity as sources of symbolic immortality are only relied upon by individuals who do not already possess a more effective means for achieving immortality. For highly religious individuals, it is possible that celebrity "worship" may actually be viewed as counter to their notions of right and wrong (According to the Biblical first commandment, "Thou shalt worship no other gods but me.") Future research should identify these other common venues for obtaining symbolic immortality, and attempt to understand where fame and celebrity fit into some larger hierarchy of immortality venues.

The celebrity association manipulation employed in Study 2 used a set of celebrities that were found to be highly admired among a sample of college aged participants. The set of celebrities represents a diverse group in age and ethnicity; however, the sample shared the common characteristic of currently being alive. Given that the heroic nature of symbolic immortality attributed to celebrities is assumed to be

dependent on the quality of their post-mortem legacy, it stands to reason that dead celebrities should provide the greatest benefit in providing the living with symbolic immortality. Future research should investigate the terror management function of dead celebrities, whose symbolic immortality is readily apparent.

The present research also has interesting implications for celebrities themselves. If the social structures of fame and celebrity represent powerful means to achieve symbolic immortality, then individuals who exist in a constant state of celebrity should be less susceptible to the effects of MS. A study using a sample of celebrities should reveal that celebrities are dispositionally better defended against the threat of death than non-celebrities. However, as Giles (2000) notes, celebrities may also be more prone to experience problems such as privacy concerns and feelings of loneliness, suggesting that the study of celebrities is likely to be a complicated endeavor. Nevertheless, the present research offers a promising initial step toward understanding the possible larger social-psychological function of our cultural fascination with celebrity.

### Conclusion

The present research provided some experimental support for the function of fame and celebrity within the terror management theoretical framework. In Study 1, it was demonstrated that people view celebrity information more favorably when their need for symbolic immortality is high. Similarly, Study 3 demonstrated that people evaluate information suggesting that the personal experience of fame and celebrity is even remotely possible more favorably following reminders of death, compared with a control condition. Although there were disappointing aspects of the research findings, the present program represents a promising step toward understanding the hypothesized terror management function of cultural fascination with celebrity.

Table 1								
Means and Standard Deviations for Study 1 Variables for the Whole Sample and Separately by Gender	ariables fo	or the Wh	ole Samp	le and Se	parately b	oy Gendel	<u>.</u>	
	Whole	Whole Sample	Men	uI	Women	<u>ien</u>		
	M	SD	$\Sigma$	SD	M	SD	t	d
Life Goals								
Happiness	6.79	.50	6.75	.51	6.83	.50	-1.65	.10
Peace	6.11	76.	5.98	1.05	6.23	68:	-2.66	.01*
Wealth	5.67	1.11	5.60	1.13	5.74	1.09	-1.27	.21
Self-Awareness	90.9	96:	5.96	96.	6.03	96:	99:-	.51
Fame	4.00	1.64	4.13	1.66	3.89	1.61	1.48	.14
Celebrity	3.70	1.66	3.83	1.69	3.59	1.63	1.51	.13
Desire For Meaning	5.94	1.02	5.90	1.08	5.98	76.	75	45.
Having Friends	6.32	06.	6.38	8.	6.27	.94	1.34	.18
Career	6.33	98.	6.24	.91	6.40	.81	-1.91	90.
Personal Development	6.33	77.	6.25	.82	6.41	.73	-2.05	*40:

Table 1 continued

Means and Standard Deviations for Study 1 Variables for the Whole Sample and Separately by Gender

	Whole Sample	<u>sample</u>	Men	<b>C</b> I	Women	<u>en</u>		
	M	SD	$\boxtimes$	SD	$\mathbb{Z}$	SD	t	d
Life Goals								
Education	6.33	88.	6.15	1.02	6.49	.71	-4.05	.01**
Family	6.61	.73	6.54	62.	99.9	99.	-1.76	80.
Confidence	6.47	.75	6.45	.78	6.49	.72	45	.65
Travel	5.56	1.32	5.29	1.43	5.79	1.17	-4.00	.01**
Health	89.9	09:	6.59	69:	6.75	.50	-2.77	.01**
Celebrity Interest Index	3.36	.95	3.07	.95	3.60	68.	-5.95	.01**
Celebrity Interest	3.95	1.70	3.28	1.61	4.53	1.55	-8.22	.01**
News Interest	4.24	1.26	4.13	1.30	4.33	1.21	-1.63	.10

Note: N = 430; n (Men) = 198; n (Women) = 232. df = 428 for all t-tests. \* p < .05. \*\* p < .01.

