

THE ANDREA YATES EFFECT:
PRIMING OF MENTAL ILLNESS STEREOTYPES THROUGH EXEMPLIFICATION
OF POSTPARTUM DISORDERS

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A dissertation submitted to the faculty of the University of North Carolina at
Chapel Hill in partial fulfillment of the requirements for the degree of Philosophy
in the School of Journalism and Mass Communication.

Chapel Hill
2010

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ABSTRACT

LYNETTE MARIE HOLMAN:
The Andrea Yates Effect:
Priming of Mental Illness Stereotypes Through Exemplification
of Postpartum Disorders
(Under the direction of Rhonda Gibson)

Postpartum depression is a common disorder that can occur after a woman has given birth. Unfortunately, many who suffer from postpartum depression do not seek treatment — one reason may be because of the stigma perpetuated by media accounts of women with postpartum psychosis who commit infanticide (Holman, 2009; Chewing, 2008). Although such incidents are incredibly rare — only 1 in 1,000 new mothers develops postpartum psychosis, and of these, only 4% commit infanticide (Parry, 1995) — women make the news when they kill their infants.

This study sought to determine whether an exemplar of extreme maternal mental illness (i.e., Andrea Yates, the Texas woman who drowned her five children in 2001) is more likely to trigger, or prime, harsher judgments of a target character who suffered from postpartum depression than would a non-extreme exemplar. This study used a priming technique whereby participants — 40 pregnant women, 20 for each condition — were exposed to online slideshow stories, one about Andrea Yates and one about a woman who suffered from the milder postpartum depression. Later, their memory was triggered via a subliminal priming technique consisting of flashes of images from either slideshow. The participants then watched a video clip of the target character and were asked to evaluate her. This study sought not only to isolate a media effect, but also to determine how this effect

may be influencing behavioral intentions such as postponing speaking with their doctors about depression in order to avoid medication.

The findings of this study suggest that the non-extreme prime triggered harsher judgments of the target character once that character's sanity was called into question, whereas the extreme prime prompted participants to correct their judgments of the target character and to evaluate her more positively when her sanity was in question. The non-extreme prime triggered higher perceptions of the risk of developing postpartum disorders than the extreme prime. However, in spite of harsher judgments and higher perceptions of risk, those in the non-extreme condition were more likely than those in extreme condition to engage their health care providers if they thought they were depressed.

ACKNOWLEDGMENTS

First and foremost, I would like to thank my husband, Philip Holman, and my two children, Claudia and Liam, for their unyielding love and support through these three long years. You were my saving grace. I would also like to thank my mother, Linda Seabrook Huck, who not only supported me emotionally; she literally provided her expertise as a Registered Nurse. My gratitude also extends to my in-laws, Wilhelmina and Tony Holman, who helped us hold down the home fort while I pursued my doctoral studies. Others who are literally a part of my dissertation, either by providing voiceovers for the stimulus website or by appearing in the Web video, include my brother, Dr. Mark Chewning, Heather Cigeroglu, Dr. Barbara Friedman, Daniel Siler, Chris Higginbotham, and Samantha Ewing. I am especially appreciative of Samantha Ewing's bravery in sharing her personal experience with postpartum depression. I would also like to acknowledge all of my friends and family members who have cheered me on through this process.

I am grateful for the guidance and support I have received from my dissertation chair, Dr. Rhonda Gibson. She stood by me through every hurdle and pushed me to do better. I would also like to thank my committee. The research I have done with Dr. Francesca Dillman Carpentier provided me with the groundwork for this dissertation. In addition to helping me with my stimulus materials for this study, Laura Ruel has been a great support for me in my personal and professional life. Dr. Tanya Chartrand has been so helpful in focusing my method, and has helped me see a research stream, or story, beyond this one. Dr. Mary

Frances Luce has opened my eyes to medical consumer behavior, which gave me the courage to pursue a study of this population.

Finally, I would like to thank the clinicians who supported me in this effort. I am grateful to the physicians, nurses and staff of the OB/GYN Health Center, Volusia OB/GYN, and the Daytona Beach Women's Center who allowed me to conduct my research with their patients and in their space. I am most grateful to Dr. John Meyers, without whom this study would have never moved forward. Not only did he allow me to recruit his patients, he actively helped me get my proposal through the UNC-Chapel Hill Institutional Review Board. In addition, I am grateful to Dr. Vagovic and Dr. Tapia-Santiago for opening up their offices for my study. I would also like to thank Dr. James Moore for lending his expertise as a mental health practitioner.

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CHAPTER I

INTRODUCTION

Journalists have long prided themselves on reporting the truth, not mired by personal prejudice and biases. At least, that is the ideal *modus operandi* for those who have been called into the news-gathering profession. However, social cognitive psychologists have shown in their research that prejudice can be invoked both explicitly and implicitly (Devine, 1989; Bargh, 2006, 2008). This means that while individuals may be able to recognize and correct their explicit feelings of prejudice, stereotypical attitudes that are implicitly activated are beyond their awareness and control. For example, when an “elderly” concept was activated implicitly, participants responded by walking more slowly (Bargh, Chen, and Burrows, 1996). When an “African American” stereotype was implicitly activated, participants responded with more hostile behavior. These researchers showed that social behavior could be invoked non-consciously, as none of these participants were aware they were behaving differently and certainly didn’t know why such an effect occurred.

So why should journalists and those who seek out the information that journalists provide be immune to such a phenomenon? This study will investigate whether media consumers are immune to the influence of implicitly activated stereotypes, and if not, whether consumers of medical information who are likely sensitive to information related to their condition — such as pregnant women who may struggle with mental illness¹ — are particularly vulnerable to this influence. Women suffering from postpartum depression face a difficult obstacle of overcoming the stigma attached to mental illness, particularly if that

stigma has been perpetuated by media accounts of unhinged, mentally ill mothers who kill their children. In a content analysis of 202 newspaper and magazine articles about varying levels of postpartum disorders (“baby blues,” postpartum depression, and postpartum psychosis) from a sample spanning the years 1998 to 2008, Holman (2009) showed that mainstream print media continue to cultivate the stigma of mental illness. The fact that 31 out of 82 newspaper articles about cases involving postpartum psychosis incorrectly characterized the mental illness portrayed as a milder disorder called postpartum depression indicates that media outlets need to be more diligent in how they handle medical reporting.

Media scholars note that the stigma attached to mental illness is pernicious and is a significant obstacle to improving mental health care (Satorius & Schulze, 2005; Link et al., 1992). The news media often depict only the most extreme representations of a given condition; this is simply the nature of news judgment and what is deemed “newsworthy.” It is often from such extreme portrayals that individuals draw their information about topics with which they may not have direct experience (Zillmann, 1999). In addition, the media, like many facets of society, perpetuate the stigma of mental illness, and there has been wide-ranging research of mental illness stereotypes from a mass media perspective that support this assertion (Byrd, 1979b; Byrd & Pipes, 1981; Byrd & Elliott, 1985; Gerbner, 1959, 1961; Gerbner & Tannenbaum, 1960; Lang et al., 2006; Taylor, 1957; Wahl & Harman, 1989; Wahl & Kaye, 1992; Wahl, 1992, 1995; and Winick, 1978). For example, an extensive content analysis of 2,205 television programs by Lang et al. (2006) illustrates the pervasive nature of the stigma of mental illness. Slang terms for mental illness were heard in 43.8% of the study’s sample, and derogatory and slang terms were especially prevalent in children’s programming. MTV, for example, featured slang terms for mental illness in 65.5% of its

programs (Lang et al., 2006). Media scholars and observers have illustrated how mass media have long engendered social (Gerbner et al., 2002) and gender stereotypes (Faludi, 1991), and indeed how they are likely doing the same for stereotypes of mental illness, including postpartum depression (Barnett, 2005, 2006; Holman, 2009).

Postpartum depression is a common and highly treatable disorder that can occur after a woman has given birth. Medical experts agree that as many as eight out of ten new mothers experience the “baby blues” after delivery (Luskin et al., 2008). The “baby blues” is a disorder that develops some two to three days after delivery and typically resolves within two weeks (Luskin et al., 2008). One in ten new mothers develops more severe postpartum depression (PPD); PPD’s symptoms are often overlooked because they are considered part of the usual difficulties new mothers face after giving birth — fatigue, difficulty sleeping, anxiety, excessive concerns about the baby or — alternatively — feeling detached from the baby, and feelings of inadequacy and being overwhelmed, for example (Luskin et al., 2008; Bernstein et al., 2008). Only about one in 1,000 new mothers develops postpartum psychosis, which pairs the symptoms of PPD with a woman’s losing touch with reality and experiencing such things as hearing voices or committing violent acts (Spinelli, 2009, Luskin et al., 2008; Viguera, Emmerich, & Cohen, 2008). Only 4% of women with postpartum psychosis commit infanticide (Parry, 1995); however, women make the news when they kill their infants, and their stories are often framed as violations of maternal myths (Barnett, 2006). So although postpartum depression is relatively common, it often goes untreated because women do not feel empowered to speak up if they think they are depressed — perhaps because of societal expectations of the new mother, or perhaps because of the stigma perpetuated by media accounts of women who commit infanticide (Chewning, 2008). In addition, many new

mothers do not even realize they are depressed. They do not know that is “normal” for new mothers and may avoid seeking help simply because they aren’t aware of what constitutes depressive symptoms (Meltzer-Brody, 2010). This avoidance behavior was illustrated in a clinical study in which only one third of women who had postpartum depression believed they suffered from the disorder and 80 percent had not reported to their doctors that they were experiencing symptoms (Whitton, Warner, & Appleby, 1996).

The story of Andrea Yates exemplifies how a strong media antecedent can enable the stigma of mental illness. Yates was a former nurse and stay-at-home mother living in suburban Texas with her husband and five young children. On June 20, 2001, she filled a bathtub with water and drowned each of her children, one by one. What followed was a whirlwind of media coverage that thrust this woman — and the issue of postpartum disorders — into the country’s collective conscience (Barnett, 2005, 2006). Andrea Yates was tried and convicted for the murders of three of her children, a common legal practice in cases of multiple murders. The conviction allowed prosecutors to have her stand trial for the deaths of the other two children at a later date. Yates was sentenced to life in prison in 2002; in 2005, however, her murder conviction was overturned on appeal. Yates was retried, and in 2006 she was found not guilty by reason of insanity. Yates is confined to Vernon State Mental Hospital in North Texas and will be held there for an indeterminate amount of time, subject to reviews by the court (Parker & Kasindorf, 2006; Holman, 2009).

Communication theories such as cultivation theory (Gerbner et al., 2002) and theories of the social construction of reality (Potter, 1991) help to elucidate the ways in which mass media shape individuals’ impressions of the world. Past work in these streams of research indicates that those who are mentally ill have often been portrayed negatively and have been

stigmatized (Gerbner, 1998; Wahl, 1992). While many of these researchers have shed light on the “big picture” effects of a media culture, scholars in the areas of media priming and exemplification research have investigated the underlying psychological mechanisms that drive the individual perceptions resulting from various phenomena. It is this work that informs the theoretical framework of this study.

Roskos-Ewoldsen, Klinger, and Roskos-Ewoldsen’s (2007) meta-analysis of 63 media priming studies concludes that the media can act as a prime, or stimulus, that can activate concepts stored in memory upon which individuals base their assessment of a target. Classic semantic priming manipulations were first used in cognitive psychology to investigate the “structure and representation of information within network models of memory” (Anderson, 1983, as cited in Roskos-Ewoldsen et al, 2007, p. 55). Derived from schema theory (Bartlett, 1932), which explains how individuals’ look at, categorize, and respond to the world based on past experience (Anderson, 1977), network models of memory predict that a stimulus can activate a concept that is stored in the memory as a node (Roskos-Ewoldsen et al., 2007, Roskos-Ewoldsen, Klinger, and Roskos-Ewoldson, 2009). Once one node is activated, it can spread to other related nodes and reach an “activation threshold” (Roskos-Ewoldsen et al., 2009, p. 79). Once this threshold is reached and the stereotype is primed, it is predicted that this will lead to respondents’ attitude activation toward members of that stereotyped group (Roskos-Ewoldsen et al., 2007). A prime usually results in an automatic, unconscious judgment effect that is often short-lived. This brief effect is evidenced by prior studies that have manipulated the delay between priming and of the stimulus presentation (Srull & Wyer, 1980). Most research on the influence of priming on subsequent judgments involves a maximum delay of 15 to 20 minutes (Roskos-Ewoldsen et

al. 2007, Roskos-Ewoldsen et al., 2009). Media priming researchers have used music videos to prime gender stereotypes (Hansen & Hansen, 1988; and Hansen & Krygowski, 1994), stereotypical newsletter information to prime judgments of African Americans and women (Power, Murphy, & Coover, 1996), and even media to prime rape myths (Beaver, Gold, & Prisco, 1992; and Wyer, Bodenhausen, & Gorman, 1985).

While media priming researchers have shown that the media can function as a prime, exemplification theorists study the circumstances under which the shaping or amendment of beliefs about a given phenomenon, such as postpartum depression, are based on samplings of occurrences — in the case of this study, the media coverage of postpartum disorders (Holman & Carpentier, 2009, Holman, 2009, Zillmann & Brosius, 2000; Zillmann, 1999, 2006). These samples of a known (or unknown) phenomena come in the form of exemplars, or examples, used to illustrate a news story. Ideally, these examples should truly represent the issue at hand. In statistical terms, this means that the distribution of examples in a story should be representative of the statistical distribution of phenomena as it exists in our society. However, this is not the way that journalism is practiced. Journalists tend to seek out exemplars — which can manifest structurally in pull-quotes, photographs, double-edits, as well as in specific events — that are extreme in nature (Brosius, 2003; Daschmann & Brosius, 1997). Media scholars have pointed out that it was valuable for research on priming to shift from attempting to prove that media priming exists to testing specific theories (Roskos-Ewoldsen, Roskos-Ewoldsen, & Carpentier, 2002). The goal of this study was to test the notion that a prime in the form of an extreme exemplar of postpartum disorders would yield a stronger effect than a non-extreme exemplar.

Exemplars are powerful in that they tend to conjure strong emotional reactions and offer concrete examples of phenomena. Two variables control access to exemplars: the recency and frequency of exposure. Accessibility from frequent exposure is called chronic accessibility and its effects are usually more dominant than those of recency of activation (which occurs in priming) (Zillmann, 2006, p. 223). Simply defined, chronic accessibility refers to what Shrum's (2002) accessibility model describes as the assumption that people rely on "cognitive shortcuts" such as ease of access to information in order to form their judgments (Shrum, 2007, p. 249). And a construct that is chronically accessible is even easier to access once it has been triggered by a prime because one has encountered that particular construct "more often and thus [has] more relevant memories available for retrieval and evaluation" (Shrum, 2007, p. 251).

Exemplification researchers have found that because exemplars promote the chronic accessibility effect, exemplars exhibit a disproportionate influence on risk and safety assessments, and that effect is not short-lived, as in priming (Zillmann, 2006). Indeed, researchers have found "sleeper" — or long-term — effects of exemplars, some lasting as long as two weeks (Zillmann & Gan, 1996; Zillmann & Brosius, 2000). In order to demonstrate that this "exemplification effect" is not short-lived, Zillmann and Gan's (1996) study about the perceived risk of contracting Melanoma from sun exposure included delay conditions whereby the time between exposure to the stimulus and the measurement of risk perception was extended by two weeks. In the extreme condition, where participants were exposed to the most graphic images of skin cancer, the perception of risk grew over time. "The observed absolute sleeper effect is consistent with the proposal that threatening images in particular continue to impose themselves in memory, whereas the accessibility of

alternative information, especially of comparatively abstract forms, diminishes over time” (Zillmann & Brosius, 2000, p. 100).

Aust and Zillmann’s (1996) studies about the perceived threat of random shootings in fast-food restaurants and the dangers of Salmonella poisoning, have shown that news exemplars featuring victims of these unfortunate happenings increased respondents’ perceptions of their own risk of being victimized. Gibson and Zillmann’s (1994) investigation on carjacking also confirmed that as the manipulated level of risk and victimization increased in the exemplars presented, respondents’ assessments of their own risks increased. This model of risk perception can be assimilated and transferred to other groups as well. Gibson and Zillmann’s (2000) study that manipulated how a news report on an Appalachian tick disease was illustrated produced an effect on how the risk for particular ethnic groups was perceived by respondents. Pictorial presentations of either all white victims or all black victims, particularly when coupled with pictures of ticks, increased the overestimation of that group’s risk of contracting the disease. Therefore, the assessment of the participants’ own risk or their judgment in the evaluation of another’s risk level is based on an affective heuristic and not necessarily a rational one (Slovic et al. 2004, p. 4).

Like network models of memory, exemplification theory also utilizes schema theory (Zillmann and Brosius, 2000). Schema theory is a learning theory that regards knowledge as an intricate network of mental structures representing one’s view of the world (Anderson, 1977). Roskos-Ewoldsen et al. (2009) have defined schema as very abstract mental representations of constructs. The researchers have stated: “although there may be temporal or spatial information about events within a schema, the schema itself is not contextualized within a specific time or place in the same way that a situation or mental model is situated”

(Roskos-Ewoldsen et al., 2009, p. 85). In contrast to the highly abstract schema, Roskos-Ewoldsen et al. (2009) have placed mental models at the mid-point along a theoretical continuum of abstractness, with situation models being the least abstract representations of experienced phenomena. With this framework in mind, it could be argued that (1) one story about postpartum disorders represents a situation model; (2) a long-running series of stories about a woman who has killed her children could create a mental model of postpartum disorders; and (3) one's view of mental illness could represent the abstract notion of a schema.

And while Zillmann and Brosius (2000) criticize schema theory as perhaps not providing enough predictive power to show when specific influences have an effect, they admit that, because of the cyclical nature of news, schemata are rather common. This is where exemplification theory may provide more predictive power than schema theory. Specifically, Zillmann and Brosius (2000) agree that there is a degree of commonality in what is presented in the media and what the audience reports as salient, or chronically accessible, to them. This notion likely describes Price and Tewksbury's (1997) assumption about the power of media to prime constructs in people's minds — namely, that media portrayals increase the *chronic accessibility* of the constructs that, in turn, “result in the media effects that are being studied” (Roskos-Ewoldsen et al., 2009, p. 84).

Exemplification theorists point out that exemplars of a particular phenomenon provide media consumers with mental shortcuts for processing complex information and are therefore easier to process than base-rate, or statistical data (Zillmann and Brosius, 2000; Brosius, 2003). Beyond their affective, or emotional, reactions to information as it is presented to them, individuals use three heuristics in their shaping of beliefs about the

allocation of exemplar properties within samplings — the *quantification heuristic* or utilization of comparative assessments, the *representative heuristic* or the devaluation of base-rate information, and the *availability heuristic* or the intake of judgments about the population that are “cognitively obtrusive” (Zillmann, 2006, pp. 222-223). This simply means that, for this study, a pregnant woman who is considering her own risk for postpartum depression may subconsciously compare her possible outcome with news portrayals of women who have suffered from the more severe postpartum psychosis and then committed infanticide or filicide. Because of past media coverage, negative attitudes toward this topic are likely to be chronically accessible (Roskos-Ewoldson et al., 2009); therefore, the same pregnant woman would not be as likely to take into account the statistical unlikelihood that she would suffer the same fate (Brosius, 2003).

This study investigated whether a media exemplar, which conjures strong emotional reactions and is easier to process and remember than base-rate data, is likely to provide a stronger prime, or activation of accessible information in an individual’s memory, in terms her risk perception (Zillmann, 2006; Holman & Dillman Carpentier, 2009) than would a simple prime of a stereotype (see Dijksterhuis et al., 1998). This effort follows in the footsteps of previous work by Holman and Dillman Carpentier (2009), who successfully primed stereotypes of mental illnesses through media exemplars presented in online news slideshows.

This study investigated the relationship between a primed stereotype and the reactions of a highly involved group of subjects — pregnant women — against a target character who suffered from postpartum depression. This was accomplished by investigating the effects of two types of subliminal or implicit primes on these pregnant women: a non-extreme image

prime and an extreme image prime utilizing images related to the Andrea Yates case. These stimuli were presented to participants under the guise of a computer diligence task in which the subjects were exposed to the stimuli for 16 milliseconds each and then asked to determine where the “flashes” had occurred on the screen (see Chartrand & Bargh, 1996 for a review of the procedure). Very brief, discrete exposures of images have previously been utilized to prime goals (Fitzsimmons, Chartrand, & Fitzsimmons, 2008). Fitzsimmons et al. (2008) exposed participants to 13 millisecond exposures of the Apple Computer or IBM logos in order to prime creativity, for example. Exposures of 13 to 16 milliseconds are far too fast an exposure time for participants to be able to consciously assess what they have seen. In addition, participants were asked to focus on the center of the computer screen while the stimuli were flashed in their parafoveal view.

While social cognitive psychologists have long employed this method in priming, none have utilized a specific media exemplar (e.g., Andrea Yates) to prime a closely related construct (maternal mental illness). It was predicted that the Yates exemplar condition would result in harsher evaluations of the target character than the non-extreme condition. The aim of the subliminal prime was to eliminate any demand effects on these women and to assure that they couldn't correct for the influence of the prime, as would be possible in the case of a supraliminal prime that did not remain outside of their awareness. In addition, the subliminal prime directly accessed concepts that are likely chronically accessible in this audience (Bargh & Chartrand, 1999).

This research marks a step in assessing the effects of media coverage of an issue that is highly salient to a particular audience. By doing so, this study contributes to media effects and social cognitive psychology literature in its effort to deconstruct the influence of primes

in real-world situations. Social cognitive psychologists have primed implicit attitudes, goals, and behaviors in controlled lab experiments, focusing on effects on a micro, individualized level (see Bargh, 2006 for a review). More recently, however, automaticity researchers are moving their research in the direction of assessing downstream, macro effects of external stimuli. For example, in their effort to demonstrate that brands can cause people to “think different,” Fitzsimons, Chartrand, and Fitzsimons (2008) conducted experiments that primed “creativity” and “honesty.” Just by flashing the Apple computer brand versus the IBM brand to participants subliminally, those in the Apple condition felt and behaved more creatively than those in the IBM or neutral conditions. They also used the Disney brand versus the E! brand to prime honesty. Many media priming researchers, particularly those who study political priming, have also focused on the macro level, showing how the salience of media items (stories about the president of the United States, in particular) can influence subsequent judgments made by a large audience. The trouble is that many of these political priming studies have not controlled for the exposure of the media antecedent as a stimulus (Roskos-Ewoldson, Klinger, Roskos-Ewoldson, 2007). The other two streams of media priming research — violence priming and stereotype priming — have offered up supportive findings with greater internal validity (see Roskos-Ewoldson, Klinger, & Roskos-Ewoldson, 2007 for a review). Few scholars, however, have produced controlled laboratory experiments using media antecedents as the primes and specifically testing not only exemplification theory, but network models of memory, which identify priming *intensity* and *recency* as key factors in determining the strength and endurance of a priming effect (Roskos-Ewoldsen et al., 2009; Dillman Carpentier, Roskos-Ewoldsen, & Roskos-Ewoldsen, 2008; Holman & Dillman Carpentier, 2009). Taking these two assumptions of network models into account, this study

tested the ability of two media exemplars of varied intensity to implicitly “tap into” what is likely a chronically accessible construct (see Zillmann & Brosius, 2000, p. 47) of maternal mental illness and then to prime subsequent judgments of a target character.

The specific goal of this study was to follow in the footsteps of social cognitive psychologists and media priming researchers and attempt to demonstrate causality between a negative exemplar of postpartum disorders drawn from the national news media and subsequent stereotypes of mental illness that individuals may hold against those who suffer from such disorders. The importance of establishing a causal link is far-reaching, extending beyond simply educating journalists to take greater care in their medical reporting. Indeed, this study is part of a stream of research into the highly affective area of medical decision-making, where a new mother’s goals, attitudes, and emotions all come into play to possibly deter them from seeking out the medical attention they need.

CHAPTER II

MENTAL HEALTH STIGMA IN A MEDIATED CULTURE

It is reasonable to assume that most new mothers have the conscious desire to maintain a healthy pregnancy and give birth to a healthy child. Being healthy could be considered a proximal goal and is therefore intentional (Moors & De Houwer, 2007). What is more difficult to pinpoint is how individual women define “healthy” and whether seeking treatment for prenatal or postpartum depression would necessarily violate that definition — and if so, why that is. Why would new mothers feel shamed into suffering with postpartum depression in silence? There could be many antecedents to the activation of what could be a nonconscious desire, or what Moors & De Houwer (2007) termed a remote goal, of being the “perfect” mother (or conversely, NOT being the imperfect mother) — from news stories of mothers who have killed their children (Barnett, 2005, 2006; Holman, 2009) to a desire to please others, such as one’s doctor, by transitioning easily into motherhood (Chewning, 2008). Following such a causal model, the remote goal could trigger the proximal goal to be healthy (Moors & De Houwer, 2007). Later, a new mother might engage in *avoidance* behavior in terms of her own health care (Luce, 1998). For example, she may avoid telling her doctor about her depressive symptoms because she does not want to give up breastfeeding in order to take medication for her depression. This trade-off, in her mind, might represent the only two options, though today there are medical options whereby women can continue to breastfeed while on antidepressant medication (Chewning, 2008). This subsequent behavior of avoidance is goal dependent, but unintentional (Moors & De Houwer, 2007). And as Wenger (2003) points out, our intentions are not necessary to cause our actions.

Indeed, automaticity researchers have pointed to various antecedents to nonconscious goal activation and subsequent behavior, including situations (e.g. threats to self-image, see Spencer et al., 1998; associating power to sex, see Bargh et al., 1995), temptations (Fishbach, Friedman, & Kruglanski, 2003), goal contagion (Aarts, Gollwitzer, & Hassin, 2004), significant others (Fitzsimmons & Bargh, 2003, Chartrand, Dalton, & Fitzsimons, 2007), and environmental features (e.g. novel situations, see Eitam, Hassin, & Schul, 2008) such as the mass media (see Berkowitz, 1984, 1990, 1994, 1997).

A wide range of research has been done on mental illness-related content in mass media, including content analyses of primetime dramatic programming (Signorielli, 1989), daytime television serials (Fruth & Padderud, 1985), other television programming (Taylor, 1957; Lang et al., 2006), popular magazines (Taylor, 1957; Gerbner, 1961; Byrd, 1979b; Wahl & Kaye, 1992), and films (Winick, 1978; Byrd & Pipes, 1981; Byrd & Elliott, 1985; Gerbner, 1959, 1961; Gerbner & Tannenbaum, 1960). Many of these studies have noted not only the extensive use of mental illness in storylines but also the perpetual portrayal of mental illness stereotypes (see Wahl, 1992 for a review of the literature). For example, Fruth & Padderud's (1985) study of 14 daytime serials, or soap operas, found that half of them featured at least one mentally ill character and 11.4 percent of the programming time was devoted to a mental illness topic. Wahl & Harman (1989) cite a survey of members of the National Alliance for the Mentally Ill (an alliance of patients and their families) stating that media sources — films and news stories about mentally ill individuals, and particularly those who kill others — as key contributors to the mental illness stigma. Indeed, as evidence of the media's contribution to the perniciousness of the mental illness stigma, Wahl (1995) points to a 1990 telephone poll of 1,300 adults (representative of the U.S. population) that sought to

assess their attitudes toward people with mental illness. Most of the respondents pointed to the mass media as providing most of their knowledge concerning mental illness. According to social scientist Robert P. Snow:

“It is no exaggeration to say that we live presently in a media culture. It means that nearly every institution — including religion, government, criminal justice, health care, education, and even the family — is influenced by the mass communication process” (as cited in Wahl, 1995, p. 90).