Table 2

Correlations among Life Goal Measures, Separately By Gender (Study 1)

Life Goals	-	2	$\kappa$	4	v	9	7	∞	6	10	11	12	13	4	15
1. Happiness	ŀ	.25**	.07	.07	.07	6.	.21**	.22**	.20**	.23**	.12	.19**	.25**	.15*	.18**
2. Peace	.28**	l	.15*	.35**	.04	60.	.30**	.27**	.21**	**0+.	.33**	.34**	.33**	.35**	.42**
3. Wealth	.20**	.07	ŀ	.24**	.51**	* *	.15*	.18**	.35**	.19**	.34**	.04	.25**	.19**	.13*
4. Self-Awareness	.16*	.22**	.07	ŀ	.26**	.24 *	.28**	.24**	.17**	.41*	.18**	.16	.32**	.31**	.21**
5. Fame	.01	03	.36**	.13	ł	**87.	.21**	.19**	.20**	.15*	.20**	00.	.21**	.21**	.10
6. Celebrity	.02	80.	.42**	.16*	**62.	ł	.25**	.19**	.14*	.12	14	00	.19**	.23**	90.
7. Desire For Meaning	.05	.30**	.04	.41**	14	80.	ł	.16*	.21**	.41 **	.29**	.11	.37**	.29**	.21**
8. Having Friends	.26**	.29**	90.	.19**	90.	.13	.21**	ŀ	.15*	.26**	.18**	.18**	.26**	.24**	.24**
9. Career	.24**	.22**	.49**	.01	.22**	.25**	.04	.18*	ŀ	.32**	.53**	.16*	.32**	.21**	.23**
10. Personal Devel.	.20**	.40**	.10	.52**	14	.20**	.38**	.20**	.14*	ŀ	* *	.28**	.50**	.32**	.40**
11. Education	.11	.28**	.16*	.22**	.11	.18*	.20**	.19**	.19**	.30**	ŀ	.26**	.33**	.22**	.40**
12. Family	.26**	.25**	.11	.15*	04	01	.13	.24**	.20**	.14*	.22**	ł	.32**	.13*	.32**
13. Confidence	.29**	.25**	.21**	.23**	.15*	.13	.25**	.21**	.19**	.34**	.40**	.31**	I	.30**	.33**
14. Travel	.03	.19**	.10	.29**	.22**	.31**	.14*	.1 *	.13	.21**	.27**	.12	.23**	ŀ	.21**
15. Health	34	.42** .16	.16*	.25*	04	.02	.27 **	.38**	.16*	.36**	.27**	.35**	.33**	.13	1

*Note*: Correlations for women appear above the diagonal (n = 232). Correlations for men appear below the diagonal (n = 198). \* p < .05. \*\* p < .01.

Table 3

Correlations Between Celebrity Website and News Website Attitudes, Separately By Gender (Study 1)

1 2

.16\*

Celebrity Website
 News Website

Note: Correlations for women appear above the diagonal (n = 232). Correlations for men appear below the diagonal (n = 198). \* p < .05. \*\* p < .05.