A media culture — or to be more specific — a *mediated* culture simply refers to the notion that often in our society we do not experience things firsthand. Many of our first encounters with a phenomenon such as mental illness are mediated through other means, whether it is through the personal stories of our friends and neighbors or through our interaction with mass media. Mass communication theories such as cultivation theory (e.g., Gerbner, Gross, Morgan, Signorielli, & Shanahan, 2002) and theories of the social construction of reality (e.g., Hawkins & Pingree, 1982; Potter, 1991) explain how mass media have played an important part in influencing individuals’ views of the world. However, some media scholars note that these theories may be going too far in explaining how and why individuals process and are influenced by mass media. Many, such as Shrum (2007), sought to understand macro media effects such as cultivation through a psychological lens. Such an “approach provides at least two important services: (a) It provides convergent validity for the theory, and (b) it provides an understanding of conditions that facilitate and inhibit the effect” (Shrum, 2007, p. 245). By drawing from a rich tradition of social cognitive psychology, therefore media priming theorists such as Berkowitz (2002) were instrumental in devising experiments to investigate how individual exposure to media stimuli can automatically lead to affective and behavioral responses. It is this stream of automaticity

research, and others like it in the realm of social cognitive psychology (see Bargh, 1989, 2007, for a review) that informed this study.

CHAPTER III

AUTOMATICITY OF STEREOTYPING AND IMPLICIT PREJUDICE

Automaticity as a concept is nothing new. William James (1890) wrote about the *principle of ideomotor action*, a term describing the notion that merely thinking about an action will likely lead to that action. Bargh (1989) pointed out that while many earlier social and cognitive psychologists saw behaviors as either “automatic” or “controlled,” the dichotomy is actually less clear-cut. He argued that just because an action did not fulfill all of the criteria for an automatic action, it wasn’t by default a controlled action. In addition, far more of our day-to-day activities are automatic than controlled. Indeed, Bargh (1989) has suggested a gradual view proposing three divisions into which most automatic processes fit: preconscious, postconscious, and goal-dependent. The predominant view of automatic processes also embraces a feature-based approach assigning the following qualities to automatic processes: *unintentional, involuntary, effortless, autonomous, and occurring outside of awareness* (Moors & De Houwer, 2007; Bargh, 1989).

In addition to the gradual view of and the feature-based approach to automatic processes, Dijksterhuis, Chartrand, and Aarts (2007) note that in order to explain experiments on automaticity in social behavior, one must keep five important concepts in mind: an input system, an output system, and three mediating items. The input system can include perception of external stimuli (such as the media) or one’s own thoughts. The output system includes motor programs, which are in charge of our behavior. Finally, the “effects of perception or thought on the activation of motor programs, and ultimately behavior, are

usually mediated by either *traits* or *goals* and by *behavioral representations*” (p. 57).

“Traits” is defined as an abstract term designating associated concrete behaviors (e.g., the politeness trait is associated with saying “thank you”).

Goals are “positively valued behavioral endstates,” and unlike traits, they include a feedback mechanism whereby one can monitor his or her progress toward a goal (Dijksterhuis, Chartrand, & Aarts, 2007, p. 57, citing Custers & Aarts, 2005a). Finally, behavioral representations are learned from infancy by mapping verbs onto concrete behaviors. It is the activation of these behavioral representations that mediate the effects of both traits and goals on subsequent behavior.

Zajonc (1980) calls Freud the father of the unconscious, and while cognitive psychologists have discredited much of Freud’s work, social cognitive psychologists have re-embraced his notions that elements in ourselves (e.g. goals) as well as in our environment (e.g., situations, significant others, brands, temptations) are strong determinants of our behavior (Spencer et al., 1998; Bargh et al., 1995, Fishbach et al., 2003, Fitzsimmons & Bargh, 2003, Chartrand et al., 2007, Eitam et al. 2008). Zajonc (1980) further argues that these unconscious processes are adaptive, beneficial, and functional for us. They save us energy, protect us from harm, and take care of much of the effort of day-to-day activities. They have served us far longer than our higher-order thought processes and can lead us to normative decision-making (see Dijksterhuis, Bos, Nordgren, & van Baaren, 2006) even though there are boundary conditions (see Payne, Samper, Bettman, & Luce, 2008).

Certainly, these automatic processes can, at times, be dysfunctional. “Action slips,” or complex behaviors we engage in without intending to, are examples of dysfunction, as they do not save us time (Bargh, 1989). There are times when our automatic processes are

maladaptive and aren't beneficial. For example, Spencer et al. (1998) put participants under cognitive load and demonstrated that those who were given negative feedback (to lessen their self-esteem) showed stereotyping against a member of a stereotyped group even under conditions where stereotyping doesn't occur. However efficient, automatic stereotypes are maladaptive in modern society; stereotyping is not reflective of the situation at hand, but merely of previous memory structures (Bargh & Chartrand, 1999).

Blair et al. (2001) defined implicit stereotypes as social category associations that become active via category cues. And in keeping with Bargh's (1989) explication of automatic processes, it is key that implicit stereotype activation occurs outside of the individual's awareness. Researchers who are assessing social judgments made about targets based on the trigger of related constructs in an individual's memory network make great effort to avoid events that would allow an individual to possibly correct for the judgment effect. They have utilized priming procedures...

...which cause the activation of various complex knowledge structures — for example, representations of social groups, significant individuals in our life, stereotypes and role concepts, stock situations — in a passive, unobtrusive manner, with the researchers then assessing the covert influence of these activated representations (Bargh, 2007, p. 4).

These priming procedures have allowed automaticity researchers to pinpoint accessible traits or concepts that produce effects in a controlled fashion (e.g. Devine, 1989, experiment 2), without having to rely on self-reported data in which individuals may be less honest in sharing their prejudicial views. In their efforts to pinpoint mechanisms of subsequent attitudes and actions, many researchers have focused on the “four horsemen” of automaticity: *awareness*, *intent*, *efficiency* and *control* (Bargh, 1994).

Awareness

Awareness implies consciousness, and automaticity researchers want to “tap into” the unconscious. The methods used to assess automatic stereotype activation (and other automatic processes) have certainly improved since the experimenters of the “New Look 1” era who often contaminated assessment of unconscious processes with conscious ones (Bargh, 1989). Current automaticity researchers have taken great care in activating trait concepts, stereotypes, and goals outside of participants’ awareness. They often use supraliminal tactics such as “scrambled” sentences, word searches, and other “language” tests in order to semantically trigger a concept. They also utilize subliminal methods that flash these semantic primes (as well as images) very briefly in either a participant’s foveal or parafoveal view. This process is often described to participants as a “diligence task” where they are to assess where different “flashes” occur on the computer screen by pressing a key on the keyboard. In addition, researchers often employ “funneled debriefing” methods at the ends of experiments to probe for any awareness of the true nature of the experiment (Bargh & Chartrand, 1999, 2000).

Devine (1989) really set the standard for research on automatic stereotype activation. She divided automatic stereotypes into two processes, stereotype activation and stereotype application. In her three experiments she was able to activate African-American stereotypes in low- and high-prejudice individuals (as assessed through the Modern Racism Scale). In the first experiment, Devine had participants list slang terms for African-Americans. From this exercise, she was able to assess that both low- and high-prejudice individuals were aware of African-American stereotypes. In her second experiment, the now-primed participants evaluated an individual of ambiguous race. From that experiment, Devine was able to

demonstrate that both low- and high-prejudice individuals could be influenced to judge a target individual more harshly, as a reflection of the hostility element of the African-American stereotype. She also showed that this was done outside of their awareness.

Intent

Intent implies that a behavior or action was planned. Devine's (1989) experiments certainly illustrate that participants (particularly low-prejudice individuals) don't intend to stereotype others. Chen and Bargh's (1997) "Password" study primed the hostility concept of the African-American stereotype and had participants play the game with a confederate. When the confederate wasn't performing well, the participants in the hostility-prime condition expressed more hostility than did neutrally-primed participants. As they were not aware of the true nature of the experiment, it wasn't their intent to act with hostility. However, their hostile behavior illustrated a "self-fulfilling prophecy," whereby encountered hostility tends to be countered with further hostility (Chen & Bargh, 1997, p. 542). As these researchers have illustrated, these behaviors can happen without the intention of the parties involved.

Efficiency

Evidence gathered by automaticity researchers indicates that automatic behaviors are quite efficient — in other words, resourceful and proficient. Zajonc (1980) points out that our automatic behaviors have evolved through millennia, and that in addition to being quick, they are adaptive and useful. Lower-order animals have the ability to quickly assess whether to approach or avoid dangerous situations. In much the same basic way, humans have adapted an automatic avoidance or shunning response to mental illness. Automaticity researchers

have assessed this automatic approach-avoid behavior in people with the use of a lever in a lab setting. Participants react to positively valenced words more quickly when they are asked to pull the lever toward them and react to negatively valenced words more quickly when they are asked to push the lever away (Chen & Bargh, 1999).

Control

Not only does control imply awareness, which is not necessary to activate stereotypes, it implies the notion of power over a situation. This is also the concept of most concern to legal practitioners, since if it were proven that individuals don't have control over their stereotyping behavior, there could be extreme legal ramifications. Loftus and Klinger (1992) addressed this issue by asking the question, "Is the unconscious smart or dumb?" They described a case in which a musical band was sued by the parents of two teenagers who claimed that subliminal messages in a particular song drove the teens to suicide. The judge in that case ruled against that notion; for the most part, the legal system tends to be more aligned with the causal self theory (Bargh & Chartrand, 1999), whereby our executive processes are in charge of our behavior (Loftus & Klinger, 1992).

In her final experiment, Devine (1989) illustrated that low-prejudice individuals could then suppress activated stereotypes and offer more positive assessments of African-Americans. This result demonstrated the possibility that outward expressions of implicit stereotypes can be controlled (at least when one is aware of the stereotype). However, in Bargh, Chen, and Burrows' (1996) series of three experiments, the researchers showed that behaviors were beyond the individuals' control. In the first experiment, they primed "rudeness," and participants in the primed condition were more likely than their neutral counterparts to interrupt the experimenter. In the second experiment, they primed the

“elderly” stereotype; afterwards, they found that those in the primed condition walked more slowly down the hall once the experiment was seemingly over. Finally, in their third experiment, Bargh et al. (1996) primed the African-American stereotype and noted that those participants in the primed condition behaved with greater hostility toward a request made by the experimenter. In funneled debriefing, the participants in these three experiments were not only unaware of the primes, but didn’t even realize they were behaving in the described fashion.

Research by Dasgupta & Greenwald (2001), Blair et al. (2001), and Wittenbrink et al. (2001), among others, have claimed effects in reducing implicit prejudice and stereotypes; however, as Devine (2001) points out, the theoretical explanation for their results is still “up for grabs,” so to speak (p. 759). Wittenbrink et al. (2001) primed participants with pictures of positive and negative African-American stereotypes (e.g. a picture of a street corner in a bad neighborhood, a picture of a family barbecue) and were able to show a lessening of implicit negative stereotypes in the positive condition. In addition, Dasgupta and Greenwald (2001) primed participants with pictures of both admired and disliked African-American and White individuals. Those in the admired African-American, disliked White condition demonstrated lowered implicit African-American stereotypes. Stereotypes are often maladaptive in modern society; fortunately, there is now proof that they can be moderated or even suppressed (see Devine, 1989, experiment 3). In addition, current research has demonstrated that when those low in prejudice were primed with the African-American stereotype, they specifically sought out articles that portrayed African-Americans in a positive light –this is an example of a negative automatic process yielding a positive result (Petty et al., 2009).

Bargh (1999) likens controlling stereotypes to breaking bad habits and has reviewed some of the research being done to moderate stereotype activation. For example, Blair et al. (1991) attempted on moderating stereotype activation by having participants use counter-stereotypical mental imagery. Bargh (1999) critiqued this paper (among others) and argued that Blair et al.'s findings actually provided support for the inevitability of automatic stereotypes. Although Bargh critiqued Blair et al.'s effort, however, he does indicate that he sees the value in continuing this line of research. He stated that automaticity researchers have come to childhood's end as evidenced by the successful activation of trait constructs, behaviors, and goals, and that future research needs to tackle the problems of how the same prime can activate two separate responses and which one wins in a given situation. He points to the need to study how primes play out serially and in real time (Bargh, 2006). While Bargh (2006) argues that little can be done to control stereotypes on an implicit level, previous research has shown that they are controllable on the explicit level (Devine, 1989) — and it certainly behooves individuals to control them in order to better acclimate to social situations. Automaticity researchers have successfully demonstrated the influence that one's memory structures have on the formation of stereotypes against particular groups. At the heart of the effort to control the influence of stereotypes is the recognition of antecedents to these stereotypic memory structures, such as the media, and with this recognition comes the ability to break these memory structures — an effort rather like unto breaking a bad habit.