Means and Standard Deviations for Study 2 Variables for the Whole Sample and Separately by Gender

Table 4

	Whole Sample	<u>pple</u>	Men		Women			
	M	SD	M	SD	$\boxtimes$	SD	t	d
Worldview Defense Index	4.03	1.22	3.83	1.35	4.17	1.11	-1.58	.12
Anti-Rutgers Opinion	4.22	1.39	4.00	1.57	4.39	1.23	-1.61	11.
Anti-Rutgers Actions	3.83	1.35	3.67	1.42	3.95	1.30	-1.19	.24
Celebrity Emotion Index	4.61	.71	4.66	69:	4.57	.73	.70	.49
Нарру	4.43	1.35	4.75	1.24	4.19	1.38	2.42	.02*
Proud	3.92	1.58	4.18	1.56	3.73	1.58	1.63	11.
Enthusiastic	4.25	1.50	4.46	1.39	4.10	1.56	1.35	.18
Sad	2.59	1.47	2.70	1.53	2.51	1.42	92.	45.
Disappointed	3.00	1.54	3.19	1.66	2.86	1.43	1.25	.21
Anxious	3.37	1.70	3.54	1.58	3.23	1.78	1.04	.30
Manipulation Checks								
Celebrity Admiration	4.65	1.50	4.47	1.40	4.78	1.57	-1.17	.25
Celebrity Result Accuracy	4.00	1.88	4.00	1.86	4.00	1.91	00.	1.00
Celebrity Result Believability	3.48	1.68	3.39	1.80	3.55	1.59	54	.59
Note: $N = 134$ ; $n \text{ (Men)} = 57$ ; $n \text{ (Women)} = 77$ . $df = 132 \text{ for all } t\text{-tests.}$	for all t-tes	sts.				*	* <i>p</i> < .05. **	** $p < .01$ .

Table 5

Correlations Among Worldview Defense Measures, Separately By Gender (Study 2)

m	***	.53**	;
7	**28.	I	.63**
-	ŀ	.91**	**68.
	1. Worldview Defense Index	2. Anti-Rutgers Opinion	3. Anti-Rutgers Actions

Note: Correlations for women appear above the diagonal (n = 77). Correlations for men appear below the diagonal (n = 57). \* \* p < .05. \* \* \* p < .05.

Correlations Among Celebrity Proximity Emotion Measures, Separately By Gender (Study 2)

Table 6

	-	2	8	4	5	9	7
1. Celebrity Emotion Index	I	**09`	**85.	.38**	**65	**65	20
2. Happy	**05.	ŀ	**69:	.71**	.02	.13	.41**
3. Proud	**05.	.64**	ŀ	.58**	.11	.03	.40*
4. Enthusiastic	.42**	.61**	**19:	1	.24*	.31**	**85:
5. Sad	57**	.16	.20	.27*	1	.73**	.37**
6. Disappointed	**89'-	.07	.03	.14	.71**	ŀ	.46**
7. Anxious	60:-	* * * * * * * * * * * * * * * * * * * *	.54**	.52**	.33*	.24	ŀ

Note: Correlations for women appear above the diagonal (n = 77). Correlations for men appear below the diagonal (n = 57). \* p < .05. \*\* p < .05.

Table 7

Correlations Among Celebrity Proximity Manipulation Checks, Separately By Gender (Study 2)

	1	2	3
Celebrity Admiration	I	.11	.17
Celebrity Result Accuracy	03	ı	**\$8:
Celebrity Result Believability	00	**0L.	:

 $\ddot{c}$ 

Note: Correlations for women appear above the diagonal (n = 77). Correlations for men appear below the diagonal (n = 57). \*\* p < .05. \*\* p < .05.

Table 8

Means and Standard Deviations for Study 3 Variables for the Whole Sample and Separately by Gender	or the Whol	e Sample a	nd Separate	ely by Gend	ler			
	Whole Sample	<u>mple</u>	<u>Men</u>		Women			
	$\mathbb{M}$	SD	$\mathbb{Z}$	SD	M	SD	<i>t</i>	d
Worldview Defense Index	4.00	1.31	4.08	1.28	3.88	1.37	88.	.38
Anti-Rutgers Opinion	3.88	1.47	4.00	1.41	3.70	1.54	1.16	.25
Anti-Rutgers Actions	4.12	1.55	4.16	1.52	4.06	1.60	.39	.70
Celebrity Emotion Index	4.62	76.	4.58	1.01	4.68	.92	09	.55
Нарру	3.94	1.66	3.94	1.77	3.94	1.50	02	86.
Proud	3.89	1.87	3.95	1.89	3.79	1.86	.47	.64
Enthusiastic	3.82	1.82	3.75	1.84	3.92	1.81	55	.58
Sad	2.35	1.45	2.39	1.47	2.28	1.42	.43	.67
Disappointed	2.70	1.59	2.73	1.61	2.64	1.58	.33	.74
Anxious	2.88	1.78	3.04	1.88	2.64	1.62	1.26	.21
Manipulation Checks								
Celebrity Result Accuracy	3.03	1.70	2.89	1.74	3.25	1.64	-1.19	.24
Celebrity Result Believability	2.68	1.62	2.51	1.60	2.94	1.63	-1.53	.13
Rutgers Student Identity	5.11	1.45	5.00	1.47	5.26	1.42	-1.02	.31
Note: N = 132; $n \text{ (Men)} = 79$ ; $n \text{ (Women)} = 53$ . $df = 13$	df = 130 for all <i>t</i> -tests.	ssts.				*	* $p < .05$ . **	** $p < .01$ .