CHAPTER IV

MEDIA PRIMING AND EXEMPLIFICATION

The Influence of Knowledge Accessibility in Social Cognition and Social Judgment

Both media priming and exemplification effects rely on the accessible knowledge structures of the audience. There are two bodies of literature investigating the effects of accessible knowledge or memory structures on perceptions of one's social world: social cognition research and social judgment research. As Stapel and Koomen (2001) point out:

... social cognition researchers often conclude that the standard knowledge accessibility effect is assimilation, whereas social judgment researchers often concur that the most natural effect of contextually activated information is contrast. (p. 230)

The mechanism by which assimilation or contrast effects occur "is essentially the same in nature" (Herr, 1986, p. 1107). It is in part a function of the number of common characteristics between the attributes of the primed category and the target to be evaluated. Simply put, social cognition researchers argue that, when primed with an accessible trait concept or category, most individuals will *transfer* that trait concept or category to an ambiguous target character and will ascribe such attributes to that character, as well (see Higgins, Rholes, & Jones, 1977; Srull & Wyer, 1979). On the other hand, social judgment researchers argue that accessible knowledge structures more likely lead to a contextual comparison of a trait concept or category to the target character. If that trait concept or category is extreme enough, a contrast effect occurs, resulting in impressions shifting away from the activated knowledge and a judgment of the target character that is *opposite* the primed trait or category (e.g., assumed intelligence of professors and supermodels versus

exemplars of a professor and a supermodel, see Dijksterhuis, A., Spears, R., Postmes, T., Stapel, D.A., Koomen, W., Knippenberg, A., Scheepers, D., 1998). But as Herr (1986) points out, assimilation effects are most likely to occur in cases where moderate categories are primed and ambiguous targets are judged. On the other hand, contrast effects are more likely occur when extreme categories are primed, and it wasn't until the early 1980s that researchers began manipulating extremity (see Herr, Sherman, & Fazio, 1983). Priming studies prior to this time often used stimuli such as sentence-completion tasks (see Srull & Wyer, 1978, 1979), where manipulation of extreme social categories might have been difficult (Herr, 1986).

But how does one determine whether an assimilation or contrast effect occurs beyond attempting to control for the extremity of the exemplar of a particular construct in priming either effect? In pointing out the plethora of individual differences that can influence how people form impressions, Stapel and Koomen (2001) stated that:

... Accessible cognitive structures such as trait concepts (adventurous, friendly), social categories (professors, introverts), scripts (going to a restaurant, getting a Ph.D.), procedures (solving problems, considering alternatives), goals (I want to become rich), specific event memories (an accident in Chicago, a trip through the southwest), specific person exemplars (Richard Nixon, Marilyn Monroe), specific object exemplars (a tennis ball, an apple), expectancies (Gordon is a nice guy), attitudes (I like Ike), stereotypes (women are from Venus, men are from Mars), and actual (I am achievement oriented) and desired (if only I could be like Serena) self-states may all be applied when forming an impression or constructing a judgment of a target stimulus. In other words, accessibility is an important theoretical construct in many of social psychology's subdomains (for reviews, see Eiser, 1990; Higgins, 1989c; 1996; Schwarz & Bless, 1992a; Sedikides & Skowronski, 1991; Stapel, 1997; Strack, 1992a; Wyer & Srull, 1989). (p. 230)

Most importantly, Stapel and Koomen (2001) ask: "What role do these accessible knowledge structures play in the perception of our social worlds?" (p. 230). Social cognition researchers and social judgment researchers have long investigated this question by two different

approaches: accessible knowledge either leads to a natural tendency toward assimilation or a natural tendency toward contextual comparison. Martin, Crelia, and Seta (1990) have argued that assimilation is the most natural effect because its process involves fewer cognitive steps, while that of contrast involves more steps. Assimilation effects have been found in classic trait priming experiments where adventurous or reckless traits (Higgins, Rholes, & Jones, 1977) and friendly or hostile traits (Srull & Wyer, 1979) were transferred to an ambiguous “Donald” character. Assimilation effects have also been found in priming stereotypes (Kunda & Thagard, 1996; Sagar & Schofield, 1980), but only within boundary conditions. For example, accessible and *pertinent* stereotype knowledge is used in the evaluation of a target only if the social category of the target is congruent with the activated stereotype (e.g. dependence in women or aggression in men, see Banaji, Hardin, & Rothman, 1993). In addition, a stereotype must be activated prior to participants’ encoding of information about a target’s behaviors in order for assimilation effects to occur (Park & Hastie, 1987).

On the social judgment side, Eiser (1990) argued that no judgment is ever made without some comparison, either implicit or explicit. Pointing to the Sherif and Hovland (1953) model, Eiser (1990) has stated that for those who hold strong attitudes, said attitudes likely serve as an extreme standard with which new, relevant information is contrasted. Support for the influence of strong attitudes in fostering contrast effects is apparent, for example, in the results of a study about pro-Israeli versus pro-Arab views of the 1984 Beirut Massacre, where partisan groups from each side both thought that identical samples of news coverage were biased against their respective sides (Vallone, Ross, & Lepper, 1985).

Two classic studies point to the perceived extremity of activated information as the main factor in the explanation of knowledge accessibility effects beyond the attitudes held by

individual participants (Stapel & Koomen, 2001). Herr's (1986) Ghandi/Robin Hood exemplar study found that assimilation is more likely to occur when the primed exemplars are moderate. Dijksterhuis et al. (1998) concurred with this result. They found that subjects primed with the "professor" stereotype performed better on a knowledge task than did those primed with the "supermodel" stereotype. Interestingly, however, the researchers also found contrast effects when participants were primed with extreme exemplars of professors and supermodels: participants primed with Albert Einstein performed poorly on the knowledge task, while those primed with Claudia Schiffer (a supermodel from the 1980s) performed well. In their final experiment, Dijksterhuis et al. (1998) found both assimilation and contrast effects for intelligence traits when self-referent words (I, me, my) were primed in conjunction with the Einstein exemplar. The Einstein prime, therefore, when coupled with a self-referent prime led to the activation of both the "intelligent" category and the "stupid" category being activated. More specifically, the respondents in this condition "tapped into" the intelligent concept via the professor stereotype as well as the unintelligent concept via self-comparison with the Einstein exemplar.

Media Priming of Stereotypes

How does an exemplar, or an example in the form of a photograph, pull-quote, headline, or some other illustrative or narrative element used to enhance a news story, work as a prime? How does such a thing "prime" — or activate — an individual's attitudes, thereby affecting subsequent judgments or evaluations, much in the manner that priming a well affects subsequent water flow (Roskos-Ewoldson et al., 2009)? Fiske and Taylor (1984) define cognitive priming as the use of prior knowledge or long-term memory to process new stimuli. In that context, a person who has been previously exposed to related information

automatically uses prior knowledge to evaluate new information. The study of media priming endeavors to explain the power of suggestion posed by particular stimuli and is rooted in top-of-mind accessibility, or the individual activation of concepts and the manner in which those concepts can influence judgments on an individual level (Roskos-Ewoldsen, Klinger, & Roskos-Ewoldsen, 2007; Roskos-Ewoldsen, Roskos-Ewoldsen, & Dillman Carpentier, 2009). According to Olson and Fazio (2009), “it is with [the] basic cognitive phenomena of attention, perception, and categorization that a relatively spontaneous attitude-behavior process begins” (p. 21). Indeed, journalists have long used exemplars to attract the attention of an audience, to draw readers into stories, and to maintain their sense of involvement in the stories. Journalists know that their stories are competing with myriad of other stimuli, and that exemplars are powerful allies in winning the viewership of their audiences (Zillmann & Brosius, 2000). Unfortunately, exemplars can also be used to misdirect the audience’s perceptions of various phenomena (Aust and Zillmann, 1996; Zillmann and Gan, 1996; Gibson and Zillmann, 1994) and to perpetuate stereotypes (Holman & Dillman Carpentier, 2009) — all without the audience being aware of this exemplification effect. In the realm of health, the literature on stereotype priming includes several studies indicating that commercials can prime stereotypes (Roskos-Ewoldson et al., 2009). Indeed, Pechmann and Ratneshwar (1994) used magazines to deliver anti-smoking messages that utilized the negative stereotypes of smokers (e.g., that they smell bad) to elicit a judgment effect directed at a target character who either smoked or did not smoke. Pre-exposure to the anti-smoking messages using these negative stereotypes resulted in a harsher judgment effect toward the target.

While media priming researchers have been successful in employing a variety of media such as advertisements (Pechmann and Ratneshwar, 1994), newsletters (Power, Murphy, & Coover, 1996), and music videos (Hansen & Hansen) to prime various stereotypes, none have focused on behavioral manifestations in the way that social cognitive researchers have. As Roskos-Ewoldsen et al.'s (2009) updated overview of media priming literature pointed out, however, Pechmann and Ratneshwar (1994) did suggest that their priming manipulation actually affected the participants' intentions to smoke or to refrain from smoking.

By contextualizing the media prime within exemplification theory, the present study contributes results beyond simply triggering a judgment effect based on a mental illness stereotype. This study has investigated the downstream effects on participants' perceptions of risk as well as on their behavioral intentions.

Exemplification Theory

Exemplification theory is a mass communication theory in the sense that scholars in this stream of research have investigated how the exemplification effect — or the mistaken assumptions that media consumers may harbor about an issue — can be traced to the mass media (Zillmann & Brosius, 2000). Exemplars are utilized in all forms of communication, including the news media (Sharkey, 1993), political advertising (Johnson-Cartee & Copeland, 1991), and fiction (Zillmann & Brosius, 2000). Exemplification theorists (e.g., Brosius, 2003; Zillmann & Brosius, 2000) have pointed out that the theory shares certain notions with cultivation theory in that fictional exemplars of victims of violence in television entertainment shows may be cultivating a more violent view of the world in the television

audience. Exemplars are often used because they have the ability to make abstract concepts more understandable; however, therein lies a problem:

Exemplars of typical murderers, typical sports fans, typical neurotics, typical Type A persons, typical feminists, and so forth, are likely to be rather nontypical in that they tend to be drawn from among the more extreme and memorable cases rather than from among the most frequently occurring ones. (Zillmann, 1999 p. 87)

As Brosius (2003) pointed out, journalists tend to select exemplars that support their arguments. This tendency was demonstrated in an extensive content analyses carried out by Gibson, Hoffman, and Seigler (1994) in the United States and by Daschmann and Brosius (1997) in Germany. These content analyses revealed that media feature significantly more pro-exemplars, or exemplars illustrating the controversy at hand, than counter-exemplars. For example, 96% of the 3,425 German exemplars were classified as claim-confirmatory, as opposed to claim-contradictory or ambiguous. This 96:4 ratio confirms the one-sidedness of issue exemplification in German television news magazine shows (Daschmann & Brosius, 1997).

While it has already been established that media exemplars can take the form of structural elements of a news story (i.e., headlines, pull-quotes, or photographs), an exemplar of a larger issue can also be represented by a single event (Zillmann & Brosius, 2000). Daschmann and Brosius (1999) also asked the question, “can a single event create an issue?” Holman and Dillman Carpentier (2009) and Holman (2009) argue that it can, particularly for the issue of postpartum depression and the manner in which it has been tied to the Andrea Yates case and to the images of this catatonic woman who killed her children. Guided by the findings of prior priming studies utilizing human exemplars (Herr, 1986; Dijksterhuis et al., 1998) to achieve both assimilation and contrast effects, the present study hypothesizes that both outcomes are possible; however, considering the assimilation findings of Holman and

Dillman Carpentier (2009) regarding this same topic, it seems likely that this study will produce similar results. This assimilation outcome is key in exemplification studies where risk perception comes into play.

After all, Gibson and Zillmann (2000) have already demonstrated that threatening images, or extreme exemplars, result in increased perceptions of risk that study participants hold for a target group. In their experiment, the researchers manipulated the images accompanying a story about a fictitious disease carried by ticks that had infected children. The story did not indicate the race of those at risk. The four conditions included: (1) a control condition (a story with no images), (2) a condition that juxtaposed the story with images of threatening-looking ticks and three pictures of black children, (3) a condition that juxtaposed the story with pictures of ticks and three pictures of white children, and (4) a condition that juxtaposed the story with pictures of ticks and two pictures of white children and one picture of a black child. The researchers found that in the conditions that featured only white or black children, participants showed increased perceptions of risk for that group.

As for the issue of postpartum depression, Barnett (2005, 2006) and Holman (2009) argue that news exemplars are perpetuating mental illness stereotypes and cultivating a more negative view of those who suffer from such disorders. Indeed, Barnett (2005, 2006) pointed out in her content analyses of women who have committed infanticide and filicide that many of the exemplars used by journalists were framed as violations of maternal myths, such as the ideal of the perfect mother. In addition, Holman's (2009) content analysis of 11 years of newspaper and magazine coverage of postpartum disorders points to the media's consistent misrepresentation of postpartum psychosis as the milder disorder of postpartum depression as a clear example of how the media have misled audiences about this issue. As there is

evidence that the media often cover the most extreme examples of postpartum disorders, this likely leads media audiences to associate that concept with negativity (Holman & Dillman Carpentier, 2009). As such, and in classic connectionist fashion, future exposure to a manifestation, or exemplar, of postpartum disorders might automatically lead to a negative evaluation of a target that is associated with that stereotyped group.

In order to test an exemplar's ability to prime prejudice against those suffering from postpartum depression, Holman and Dillman Carpentier (2009) manipulated the intensity of the supraliminal prime an exemplar can provide as well as how closely each exemplar embodied a given mental health/illness concept (e.g., Andrea Yates exemplified the maternal mental illness concept). As such, the exemplars — examples of mental illness, in the case of this experiment — tapped into the postconscious process of automaticity (Bargh, 1989). In the first part of the experiment, participants were told that they would be watching online slideshows about individuals who committed crimes. Then, by working on a sudoku puzzle, their short-term memory was cleared. In the second, seemingly separate, part of the experiment, the participants were asked to watch a health communication video about postpartum depression and to evaluate the woman in the video who had suffered from the disorder.

Holman and Dillman Carpentier (2009) utilized online slideshows, which also “tapped into” the vividness element that many exemplars possess, to serve as a vehicle for the study's exemplars. The first of these featured a slideshow about Andrea Yates —the Houston woman who drowned her five children in a bathtub in 2001 — and served as a high intensity prime in that this mentally ill woman killed five children here in the United States. The medium intensity prime featured a mentally ill Australian man who raped and murdered

his daughter. Since the participants in this experiment were American students, this prime was less intense than the Yates case because it occurred outside of the United States and involved the death of only one person. The researchers reasoned that a mother killing her young children would be more disturbing to the study's participants than would a man killing his daughter. Finally, the low intensity condition involved a carjacking in which nobody was killed. The medium and high conditions triggered the mental health/illness concept, with the high condition making the issue of postpartum disorders more salient to participants, who were then asked to evaluate a target in a subsequent health communication video about postpartum depression. These researchers also included a condition featuring a simple semantic prime that directly tapped into the mental health/illness concept. This stimulus resulted in the strongest affective response to the target character, suggesting that individuals most likely have automatic stereotypes against those who have suffered from mental illness. However, Holman and Dillman Carpentier (2009) also found that the Andrea Yates exemplar served as the strongest prime for participants' negative overall evaluations of the target character's well-being. This finding suggests that perhaps the Andrea Yates exemplar tapped into participants' schema as drawn from past media coverage of the case, which, in turn, activated their judgments on the related issue of postpartum depression.

The Exemplification Effect

Dual-processing theories such as the Elaboration Likelihood Model (Petty & Cacioppo, 1981), the Heuristic-Systematic Model (Chaiken, 1980), and the MODE model (Fazio, 1990) indicate that people process persuasive information in two different ways: they can either deliberate over it or they can rely on heuristics (see Chaiken & Trope, 1999). Exemplification theory is built upon this notion of heuristic processing.

Dolf Zillmann developed exemplification theory in order to explain how traditional news practices and procedures could be misleading audiences (Zillmann & Brosius, 2000; Bryant, Roskos-Ewoldsen, & Cantor, 2003). According to Zillmann, individuals base their judgments about an issue on samplings of occurrences and that exemplars in news reports provide cognitive shortcuts that individuals use to group information into easy-to-process pieces (Zillmann, 2006). Researchers have looked to exemplification theory in order to understand how audiences select and retain information in terms of risk perception (Aust & Zillmann, 1996; Gibson & Zillmann, 1994) and health risk perception (Zillmann, 2006). Slovic et al. (2004) pointed out that according to modern theories in cognitive psychology and neuroscience, people develop understanding of risk in two ways — in an analytic, logical way, or in experiential, intuitive way. These can be differentiated by *risk as feelings*, or intuitive reactions to danger, and *risk as analysis*, or the reasonable reactions to threats (Loewenstein et al., 2001). Ultimately, exemplification theory predicts that when you have an exemplar, it is easier for people to react emotionally to, encode, and then process the information linked to that exemplar. Therefore, such information is often easier to remember than mere base-rate data (Zillmann, 1999) — like that women have only a one in 1,000 chance of suffering from postpartum psychosis. In summary, exemplars exhibit a disproportional influence on risk and safety assessments. In using this influential power for good, however, journalists can harness exemplars to draw attention to important health issues and create a greater readiness for protective and corrective action in media audiences (Zillmann, 2006).

Previous studies, however, have not found such noble use of exemplars in the spreading health information. In Barnett's analysis of 52 articles about Andrea Yates

published in the *Houston Chronicle* and *Newsweek* between June 2001, the month the murders occurred, and March 2002, the month of Yates' first sentencing, the researcher found little coverage of postpartum illness (Barnett, 2005). While many of the seven articles in *Newsweek* allowed that Andrea Yates suffered from some sort of mental illness, the *Chronicle's* 45 articles all portrayed a woman who was using a postpartum disorder to cover up her own immorality. Only one article in that local newspaper of record looked into the issue of depression. However, the reporter underestimated the impact of postpartum disorders by characterizing Yates' illness as postpartum depression instead of the more devastating postpartum psychosis. Barnett concluded that journalists might approach stories of infanticide "from the angle of what medical experts know and do not know, how families can recognize warning signs that may indicate violence, and where families can turn for help, if such places exist" (Barnett, 2005, p. 23). However, in a textual and content analysis of 250 national news stories published over a 12-year period that covered Andrea Yates and nine other cases of infanticide and filicide, Barnett found that journalists often relied on police officers to supply the facts of the case and relied on attorneys, relatives, and neighbors to explain the women's actions. Journalists often failed to seek out medical experts to explain why these mothers killed their children (Barnett, 2006).

Martinez et al.'s (2000) content analysis of 19 years of magazine coverage of postpartum disorders spanning from 1980 to 1998 consisted of two studies; the first assessed nineteen articles about postpartum depression and the second examined eight articles about "the baby blues." The articles in both studies were analyzed for their attention to etiologies — origins of the disorders — as well as to symptoms, treatments, resources, and demographic assumptions about the audience. The findings in both studies indicate a strong

bias toward the use of the medical model (Dalton, 1980; Stowe & Nemeroff, 1995; Johnston-Robledo, 2000) in explaining these disorders, as opposed to the stress and coping (Lazarus & Folkman, 1980; Stern & Kruckman, 1983) or feminist models (Martinez et al., 2000).

In Barnett's (2006) textual analysis of media coverage of the Andrea Yates' arrest and murder trial,² as well as in her later analysis of media coverage of women who have committed infanticide, she describes how journalists perpetuate the myth of the "perfect mother" through their biased use of narrative. She found that most of the analyzed stories utilized at least one of four particular narratives: (1) the "perfect/imperfect mother" narrative, or stories that position the woman who committed infanticide as insane or evil; (2) the "good mother" narrative, or stories of women who claimed to have loved their children but who admitted to harming them; (3) the "accountable mother" narrative, or stories that illustrate the fact that women are held to higher standards of parenting than are fathers, and which position men and the community at large as victims; and (4) the "wounded community" narrative, or stories that portray the community as the victim of a deceitful mother (Barnett, 2003, 2006). According to Barnett, "narratives help us construct the irrational as rational, the illogical as sensible, and the tumultuous as safe. They provide a way for us to establish cause and effect and explain to ourselves and others the reasons why events transpired at they did" (Barnett, 2005, p. 13).

More important here, narration aggregates events that exhibit sufficient phenomenal similarity to warrant their being classified as manifestations of the same kind. Such grouping implies that each and every grouped event, to the extent that it shares all essential attributes with the remaining grouped events, is capable of representing the group at large – meaning that it is capable of providing reliable information about all other events in this group and thus about the group itself. It is this capacity of individual events that defines them as exemplars of an event group." (Zillmann and Brosius, p. 3)

Journalistic norms perpetuate the use of both narratives and exemplars to support those narratives (Barnett, 2005, 2006). These conventions provide an easier route to compelling reporting. However, in terms of medical reporting, the use of exemplars may not be serving the public in a constructive way (Zillmann, 2006).

The first exemplification studies were published in the early 1990s; among them was Zillmann, Perkins, and Sundar's (1992) study on the use of exemplars in magazine reports on dieting. The researchers manipulated how closely the exemplars, or examples of people who did or did not regain weight after dieting, matched the base-rate data presented in the stories. They employed three conditions: (1) a condition that included interviews with those who had regained weight; (2) a condition that included two interviews with people who had not regained weight and one interview with a person who had regained weight — this presentation was representative of the base-rate information in the story; and (3) a condition that presented an even mix of those who had regained weight and those who had not. The last condition reflects the journalistic practice of presenting both sides of a story. The researchers found that those participants in the condition presenting examples only of those who had regained weight did in fact overestimate the percentage of people who typically regain weight after dieting (even though they were given the base-rate data in the story). No *sleeper effect* was detected in the delay conditions' result — an effect which later exemplification studies were successful in achieving. The authors' stated that the likely reason why they found no sleeper effect was that participants most likely returned to their prior notions of weight loss phenomena.

Exemplification researchers have not only looked at how the distribution of exemplars in relation to base-rate data influence the impressions and evaluations of issues,

they have also looked at the effect of the intensity of the exemplars. This line of inquiry taps into the affective heuristic and how people are drawn to and remember emotionally evocative information more than pallid information (Zillmann, 2000). Gibson and Zillmann (1994) tested the intensity and precision of exemplars in an article that resulted from Gibson's dissertation research. Like many of the exemplification studies, the experimental conditions incorporated a story that was manipulated in various ways and was then embedded with other news stories to disguise the nature of the experiment. This supraliminal manipulation is key to exemplification research — for it is important that the effect occur outside of the participant's awareness. It is important for exemplification researchers to rule out demand effects in their experiments in order to give these studies external validity and prove that these are true media effects. Gibson and Zillmann (1994) sought to measure the impact that manipulating exemplars in reports about a relatively novel issue, carjacking, had on participants in Tuscaloosa, Alabama. They manipulated precision of the base-rate data with four specific percentages of the risk of bodily injury and death as opposed to imprecise base-rate data (i.e. Most escape with no injury, some get injured, a few get seriously injured, it's rare to get killed in a carjacking). Then they manipulated the intensity of the exemplars in four conditions ranging from exemplars with no injuries to exemplars of those who were killed. Participants in the extreme-exemplar conditions overestimated the frequency that carjackings result in serious injury or death. These researchers did find a sleeper effect in this study, where the impressions of risk to themselves and others increased after a delay. This simply means that these researchers still witnessed an exemplification effect, even after a time delay. Some researchers have found exemplification effects even after a 10-day delay

(Zillmann, Gibson, & Sargent, 1999). Indeed, Daschmann (2001) concurs that exemplification effects are stable over time.

Aust and Zillmann's (1996) study of the portrayal of two experimental conditions — one was a story about salmonella in fast-food restaurants and the other was about gun violence — looked at the differences in the exemplification of victims on TV newscasts. Like in all exemplification studies, there was a control condition without any interviews of victims and relatives. Then there was a condition that had victims and relatives recount their stories calmly. Finally, the third condition had victims and relatives recount their stories with a lot of emotion. The extreme condition resulted an increase in participants' assessments of risk to their safety.

Zillmann and Gan's (1996) study on skin cancer exemplars investigated the impact that intense exemplars in the form of threatening images can have on perceptions of health risks garnered from TV news reports. They presented a news report embedded in other reports that presented a story about the risks of sun exposure. The story included base-rate data about the risk. The first experimental condition included an image of a sunburned shoulder with a small melanoma, while the other condition exposed participants to images of someone with a large melanoma, as well as a surgical procedure removing a cancerous growth. They, too, found that participants overestimated personal risks of skin cancer as well as the risk to the public. This study also included delay conditions and found a sleeper effect for those in the extreme condition.

Daschmann's (2001) extensive series of nine experiments on more than 1,300 participants have shown that extreme exemplars have more of an impact than pallid ones, with the more extreme selectiveness of the exemplars corresponding with more extreme

judgments. In addition, he found that exemplification effects are independent of prior opinions and involvement of participants. Researchers have also shown that the distribution of exemplars affect how issues are perceived (Brosius, 1999), and have also shown how little the base-rate data has an impact on subsequent judgments (Daschmann, 2001; Gibson & Zillmann, 1994). The content analyses by U.S. and German researchers have also shown how prevalent exemplars are in news reports (Zillmann & Brosius, 2000). In addition, findings of these extensive content analyses show that most exemplars support the controversy being reported (despite its possible misrepresentation of base-rate data).

Indeed, Holman's (2009) content analysis of 11 years of media coverage of postpartum disorders found that exemplars overall were decidedly negative (58.4%) with 70.9% of newspapers and 33.8% of magazines presenting negative exemplars. This study's first hypothesis predicted that in their coverage of postpartum disorders, journalists would use exemplars of women who have committed violence against their children significantly more than exemplars of women who are simply suffering from a disorder. Out of the 202 magazine and newspaper articles about postpartum disorders, 50.5% of the articles featured a story about a mother who killed her children or husband (one case), 3% featured stories about suicide, 12.9% featured a story about a celebrity who either suffered from postpartum depression or commented on the disease, 13.3% featured stories about regular mothers who suffered from postpartum disorders, 15.8% of the stories did not use an exemplar, and 4.5% featured some other commentator.

Chi-square analysis supported this hypothesis, even when the file was split to compare stories before the Andrea Yates case and those written after the June 20, 2001 murders. Of the 37 stories about postpartum disorders before Andrea Yates murdered her children, 22 featured

women who killed and only 3 were stories about regular mothers who suffered from a postnatal disorder, and 7 were stories general stories about postpartum disorders ($\chi^2 = 52.351, p < .001$). Of the 165 stories about postpartum disorders written after Yates drown her five children, 80 were stories about women who had committed violence against their children or husband, 24 were about regular mothers, and 25 were general stories about postpartum disorders ($\chi^2 = 173.164, p < .001$). This is despite statistics that say only 4% of the .01% of new mothers who suffer from postpartum psychosis actually go on to commit infanticide (Parry, 1995).

Holman (2009) argues that the case of Andrea Yates served as a focusing event, where many were introduced to the issue of postpartum disorders for the first time. Unfortunately, many reports misrepresented this story as a case of the much more common postpartum depression, and as such, this case has served as an exemplar of that particular postpartum disorder. Unfortunately, it appears that those who fear they are suffering from postpartum depression could be associating their perceptions of risk to the outcome of the Andrea Yates' case. Perhaps the media portrayals of mental illness (and not just this issue), along with individuals' automatic stereotypes against mental illness, are contributing to the fear that new mothers have in seeking treatment for a very treatable, but serious condition.

CHAPTER V

MEDICAL DECISION-MAKING AND AVOIDANCE

Dual-process theories have been devised to explain how individuals attend to, evaluate, and then react to incoming information. Theories have been devised to explain person perception (Brewer & Srull, 1988; Fiske & Neuberg, 1990), attributional inference (Trope & Gaunt, 1999), attitude access (Fazio et al., 1986), and persuasion (Chaiken, 1980, Petty & Cacioppo, 1981). Some have given more weight to the two processes working together simultaneously (Chaiken, 1980) while others posit that they occur separately (Petty & Cacioppo, 1981). Petty, Brinol, & Priester (2009) have stated that the Elaboration Likelihood Model best explains attitude change that is influenced by the mass media.