*Note*: N = 132; n (Men) = 79; n (Women) = 53. df = 130 for all t-tests.

Table 9

Correlations Among Worldview Defense Measures, Separately By Gender (Study 3)

$\kappa$	**88.	.52**	1
7	** 28.	I	.52**
1	I	**98.	**88.
	1. Worldview Defense Index	2. Anti-Rutgers Opinion	3. Anti-Rutgers Actions

Note: Correlations for women appear above the diagonal (n = 53). Correlations for men appear below the diagonal (n = 79). \* p < .05. \* \* p < .05.

Correlations Among Celebrity Probability Emotion Measures, Separately By Gender (Study 3)

Table 10

		2	8	4	5	9	7
1. Celebrity Emotion Index	ŀ	**29.	**09.	.55**	.47**	**69'-	**0+
2. Happy	***	ŀ	.63**	.62**	80.	11	.10
3. Proud	**29.	.83**	I	.62**	.23	07	.24
4. Enthusiastic	.61**	**6L'	**//:	I	.20	02	.38**
5. Sad	52**	03	.14	.16	1	**59.	**49.
6. Disappointed	**69'-	16	11	02	**0L'	1	**09:
7. Anxious	27*	.30**	.37**	.43*	**85.	**75.	I

Note: Correlations for women appear above the diagonal (n = 53). Correlations for men appear below the diagonal (n = 79). \* p < .05. \* \* p < .05.

Table 11

Correlations Among Celebrity Probability Manipulation Checks, Separately By Gender (Study 3)

1. Celebrity Result Accuracy

.62\*\*

2. Celebrity Result Believability

ł .85\*\* *Note:* Correlations for women appear above the diagonal (n = 53). Correlations for men appear below the diagonal (n = 79). \* p < .05. \*\* p < .05.

#### Appendix A

### Mortality Salience Manipulation

(Greenberg, Pyszczynski, & Solomon, 1986)

#### The Projective Life Attitudes Assessment

This assessment is a recently developed innovative personality survey. Recent research suggests that feelings and attitudes about significant aspects of life tell us a considerable amount about the individual's personality. Your responses to this survey will be content analyzed in order to assess certain dimensions of your personality. Your honest responses to the following questions will be appreciated.

1. Please describe the emotions that the thought of your own death arouses in you:
2. Write down, as specifically as you can, what you think will happen to you physically
as death occurs and when it is over:
as death occurs and when it is over:

Control Condition:
1. Please describe the emotions that the thought of dental pain arouses in you:
2. Write down, as specifically as you can, what you think will happen to you physically
as dental pain occurs and when it is over:

#### Appendix B

#### Reading Comprehension Distraction Task

Instructions: Please read the following short passage from a novel and answer the questions below it.

The automobile swung clumsily around the curve in the red sandstone trail, now a mass of mud. The headlights suddenly picked out in the night - first on one side of the road, then on the other - two wooden huts with sheet metal roofs. On the right near the second one, a tower of course beams could be made out in the light fog. From the top of the tower a metal cable, invisible at its starting-point, shone as it sloped down into the light from the car before disappearing behind the embankment that blocked the road. The car slowed down and stopped a few yards from the huts.