In addition to testing the notion that a particular media exemplar can prime prejudice of maternal mental illness, this study investigated how past experience with media portrayals of postpartum disorders may be influencing pregnant women's downstream medical decision-making behavior. This study asked these pregnant participants to evaluate a health communication video seeking to persuade her to monitor herself for symptoms of postpartum depression and to speak to her doctor about it. Previous research has suggested that later in time, women are engaging in avoidance behavior instead (Whitton, Warner, & Appleby, 1996). This is despite the notion that medical professionals (considered expert/attractive sources) may be telling them to do so, or that there are strong logical arguments supporting the fact that new mothers who are depressed need to seek medical intervention. The health communication video in the second part of this study features two strong arguments and one

expert source. The first argument simply shows the viewer how rare postpartum psychosis is when compared with “baby blues” and postpartum depression. The second argument is made on camera by an OB/GYN, a medical expert who explains that research has shown that infants of depressed mothers can experience developmental delays (Chewning, 2008). The video ends with a list of symptoms of postpartum depression and a statement that if the woman is experiencing any of these symptoms, that she should contact her doctor. This study sought to find out whether these pregnant women would counter a negative subliminal prime by processing two strong arguments — one being made by an expert source — in their subsequent evaluations of their own risk perception and likelihood of engaging in avoidance behavior.

Deciding on one’s best course of treatment is a complex emotional experience for many individuals, where many important decisions come into play. For example, women who are diagnosed as depressed during pregnancy are burdened with weighing the benefits that medication will have on their own health against the risks² for their unborn child (Siegel, 2005). However, there are many downsides³ to a woman who chooses not to seek treatment during pregnancy, not only for the mother, but for the baby as well (Colino, 2002). For example, a study from Emory University in 2001 found that infants whose mothers had been depressed during pregnancy showed higher than normal levels of the hormone cortisol in their blood, which is an indicator of stress (Siegal, 2005). In addition, if the new mother is diagnosed with postpartum depression after giving birth, she may feel like she has to weigh choosing to continue to breastfeed against taking medication for her condition, even though there are medication options for some that allow the woman to continue to breastfeed (Chewning, 2008). Certainly, if they are actively involved in monitoring these women for

depressive symptoms, medical professionals can help clarify these options and help new mothers negotiate the choices they have and persuade them to do what is best for themselves and their babies. However, this is not always the case. Busy obstetricians may be avoiding pressing the issue of treating prenatal and postpartum depression with their patients in an effort to keep their office on schedule (Chewning, 2008). Dr. Shaila Misri, a clinical professor of psychiatry and obstetrics and gynecology at the University of British Columbia in Vancouver concurs: “In an obstetrician’s or family practitioner’s office, most women don’t get more than 15 minutes for a prenatal checkup. Women are embarrassed to report these negative symptoms to their doctors — and often they don’t know why they’re having them. And the doctors don’t usually ask” (Colino, 2002, p. F1).

Attractive Sources: Influence of Medical Professionals

The Elaboration Likelihood Model (Petty & Cacioppo, 1981) was devised as a response to earlier cognitive response approaches to persuasion research that didn’t account for decision-makers who may be low in ability or low in the need for cognition. It is a model that sought to account for those who do not actively attend to or deliberate over persuasive messages. Instead of relying on the central, cognitive route, these individuals turn to the peripheral, more automatic, route to processing incoming messages. Petty and Cacioppo (1986b) realized that individuals cannot possibly think actively about every piece of information that they encounter. Instead, when they are cognitively overloaded or low in ability to process a message for some other reason, they rely on heuristics instead. Zajonc (1980) suggested that people operate under two systems, but that the affective (System 1) system is more important. ELM is a dual-process model that gives the cognitive (System 2) system more weight (Petty et al., 2009).

According to the ELM, attractive sources, such as a good-looking spokesperson or celebrity, serve as a heuristic for those who aren't deliberating over the persuasive message, or rather, those taking the peripheral route to persuasion. However, in their book chapter on media effects, Petty et al. (2009) have noted that those who are low in the need for cognition and who find a source not to be trustworthy (e.g. *The National Enquirer*) then tend to elaborate more on the message, thus moving over to the central route to persuasion.

Attractive sources may also include expert sources such as a medical professional. According to ELM, expert sources serve two purposes and are functional in both the central route and peripheral route to persuasion. They can provide a heuristic for those who are low in ability to process a persuasive message (i.e. experts must know what they are talking about, so I'll follow their advice). Experts can also add weight or credibility to a strong argument for those who are involved in processing a persuasive message.

Strong Logical Arguments: Possible Path for Persuasive Health Messages

According to the Elaboration Likelihood Model, strong logical arguments serve to persuade those who are high in ability to take in a persuasive message and follow the central route to persuasion. In addition, ELM posits that people want to hold correct attitudes, so certainly when there are elements like trustworthy, expert testimony or strong statistical support in a persuasive argument, individuals have more confidence in the argument. Petty et al. (2009) argue that the changes in attitudes that result from those who deliberate over a message are more enduring and are less resistant to counter-arguments than those attitudes changed via the peripheral route. However, Zajonc (1980) asserts that thoughts enter feelings at various points of the affective process, and the reverse can be true of cognitions. Affective responses can come up at any time during registration, encoding, retrieval, or inference. One

of these responses can be one's confidence in his or her thoughts toward the message. Petty, Brinol, and Tormala's (2002) self-validation theory states that the relationship between an individual's thoughts and attitudes should be greater when people have confidence in those thoughts (Petty et al., 2009). A strong logical argument — like the fact that a clinician has found that untreated depression in mothers can cause slower development in their babies (Chewning, 2008) — may give new mothers the confidence to seek medical intervention if they already have positive attitudes toward the messages they are receiving from their health care providers. Petty et al. (2002) found that when thoughts are favorable toward a message, boosting confidence in their validity increased persuasion, but injecting doubt decreased persuasion. On the other hand, when individuals' thoughts toward a message were unfavorable, increasing confidence resulted in decreased persuasion, while decreasing confidence in those thoughts increased persuasion.

So, this research on cognitive responses suggests that generating positive or negative thoughts to a persuasive message is an important aspect in producing attitude change, but it's not the only one. People need to have confidence in those thoughts if those thoughts are to have an effect in the "yielding" to a persuasive message. Once again, a strong argument can give them that. Interestingly, Brinol and Petty (2003) have been able to manipulate the confidence level of participants outside of their awareness. By having participants nod their head (to raise confidence) or shake their head (to lower confidence), these researchers found similar effects to earlier explicit confidence manipulations and subsequent responses to persuasive messages. This raises the question as to how much a pregnant woman's condition is influencing her confidence and how environmental triggers can undermine it.

Non-conscious Paths to Persuasion and Decision-making

So while the Elaboration Likelihood Model puts more weight on the thoughtful process (the central route) that people engage in when exposed to a persuasive message, Zajonc's (1980) declaration that "preferences need no inferences" has given rise to research streams that posit that most individuals are not deliberating over decisions, but are relying more on automatic processes (p. 151). Indeed, Bargh (2002) points to the persuasive power that lies in non-conscious processes. He agrees that the most influential social cognition models are the Elaboration Likelihood Model (Petty & Cacioppo, 1981) and the Heuristic-Systematic Model (Chaiken, 1980). He also points out that the predominant paradigm of decision research is an information-processing model. In addition, most of these information-processing models have treated non-conscious influences as "hedonistic impulses" (Bargh, 2002, p. 280). Yet, there is growing evidence that individuals are making choices without conscious awareness and guidance. He criticizes models that assume that individuals deliberate over their choices or behaviors as likely missing "much of the character and flavor of consumer behavior in situ" (Bargh, 2002, p. 281).

Non-conscious primes can trigger implicit attitudes, emotions, and goals (Bargh, 2006). All of these can serve as mediators in the persuasion and decision-making processes on a conscious level and very likely can lead to "yielding" on a non-conscious level as well. Automaticity researchers have shown that implicit attitudes, emotions, and goals can all lead directly to behaviors that are aligned with their consciously triggered counterparts (Bargh, 2006). Fazio, Powell, & Williams (1989) have noted that when a relevant attitude comes to mind, this can lead to a consistent behavior. Automaticity researchers point out that these

attitudes can be non-conscious and serve as important influences to behavior (See Bargh, 2007 for a review).

Moving beyond attitudes, Zanna-Rugar, Bettman, and Fitzsimons, (2007) were able to prime implicit emotions. Their work was a reaction to previous work that was priming simple differences in valence. Instead they wanted to see what would happen by priming emotions of similar valence. They were able to subliminally prime “guilt” and “sadness” which are similar in negative valence, but evoke different feelings and behaviors. In particular, they were able to evoke more “helping” behavior from those in the guilt prime condition than those in the sadness prime condition. They not only controlled for the individual difference of guilt-proneness, but assessed participants’ emotional states immediately after the subliminal primes were conducted. They found no explicit differences in the emotional states of the participants, thus proving that the emotions were activated implicitly. Winkielman & Berridge’s (2004) commentary on unconscious emotion cited two of their own studies that subliminally primed individuals with pictures of happy and sad faces. In seemingly separate experiments where participants were asked to evaluate a new drink, those in the happy condition poured and drank more of the beverage and evaluated it more positively. Of course, participants’ goals (whether they needed to quench their thirst or not) influenced the results. There was no difference between conditions for those who were not thirsty (a “goal” that was both measured and manipulated in their experiments).

A person’s goals are also important mediators to his or her acceptance of a persuasive message. For the most part, persuasion researchers who have taken the cognitive response approach have assumed that people go around consciously aware of their goals in their decision-making processes. However, Fishbach and Dhar (2005) were able to prime health

goals outside of their participants' awareness. In particular, when participants were primed with a "progress" goal toward a healthy lifestyle through a weight-loss comparison scale that was smaller (thus resulting in the illusion of more progress being made), these participants were more likely to accept the chocolate bar as a parting gift over the healthy snack. In addition, those who were asked if they wanted to indulge in a delicious, albeit fatty, meal (at a later time) just before they began their workout were more likely to agree than those asked after their workout. Thus, they were "borrowing" from their perceived progress toward their goal of being healthy. Chartrand et al. (2008) were able to prime "thrift" and "prestige" goals outside of participants' awareness as well. In addition, Chartrand and her colleagues were the first to show that brands could prime individuals' behavior and that non-conscious goals behave much like consciously activated goals. In particular, once the non-conscious goal was satiated with a goal-congruent choice (like socks or a watch), the goal was no longer active.

Avoidance Behavior

Luce (1998, 2001, 2005) and her colleagues' work on emotion, trade-offs, and avoidance in health decision-making (Luce & Kahn, 1999) is also illustrative of the importance of emotion in persuasion. Luce and Drolet (2004) has shown that those under cognitive load (and as a result would be low in ability and would be taking the peripheral route to persuasion according the Elaboration Likelihood Model) produced more normative decision-making behavior. These researchers argue that the cognitive load lessened the impact that the self-referent element had on the person's decision-making process. Usually when one is dealing with an emotionally charged decision (like weighing the safety of a car against its price, or the safety of an apartment against other factors, see Luce, 1998), one tends to avoid making trade-offs that could result in more negative emotion (Luce, Bettman,

& Payne, 2001). Often these emotions are evoked beyond a person's awareness, yet are still quite powerful influences in the decision-making process. Luce and her colleagues have pointed out in their research that people who feel more emotion tend to avoid difficult choices by choosing avoidance behaviors instead as a coping mechanism (Luce, Bettman, & Payne, 2001; Luce, 2005).

One might argue, according to previous medical decision-making studies (Luce, 2005; Whitton, Warner, & Appleby, 1996), that pregnant women who are weighing decisions that could affect their proximal goal of being healthy and having a healthy child are likely in an emotionally charged state. As such, they may avoid making trade-offs, like possibly having to give up breastfeeding⁴ (a possibility, at least in their mind) in order to take medication for depression. They may inhibit the goal to maintain their own (mental) health in order to ensure the health of their child (e.g., by breastfeeding). This inhibition of conflicting goals is one of the seven principles of goal activation (Forster, Liberman, & Friedman, 2007) and could be illustrative of the "healthy" goal further mediating behavioral intentions.⁵ Postpartum, a new mother may want to avoid making the trade-off of appearing less than healthy, or less than perfect. As a result, she may just avoid telling their doctor that she is experiencing depressive symptoms. The thought of one's intention to be a good mother or a healthy mother could mediate subsequent behavioral intentions in this experiment (See Figure 2). Luce (1998) has pointed out that mediation is said to exist when (1.) the independent variables (prime condition) influence the potential mediator ("healthy" goal; "good mother" goal), (2.) the potential mediator influences the dependent variables (vulnerability, avoidant choice) and (3.) the relationship between the independent and

dependent variables is weakened when the mediator is used as a covariate. These criteria also assume that the independent variables influence the dependent variables.

So are pregnant women consciously deliberating over their choice to be healthy or not? Sure. For example, are they deliberating over their choice to eat organically during their pregnancy? Yes, most likely. Are they deliberating consciously over their choice NOT to talk to seek medical intervention despite experiencing symptoms of postpartum depression? Not likely, and this study intended to be a first step in showing why they may not be by (1.) investigating whether their associative networks are likely connecting the concept of maternal mental illness to psychotic, criminal behavior; and (2.) investigating whether a goal prime is mediating a persuasive effect (which was held constant in this experiment) on subsequent intended behaviors. As such, it was predicted that their perceived risk perception would be increased as well as the likelihood to engage in avoidance behavior, despite the presence of strong arguments and an expert source in the health communication video.

CHAPTER VI

HYPOTHESES AND RESEARCH QUESTIONS

This investigation provides the opportunity to move beyond the findings that Holman and Dillman Carpentier (2009) achieved with college students and test these hypotheses on a highly involved audience, pregnant women. The results of this priming study bring attention to medical decision-making, specifically of those seeking treatment for depression where the decision could intimately affect another person (the unborn child if the mother is depressed while pregnant, or the newly born child where treatment options and the decision to breastfeed come into play for a woman who is experiencing postpartum depression). The Elaboration Likelihood Model (see Petty et al., 2009) may provide a framework for investigating the process involved in persuading a woman to evaluate herself as potentially suffering from postpartum depression and then having the courage to talk to her doctor about it. Her motivation to scrutinize issue-relevant information may be high, but her ability may be low.

There are certainly other medical decisions that parents have to make on behalf of children and have to weigh risks versus benefits. Consider all the parents of young children who fear that inoculating their children against diseases such as polio and small pox could cause autism. There are also parents who are considering whether to inoculate their daughters against HPV with a new medication, or whether to treat a child with Attention Deficit Disorder with medication or not. These are all situations where parents are on the high-elaboration end, but conversely, their ability to know or understand all of the data may not be

high and therefore, they may be more likely to seek out peripheral cues, such as a media report that employs exemplification, in making medical decisions when they are accountable for someone else's health

Dissonance theory comes into play here as well. Petty, Unnava, and Strathman's (1991) state in *Theories of Attitude Change*:

...the dissonance paradigm most relevant to consumer attitudes involves the consequences of choice among alternatives (Petty and Cacioppo, 1984b) ... a person must accept the negative features and consequences of the chosen alternative, and must forgo the positive features and consequences of the rejected alternative" (p. 256).

Many new mothers want to do everything right for their babies. They may suddenly feel at odds with their societal and self-perpetuated obligations to their baby if they also find that they may be suffering from postpartum depression. They may feel like they have to make a trade-off in deciding to treat themselves and forgoing their idealized vision of their motherhood experience as well as overcoming their perceptions of the stigma of mental illness. On the one hand, a risk-benefit analysis would show that improving a mother's mental health is important in the child-rearing process, particularly when studies have shown that the children of mothers with untreated depression can suffer from developmental delays (Luskin et al., 2008). However, in addition to a treatment option (antidepressants) that may be going against her beliefs (providing an all-natural experience for her and her baby), her decision-making ability may be altered by her state of mind, resulting in low ability.

That said, what this study aimed to accomplish was to take the first step in unpacking what is likely a very complicated medical decision-making process. This study sought to ascertain whether a media exemplar can prime a stereotype of mental illness in a highly involved audience. More importantly, this study investigated whether the influence of the

prime would affect whether respondents consider themselves at greater risk of being a victim of this condition and whether they intended to do something about it if they become victims.

And so the literature leads us to the following hypotheses and research questions.

First of all, social cognition researchers assert that assimilation, or transfer, of traits from an exemplar to the target character is most likely to occur.

H1: A treatment prime that exemplifies a concept of extreme maternal mental illness will make a stronger contribution to perceptions of hostile trait characteristics of a target character in a video clip about postpartum depression compared to a non-extreme prime.

Conversely, social judgment scholars posit that contextual comparison is most likely to occur between the exemplar and the target character; therefore, a contrast effect will occur where the traits of the exemplar will not be transferred to the target, but will instead provoke a judgment that is opposite than what the traits necessitate.

H1a: A treatment prime that exemplifies a concept of extreme maternal mental illness will lower perceptions of hostile trait characteristics of a target character in a video clip about postpartum depression compared to a prime of a non-extreme prime.

Again, assimilation may occur, so the following hypothesis is warranted.

H2: A treatment prime that exemplifies a concept of extreme maternal mental illness will lessen pregnant women's perceived overall well-being of the target character compared to a non-extreme prime.

Conversely, contextual comparison may occur, so the following hypothesis is also supported by the literature (see Stapel & Koomen, 2001, for a review).

H2a: A treatment prime that exemplifies a concept of extreme maternal mental illness will make a stronger contribution to pregnant women’s perceived overall well-being of the target character compared to a non-extreme prime.

Exemplification literature (Zillmann & Brosius, 2000), and its findings that exemplars lead to misperception of risk, provides support for the third hypotheses.

H3: A treatment prime that exemplifies a concept of extreme maternal mental illness will make a stronger contribution to a pregnant women’s perception of risk of suffering from all three postpartum disorders — the “baby blues,” postpartum depression, and postpartum psychosis — compared to a non-extreme prime.

Automaticity scholars, with their findings that implicit goals can provide powerful influence on attitudes and behaviors, provided inspiration for the following research questions.

RQ1: What is the relationship between the activation of a concept of extreme maternal mental illness and pregnant women’s perceived likelihood of developing postpartum disorders if that prime is further mediated by a woman’s goal to be healthy?

RQ2: What is the relationship between the activation of a concept of extreme maternal mental illness and pregnant women’s perceived likelihood of feeling empowered to talk to her doctor about her depressive symptoms if that prime is further mediated by a woman’s goal to be healthy?

RQ3: What is the relationship between the activation of a concept of extreme maternal mental illness and pregnant women’s perceived likelihood of avoiding medication if that prime is further mediated by a woman’s goal to be healthy?

CHAPTER VII

METHOD

Overview

In an experimental design testing effects of a priming event (extreme prime, non-extreme prime) on judgments and behavioral intentions, pregnant women participated in a research session that included a pretest questionnaire and evaluation of a website about postpartum disorders that exposed all participants to the two exemplars for the first time. Upon meeting with the researcher, participants were exposed subliminally to one or the other exemplar and asked to judge a target character in a video clip. Following this, participants viewed a persuasive health communication video and answered questions about their behavioral intentions. Finally, the presence or absence of activated goals was assessed implicitly through a word-stem completion task.

Participants first completed a preliminary questionnaire delivered via an e-mail link to the Qualtrics survey website. This questionnaire included individual difference measures for measuring empathy and sympathy (Tamborini & Mettler, 1990), Health Locus of Control (Walston et al., 1976), Need for Cognition (Cacioppo, Petty, & Kao, 1984), Need for Orientation (Matthes, 2005), and depression (CES-D Scale, Radloff, 1977) as well as preliminary measures for risk perception and behavioral intentions. These served as control measures. The independent variable was manipulated according to the subliminal prime's *exemplification* or representation of the maternal mental illness concept. The subliminal prime was delivered in the form of 16 millisecond exposures of images of each exemplar via

a laptop computer with DirectRT software. The subsequent video clips featuring the target character and full-length persuasive health communication video were also presented via a laptop computer. The participants were randomly assigned to one of the two conditions in an alternating fashion. Attitudes toward a subsequent target character, perceptions of their own risk to succumbing to a postpartum disorder, as well as behavioral intentions served as the dependent variables.

Participants

Participants in the study were comprised of pregnant women ($N = 40$) recruited from obstetrician offices in the Daytona Beach, Florida area. The Daytona Beach area is home to more than 64,000 people. The median age is 38 years, the median income is \$29,312. More than 80% of Daytona Beach residents are high school graduates, nearly 8% have some college education, 13.1% hold a bachelor's degree, and 6.3% hold a graduate degree. Families with children make up 8% of the population. More than 43% of those living in Daytona Beach are married, and more than 56% are single. (Yahoo! Real Estate). Recruiting pregnant women was deemed appropriate due to their likely high level of involvement with the issue of postpartum disorders as compared to college students who were used as participants in a previous, related study (Holman & Dillman Carpentier, 2009). Participants received \$50, \$75, or \$100 (depending on the wave of recruitment) for volunteering an hour of their time to take part in this study. There was no attempt to obtain a range of ages or ethnicities for this first-time study.

Most of the participants (77.5%, $n = 31$) were Caucasian, 17.5% ($n = 7$) were African American, and 5% ($n = 2$) listed their race as other. Two participants did not answer this question. Three participants (7.5%) also indicated that they were Hispanic or Latino. Ages of

the participants ranged from 18 to 36. The average age was 27. Nearly half of the participants (57.5%, $n = 23$) were carrying their first child. On average, the participants were 26 weeks pregnant, but ranged from 10 weeks to nearly full term at 38 weeks.

Most of the participants were married (77.5%, $n = 31$), 12.5% ($n = 5$) were in a relationship, and 10% ($n = 4$) indicated that they were single. A small percentage, 5% ($n = 2$) of the participants reported an annual household income of \$100,000 or above. Most of the participants (30%, $n = 12$) indicated that they had an income of \$50,000 – \$99,999; 12.5% ($n = 5$) reported \$40,000 – \$49,000; 10% ($n = 4$) indicated that their household income was \$30,000 – \$39,000; 7.5% ($n = 3$) reported their income in the \$20,000 – \$29,999 range; 7.5% ($n = 3$) recorded an income of \$10,000 – \$19,999; and 12.5% ($n = 5$) stated that their household income was \$9,999 or below. 15% ($n = 6$) of the participants opted out of the question. Most (40%, $n = 16$) of the participants reported either 3 or 4 individuals in their households (20%, $n = 8$, respectively). Many (37.5%, $n = 15$) said that there were 2 individuals in their households. 10% ($n = 4$) of the participants reported a household of one, while another 10% ($n = 4$) reported 5 individuals in their households. One (2.5%) participant reported 7 individuals in her household. Most of the participants (40%, $n = 16$) had a bachelor's degree. 7.5% ($n = 3$) reported that they had a graduate or professional degree. 17.5% ($n = 7$) of the participants indicated that they had some college education, but no degree. 10% ($n = 4$) were high school graduates. 5% ($n = 2$) had some high school, but no diploma, while one (2.5%) participant indicated she had only a middle-school education. Seven participants refused to answer the question.

About a third, (35%, $n = 14$) of the participants indicated that they knew someone who had experienced postpartum depression and 86% ($n = 12$) of those women indicated that their acquaintance had shared her experience with them.

Experiment Procedure

All participants were asked to sign an informed consent form before taking part in the study. Prior to their participation in the experiment, all participants filled out a pretest questionnaire featuring individual difference scales (see Appendix A). They were also asked a series of behavioral intention questions that are meant to provide a baseline to assess the persuasive effect of the health communication video.

The only inclusion/exclusion criterion for this study was that women who expressed interest in participating in the study were screened with two depression scales. First, the prospective participant answered the questions to the two-item PRIME-MD PHQ scale (see Appendix A). If a prospective participant answered “yes” to either question, this indicated that she may be suffering from a depressive disorder. In addition, an Edinburgh Postnatal Depression Scale (EPDS) (Cox, Holden, & Sagovsky, 1987, see Appendix A), a 10-item depression scale was included in this study’s pre-measures. If a participant answered “yes” to both questions in the PRIME-MD PHQ scale or scored a 11 or above (out of 30) on the EPDS scale, she was also be excluded from the study and her OB/GYN was notified of her status (if she signed the waiver permitting the principal investigator to do so).

Included participants were then be asked to peruse a faux website about maternal depressive disorders (<http://multigraphy.org/stimulus/postpartumnet/postpartumnet.asp>) that featured slideshows about Andrea Yates, who suffered from postpartum psychosis, and Heather Harrison, who suffered from postpartum depression. In order to control for

presentation and order effects, participants were randomly assigned to either a version with the Andrea Yates story on the left side of the Web page or a version with that story on the right side. It was assumed that the participant viewed the website and answered pre-test questions in the privacy of their own home.

Following this, each participant met with the researcher at an appointed time. A registered nurse took the participant's baseline blood pressure reading and was present during the entire experiment to assess the participant for stress and to answer any medical questions. All participants took part in a "vigilance task" where they were exposed to either subliminal prime. First the participants practiced with 10 trials of exposure to neutral prime words: *building, coffee, chalkboard, alarm clock* (Chartrand & Bargh, 1996). Following this, half ($N = 20$) of the participants were assigned to the extreme prime condition and were exposed to a subliminal prime with images of Andrea Yates drawn from the news media. Following the procedure described by Chartrand & Bargh (1996), each stimulus image was flashed in one of four quadrants on the computer screen positioned in the parafoveal region (see Bargh & Chartrand, 2000, p. 260) for 75 trials of 16 milliseconds each followed by a gray mask where the image had appeared. This mask prevents an extension of the intended prime exposure that can persist in a participant's visual iconic memory store (Bargh & Chartrand, 2000, p. 262). Participants were led to believe that this part of the experiment was a separate vigilance task that would record how quickly they notice and respond to the stimuli. They were asked to push the *F* and *J* computer key indicating the left and right side of the central fixation point. The participants were told to focus on centrally positioned asterisks (***) throughout the session, preventing them from fixating on the parafoveal stimuli.

The other half ($N = 20$) of the participants served as the non-extreme prime group and were exposed to the corresponding images of Heather Harrison gleaned from the website slideshow to which the participants were previously exposed. Another blood pressure reading was taken after the priming manipulation. Each participant was then asked to view and evaluate a video clip featuring a woman who has suffered from postpartum depression. After they answered the posttest questionnaire evaluating the target character in the video clip, the participants viewed the full-length health communication video. They were led to believe that the woman in the video clip was being tested for inclusion in the health communication video that was going to be utilized by doctors for their OB patients (see Holman & Dillman Carpentier, 2009 for use of a similar procedure). After viewing the full video, the participants were asked to complete a posttest questionnaire that gathered demographic data and assessed behavioral intentions, including possible avoidance behavior (Luce 1998, Luce, Bettman & Payne, 2001, 2005; Luce & Kahn, 1999). Finally, participants were debriefed using a “funneled debriefing” technique to probe for any inklings of knowledge of the prime manipulation (Chartrand & Bargh, 1996).

Study Administration and Ethical Issues

A prior history of mental illness was not assessed for this study. The researcher did not have access to patient records. In addition, participants were not excluded based on the stage of their pregnancy.

Some participants may have become emotionally involved with the online slideshows and health communication video as the subject matter may be particularly important to them. The researcher both verbally debriefed them and provided a written debriefing form for the participants. A registered nurse was present during the participants’ sessions with the

researcher. In addition to monitoring the participants' blood pressure for physical signs of stress, debriefing questions assessed their emotional well-being. These were assessed on a daily basis by the registered nurse who was involved in this study. If a prospective or involved participant required mental health intervention, she was put in touch with Dr. James Moore, a clinical psychiatrist with Halifax Health Behavioral Services. If an individual required acute mental health intervention, she was referred to the emergency room at Halifax Health Medical Center in Daytona Beach. Halifax Health Medical Center has a mental health intervention program in place in its emergency room, so evaluations for acute cases are available 24-hours a day, seven days a week. The Halifax Health Medical Center emergency room has three (3) mental health screening rooms where Registered Nurses assess the needs of incoming patients and determine the appropriate course of action. None of the prospective or involved participants needed these services.