The man who emerged from the seat to the right of the driver labored to extricate himself from the car. As he stood up, his huge, broad frame lurched a little. In the shadow beside the car, solidly planted on the ground and weighed down by fatigue, he seemed to be listening to the idling motor. Then he walked in the direction of the embankment and entered the cone of light from the headlights. He stopped at the top of the slope, his broad back outlined against the darkness. After a moment he turned around. In the light from the dashboard he could see the chauffeur's black face, smiling. The man signaled and the chauffeur turned off the motor. At once a vast cool silence fell over the trail and the forest. Then the sound of the water could be heard.

The man looked at the river below him, visible solely as a broad dark motion flecked with occasional shimmers. A denser motionless darkness, far beyond, must be the other bank. By looking fixedly, however, one could see on that still bank a yellowish light like an oil lamp in the distance. The big man turned back toward the car and nodded. The chauffeur switched off the lights, turned them on again, and then blinked them regularly. On the embankment the man appeared and disappeared, taller and more massive each time he came back to life. Suddenly, on the other bank of the river, a lantern held up by an invisible arm back and forth several times. At a final signal from the lookout, the man disappeared into the night. With the lights out, the river was shining intermittently. On each side of the road, the dark masses of forest foliage stood out against the sky and seemed very near. The fine rain that had soaked the trail an hour earlier was still hovering in the warm air, intensifying the silence and immobility of this broad clearing in the virgin forest. In the black sky misty stars flickered.

How do you feel about the overall descriptive qualities of the story?

1 2 3 4 5 6 7 8 9

Not at all Somewhat Very

descriptive descriptive descriptive

Do you think the author of this story is male or female? Why?

## Appendix C

#### Math Distraction Task

Instructions: In this next section, we are interested in your mathematical abilities. Please try to answer each of the following math problems to the best of your ability \*without\* using paper & pencil. Take your time and try to answer each problem correctly. Do not proceed to the next question until you have answered the current problem.

- 1. 384 + 234 =
- 2. 845 143 =
- 3. 312 + 435 =
- 4. 647 124 =
- 5.884 + 896 =
- 6.967 739 =
- 7. 124 + 343 =
- 8.654 821 =
- 9. 234 + 965 =
- 10. 213 121 =
- 11. 754 + 213 =
- 12. 354 557 =
- 13. 972 + 184 =
- 14. 449 823 =
- 15. 636 + 997 =

## Appendix D

#### Life Goals Measure

Instructions: In this next section, you will be presented a series of possible life goals.

Please rate the extent to which each of the life outcomes is desirable to you.

Not-At-All					I	Extremely
1	2	3	4	5	6	7

- 1. Happiness
- 2. Peace
- 3. Wealth
- 4. Self-awareness
- 5. Fame
- 6. Celebrity
- 7. Desire for Meaning
- 8. Having Friends
- 9. Career
- 10. Personal development
- 11. Education
- 12. Family
- 13. Confidence
- 14. Travel
- 15. Health

#### Appendix E

### Celebrity Interest Measure

Instructions: As part of this market research study, in the following section you will be asked to read descriptions of two news websites that are quickly gaining popularity on the Internet. You will be asked to evaluate brief descriptions of each website and provide your opinions.

Celebrity Website:

CelebWatch (www.celebwatch.com)

CelebWatch is your source for up-to-the-minute daily celebrity news, gossip and information on the internet. Every single day, the culture experts at CelebWatch provide an informative and humorous look at the world of celebrities.

News Website:

InterNews Network (www.internews.com)

The InterNews Network provides an entertaining take on current news events and headlines. InterNews Network goes beyond simply reporting the headlines by providing a fresh and irreverant viewpoint on the world's events.

How interesting does this website sound?

Not-At-All Extremely 1 2 3 4 5 6 7

How appealing does this website appear?

Not-At-All Extremely 1 2 3 4 5 6 7

Which of the two websites would you MOST like to visit?

CelebWatch InterNews Network

#### Appendix F

#### Rutgers Worldview Defense Measure

(Adapted from Hodgins, Brown, & Carver, in press)

Instructions: We are interested in getting your feedback on a soon-to-be published newspaper article. Please read the following Targum newspaper article and indicate your opinions:

Rutgers undergraduate students have been blamed for a recent increase in the rate of property vandalism in New Brunswick. A survey conducted by graduate students in the Rutgers School of Business was recently published in the Daily Targum. The survey polled 128 New Brunswick business owners, who were asked to answer a number of questions regarding their opinions toward Rutgers undergraduate students.

The survey revealed that 76% of downtown New Brunswick business owners 'agreed somewhat' or 'agreed strongly' with the statement, "Rutgers students can be quite difficult to deal with." Furthermore, 80% of the business owners 'agreed somewhat' or 'agreed strongly' with the statement, "Rutgers students are a major cause of damage to downtown New Brunswick's night-time establishments."

As a result of this study, university officials are considering an increase in the presence of Rutgers police & public safety officers in the downtown New Brunswick area. Furthermore, the administration is currently reviewing policies regarding "acceptable behavior" on the part of Rutgers undergraduate students.

How much do you agree with the opinions of New Brunswick business owners regarding Rutgers undergraduates?

How much do you agree with the proposed actions of Rutgers University toward undergraduate students?

## Appendix G

### Celebrity Association Feelings Measure

Instructions: In the next section, you will see a series of feelings regarding the results of the celebrity association program. Please rate the extent to which you have experienced each of the feelings about the results of your degree of celebrity association.

Not-At-All Extremely 1 2 3 4 5 6 7

- 1. Happy
- 2. Proud
- 3. Enthusiastic
- 4. Sad
- 5. Disappointed
- 6. Anxious

## Appendix H

### Celebrity Association Manipulation Checks

How much do you admire the celebrity that you chose?

How accurate do you feel are the celebrity association results?

How believable do you feel are the celebrity association results?

#### Appendix I

### Celebrity Association Manipulation

Instructions: The Kevin Bacon Game ("Six Degrees of Bacon") has recently become a popular phenomenon of interest within pop culture. Few people know, however, that this game is based on existing theories within the psychological literature.

Using data collected over the last 20 years by the Interpersonal Connectivity Lab (ICL) at the University of Virginia, we can now find your personal degree of association with a person you select. You will be asked to provide some personal information about yourself, which will allow the program to link you with other individuals. In doing so, an interconnected personal matrix will be created; this information will be compared with the data in the ICL Database.

The information you provide will be held as confidential, and will be deleted after the program calculates your degree of association.

Please select the number of the celebrity you would like to be linked with:

- 1. Brad Pitt
- 2. Tom Hanks
- 3. Johnny Depp
- 4. Denzel Washington
- 5. Will Smith
- 6. Angelina Jolie
- 7. Oprah Winfrey
- 8. Beyonce Knowles
- 9. Jessica Alba
- 10. Reese Witherspoon

Thank you for choosing your celebrity. In order to calculate your personal degree of separation from this celebrity, we first need some information from you. This information you provide will be held confidentially, and is used to calculate your degree of association with the celebrity you have chosen.

Previous research conducted by the Interpersonal Connectivity Lab (ICL) has shown that by answering several simple questions, an accurate measure of interpersonal association can be calculated. In order for the results to be accurate, it is important that you answer ALL of the following questions as truthfully and accurately as possible. Your spelling matters, so please double check your answers before you proceed to the next question.

#### Appendix J

#### Celebrity Association Manipulation Questions

- 1. Please type in your city, state and country of birth: (example: New Brunswick, NJ, USA)
- 2. Please enter the name of your High School, the state it is located in, and the year you graduated: (example: Piscataway High School, NJ, 2005)
- 3. Please enter the full names of your three closest friends, each followed by the state they are originally from: (example: Sally Jones, NJ, Leo Spaceman, NY, John Doe, CT)
- 4. Please enter your full name, including your middle name if you have one: (example: John James Doe)
- 5. Please enter your mother's maiden name:
- 6. Please list the full names of any celebrities you have personally met: (if you have not met any celebrities, please enter 'none')
- 7. Please list the full names of any celebrities that your close friends and/or immediate family members have met: (if they have not met any celebrities, please enter 'none')
- 8. Please list the states you have visited for \*at least\* a period of 48 hours, in the following format: (NY, NJ, CA)
- 9. Have you spent time in Los Angeles, California? If yes, how many times have you been there?
- 10. Have you spent time in New York City, NY? If yes, how many times have you been there?

### Appendix K

#### Celebrity Association Feedback

High Celebrity Association Condition:

Your degree of association with the celebrity you have chosen is:

2 degrees.

What does this number mean?: A degree of association of **2** indicates that based on your social network, you have an **extremely high** probability of meeting this celebrity in your lifetime. If you were to meet this celebrity, you would probably be able to have a meaningful conversation, based on your shared associates.

Low Celebrity Association Condition:

Your degree of association with the celebrity you have chosen is:

20 degrees.

What does this number mean?: A degree of association of **20** means that you have an **extremely low** probability of meeting this celebrity in your lifetime. For all intents and purposes, you have practically no association with this celebrity.

## Appendix L

### Celebrity Probability Feelings Measure

Instructions: In the next section, you will see a series of feelings regarding the results of the celebrity association program. Please rate the extent to which you have experienced each of the feelings about the results of your degree of celebrity association.

Not-At-All Extremely 1 2 3 4 5 6 7

- 1. Happy
- 2. Proud
- 3. Enthusiastic
- 4. Sad
- 5. Disappointed
- 6. Anxious

# Appendix M

## Celebrity Probability Manipulation Checks

How accurate do you feel are the celebrity probability results?

How believable do you feel are the celebrity probability results?

#### Appendix N

#### Celebrity Probability Manipulation

Instructions: Scientists have recently embarked on research designed to understand the phenomenon of fame and celebrity. Research has identified several factors that are strongly related to an individual's probability to experience a significant amount of fame and celebrity within their lifetime.

Using data collected over the last 20 years by the Interpersonal Connectivity Lab (ICL) at the University of Virginia, we can now accurately estimate your personal probability of becoming famous. You will be asked a series of true-false questions, which will allow the program to compare you to the ICL database of celebrity information.

The responses you provide will be held as confidential, and will be deleted after the program calculates your personal probability of becoming famous.

#### Appendix O

#### Celebrity Probability Manipulation Questions

- 1. "I am the oldest child in my family."
- 2. "I am an only child."
- 3. "Of all of the senses, I believe that the sense of sight is the most important."
- 4. "I feel closer to my mother than my father."
- 5. "I have at least 5 friends I would consider 'close friends'."
- 6. "I put a lot of thought into my choice of clothing."
- 7. "I tend to remember my dreams in vivid detail."
- 8. "I remember my nightmares more often than my dreams."
- 9. "I have cheated on a significant other."
- 10. "If I had to choose between having a lot of money or a lot of good friends, I would select money."
- 11. "I am left handed."
- 12. "When I enter a room for the first time, I tend to look from right to left."
- 13. "I would rather own a black car than a red car."
- 14. "I can remember the name of my first grade teacher."
- 15. "I enjoy reading books and magazines in my spare time."
- 16. "I believe it is important to arrive on time for my appointments."
- 17. "I know all of the words to my favorite song."
- 18. "The concepts of 'good' and 'evil' do not actually exist."

- 19. "When I meet someone for the first time, the first thing I notice about them is their eyes."
- 20. "I know how to say 'hello' in a language other than English."

#### Appendix P

### Celebrity Probability Feedback

Low Celebrity Probability Condition:

Your personal probability of achieving fame and celebrity is:

**2.7%**.

What does this number mean?: A celebrity probability estimate of **2.7%** means that you have an **extremely low** probability of experiencing fame and celebrity in your lifetime. This estimate is significantly **lower** than the average individual, and indicates that it is extremely **unlikely** that you will become famous.

High Celebrity Probability Condition:

Your personal probability of achieving fame and celebrity is:

**85.7%**.

What does this number mean?: A celebrity probability estimate of **85.7%** means that you have an **extremely high** probability of experiencing fame and celebrity in your lifetime. This estimate is significantly **higher** than the average individual, and indicates that you are extremely **likely** to become famous.

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