Protocol for Responding to Depression Prescreen Measures. Participants were prescreened for depressive symptoms twice. First they filled out a PRIME-MD PHQ two-item questionnaire: During the last 2 weeks, have you been bothered by any of the following problems? Have you often been bothered by feeling down, depressed, or hopeless? Have you often been bothered by little interest or pleasure in doing things? If they answered “no” to both of these questions (and signed the study consent form), they were then able to begin the first part of the study. It is during that part that they completed the 10-item EPDS questionnaire (see Appendix A). If the participant scored a 11 or lower on the EPDS questionnaire, she was allowed to continue to participate in the study.

If the participant answered “yes” to both of the PRIME-MD PHQ questions they were released from the study and received a telephone call from the registered nurse. They were

also released from the study if they passed the PRIME-MD PHQ prescreen, but scored an 11 or higher on the EPDS questionnaire. Upon reaching the participant on the telephone, first the nurse identified herself to the woman as a Registered Nurse associated with the study.

The nurse reminded the woman that she filled out a PRIME-MD PHQ two-item questionnaire (or Edinburgh Postnatal Depression Scale (EPDS)) as part of her recruitment into the study. The nurse informed her that this questionnaire is designed to prescreen individuals for depressive symptoms and that she may have been suffering from these symptoms. The nurse was very careful NOT to make a diagnosis over the telephone. If she had signed the waiver for her doctor, the nurse informed her that her doctor's office had been contacted he had been informed of the results, and that she should make an appointment with the doctor to further discuss her symptoms. If she hadn't signed the waiver, the nurse requested verbal permission to contact the doctor. The nurse gently asked her in what ways she was feeling down, depressed or hopeless. The nurse asked her how she was being bothered by little interest or pleasure in doing things. If she expressed any suicidal ideations the nurse acted on it immediately. The nurse made a point of asking her directly if she is having suicidal thoughts / ideas.

e.g. "Are you thinking about killing yourself?"
"Have you ever tried to hurt yourself before?"
"Do you think you might try to hurt yourself today?"
"Have you thought of ways that you might hurt yourself?"
"Do you have pills/weapons in the house?"

These questions do not increase a person's suicidal thoughts if she was having them. It gave the nurse information that indicated how strongly the woman has thought about killing herself, especially if she indicated that she has attempted suicide in the past.

If the situation had warranted it, the nurse would have acted under the guidance of the Baker Law that allows medical professionals to have individuals who may be a danger to themselves to be held for observation for 72 hours. This was not necessary for the prospective participants in this study.

If the woman did endorse depressive symptoms, but the situation did not warrant calling the police and having her taken to a psychiatric facility, the nurse contacted Dr. Moore for his immediate intervention and contacted the woman's obstetrician to follow through with a scheduled appointment. It was likely that more subjects would fall in a gray area of not needing to be hospitalized, but not scoring low on the depression scale. For the three ranges of possibilities in a participant's responses to the EPDS, the following is a more detailed of this study's at-risk protocol:

Low on the EPDS. If the participant scored a 10 or below, she was allowed to continue to participate in the study. During the debriefing, the nurse informed her that her score indicated that she may be experiencing mild depressive symptoms (if she had a score of 9 or 10) and encouraged her (as well as all participants) to speak to her doctor about how she is feeling and encouraged her to ask for a referral for counseling.

"Gray" area on the EPDS. If the participant scored an 11 to 13 on the EPDS and only a follow-up discussion with her doctor was warranted, the nurse urged her to make an appointment with her obstetrician. She also encouraged her to contact Dr. Moore, who would have assisted her in arranging to see a mental health professional through Halifax Health. She was informed that she was released from the study and then was sent a follow-up e-mail.

High on the EPDS. If the participant scored higher than 13 points or indicated any suicidal ideation — that is she scored a 1 or higher on question #10 of the EPDS Scale — she

would have been referred immediately for a follow-up. The nurse would have contacted Dr. Moore for his immediate intervention as well as the woman's obstetrician. If the nurse determined that the woman may have been a danger to herself, she would have contacted the police and have had the woman hospitalized. Fortunately, none of the prospective participants fell into this category.

Stimulus Material

Subliminal primes have been successfully used in social cognitive psychology to activate implicit attitudes (Fazio, Sanbonmatsu, Powell, & Kardes, 1986; Ferguson, Bargh, & Nayak, 2005), emotions (Winkielman & Berridge, 2004; Zemack-Rugar, Bettman, and Fitzsimons, 2007), goals (Chartrand et al., 2008), and behaviors (Bargh, Chen, & Burrows, 1996). Bargh and Chartrand (2000) note that it behooves researchers to follow a supraliminal priming experiment (see Holman & Dillman Carpentier, 2009) with a subliminal one that tests the same hypotheses. Therefore, the extreme treatment prime stimulus for this study incorporated media images of Andrea Yates. The non-extreme priming stimulus incorporated images of Heather Harrison, who suffered from the more common disorder of postpartum depression and better exemplified the base-rate data of postpartum disorders.

All participants were first exposed to the same website (See Appendix A for a screenshot) that included two slideshow stories that were produced using Soundslides, a popular Web application that is utilized by many online news outlets. Filler stories included an update on the national health care reform law that went into effect in early 2010, a general information piece that described the symptoms and the statistical likelihood of the three postpartum disorders: "baby blues," postpartum depression, and postpartum psychosis, and a piece on how maternal depression is linked to sleep disturbance in infants.

The postpartum depression video was 1 minute and 37 seconds long and not only included a 13 second clip of the target character who described her experience with postpartum depression, it also included a message to persuade pregnant women to talk to their doctor if they are experiencing depressive symptoms (See Appendix A). The message included two strong arguments. One being that postpartum psychosis is rare when compared to postpartum depression and the milder “baby blues.” An expert, an OB/GYN, who points out that the children of depressed mothers can experience developmental delays, made that second strong argument.

Primary Independent Variable

Exemplar extremity. The focus of this study was on determining how the extremity of an exemplar of maternal mental illness influenced participants’ view of a target character that represented the base-rate or more normal distribution of maternal depressive disorders. The Andrea Yates prime represented the extreme exemplar of maternal mental illness, while the Heather Harrison prime represented the non-extreme exemplar. The exemplar prime was coded 0 for the non-extreme prime and 1 for the extreme prime.

Primary Dependent Variables

Perceived hostility, perceived depression, and perceived overall well-being of the target character. Like in the previous supraliminal study conducted by Holman & Dillman Carpentier (2009), participants were asked about their perception of hostile traits attributed to the target character featured in a health education video about postpartum depression. This study included a two-item index for Perceived Hostility of Samantha (“I think Samantha is selfish,” “I think Samantha is a drama queen”). They were also asked about their perceptions

of “Samantha” in terms of depression (“I think Samantha is depressed,” and “I think Samantha is overwhelmed”). In addition, other personality measures have been derived from Hofstee, de Raad, & Goldberg, (1992) to create a Perceived Overall Well-being Scale, including a ten-item index for stability (“I think Samantha seldom gets mad”); a ten-item index for happiness (“I think Samantha seldom feels blue); a ten-item index for calmness (“I think Samantha rarely gets irritated”). The means and standard deviations for all continuous variables are presented in Table 1.

Unlike in Holman & Dillman Carpentier’s (2009) study, the hostility statements in this study did not correlate ($r = -.036, p = .413$) and were analyzed separately. The depression statements did correlate ($r = .529; p < .001$) and were combined to create a two-item depressive traits scale.

All 30 items data of the Perceived Overall Well-being Scale were screened and there were no missing values on any items. Means and standard deviations are reported in Table 1. There were no violations in terms of normality. Skewness did not exceed + or – 2. Kurtosis did not exceed + or – 7. All 30 items were entered in a linear regression to obtain Mahalanobis distance and were screened for outliers. Cases fell between a minimum of 6.089 and maximum of 37.760. Mahalanobis distance did not exceed the critical value of $X^2_{(.001, 30)} = 59.70306426$, so none of the cases had to be deleted.

As this scale was derived from the Abridged Big Five-dimensional Circumplex model (Hofstee, de Raad, & Goldberg, 1992), it was assumed that the factors were related to each other. A Principal Axis analysis of the 30 measures in the Perceived Overall Well-being Scale ($KMO = .576$) revealed there were 7 factors of eigen values more than 1 (see Table 3). They explain 81% of the variance. However, Cattell’s (1966) criterion for the scree plot

suggests there are three factors. The 30 measures were then factor analyzed on a fixed number of three factors using Principal Axis Factoring with Direct Oblimin rotation. The results indicate that 14 statements loaded on one factor, 11 statements loaded onto a second factor, and the remaining five statements loaded onto a third factor. Total variance was explained as follows: Factor 1 = 9.092; Factor 2 = 9.231; Factor 3 = 4.263. The first factor indicated an emotional control dimension, or emotions derived from a positive or negative control situation. The 14 items were averaged to create an emotional control scale ($\alpha = .904$). The second factor suggested a dimension where emotions are related to cognition. The 11 items were averaged to create an “emotion related to cognition” scale ($\alpha = .940$). Finally, the third factor suggested an emotional reactance dimension where extreme reactions to threats are fostered. The five items were averaged to create an emotional reactance scale ($\alpha = .822$) (see Table 4).

In addition to these scales, the original subscales (with 10 measures each for calmness, happiness, and stability) and the 30-item overall well-being scale were tested for sample adequacy and reliability (stability, $KMO = .736$ $\alpha = .839$; happiness, $KMO = .759$, $\alpha = .824$; calmness, $KMO = .811$, $\alpha = .917$). All 30 measures of the “wellness” traits also proved to be reliable ($\alpha = .944$). The 30 measures were averaged to create an index that is called the well-being scale. However, all seven “wellness” scales were further tested as dependent variables using regression analyses. The three new factors could simply be reflecting a sample idiosyncrasy, but also could be pointing out important differences in how pregnant women react to the target character in comparison to how college students react — and how the original scales, which have long been tested on college students, have captured those judgments in this sample. The target character may have become an extension of

themselves — unlike it would with college students — and the three new subscales may be better at parsing out effects for this phenomenon.

Exemplification effect. In order to assess the exemplification effect, or the disproportionate assessment of personal risk, participants were asked to rank their perceived vulnerability of suffering from “baby blues,” postpartum depression, and postpartum psychosis (How vulnerable do you feel to possibly experiencing postpartum “blues” / depression / psychosis after giving birth to your baby?) as well as their perception of risk (How likely do you think you will experience postpartum “blues” / depression / psychosis after giving birth to your baby?) Prior to the experiment, all participants answered these six questions to determine their perceptions of risk in terms of succumbing to one of the three postpartum disorders. They were asked these questions again in the posttest. As these were newly created scales, each of the two 6-item scales was subjected to a factor analysis using Principal Components factoring to see if the six statements loaded onto one factor. In the case of the six pretest measures, they loaded onto one factor that explained 85.996% of the variance ($KMO = .694$, $\alpha = .905$, Table 5). The six posttest measures were similarly analyzed and loaded onto two factors that explained 75.930% of the variance ($KMO = .709$, $\alpha = .845$, see Table 6). The statements that loaded on both factors in the pre- and posttest scales were: “I feel vulnerable to possibly experiencing ‘baby blues’ after giving birth,” “I think it’s likely that I will experience postpartum depression after giving birth.” However, due to their high reliability as complete scales, these measures were averaged to create two scales, a pre-exemplification effect scale and a post-exemplification effect scale.

Priming. Participants were also asked to rate the target character, “Samantha.” using a Perceived Sanity Scale that consists of the following evaluative descriptors: Competent,

loving, sane, careful, honest, trustworthy, responsible, reliable, safe, nurturing, hopeful, stable, friendly, expressive (Tamborini & Mettler, 1990). All items were assessed on a 9-point Likert-type scale (“1” means the adjective describes the target character very poorly, while “9” means the adjective describes the target character very well). The measures were factor analyzed using Principal Components factoring and found that the 14 statements loaded onto four factors ($KMO = .624$; $\alpha = .836$, see Table 7). However, because of the reliability of the scale, it was kept intact for further analysis. The perceived sanity of the target character indicated the direct addition of the prime and was entered into regression analyses to test for interactions with the prime condition and primed goals.

Behavioral intentions. Participants were also given a series of 9 behavioral intention questions in order to assess, among other things, their likelihood of feeling empowered to speak to their doctor if they were experiencing depressive symptoms, their likelihood of postponing speaking to their doctor if they thought they were experiencing symptoms, or their belief that their doctor would recommend medication to treat their depressive symptoms. These questions were asked in the pretest as well to provide comparison and the 9 pre- and posttest items were subjected to exploratory factor analyses. These questions were created for this study and have not been tested as a scale prior to this investigation, so it was appropriate to assume that the factors were unrelated. Therefore, a Principal Components analysis of the 9 intended behavioral pretest measures ($KMO = .562$, $\alpha = .211$) revealed there were 4 factors of eigen values more than 1. They explain 74% of the variance. The same measures were administered posttest to gauge the effects of the health communication video. These posttest measures were factor analyzed using Principal Components factoring and found that the 9 statements loaded onto four factors ($KMO = .606$, $\alpha = .497$). The low

reliability of the overall scale and subsequent analyses of possible subscales resulted in exploring correlations between statements. Two correlations were significant: The pretest, $r = .565, p < .01$, and posttest measures, $r = .519, p < .01$, matching the statements that assessed how likely the participant would discuss their depressive symptoms with a parent and/or a partner. The final analyses were done using the two 2-item measures (communication scale) and other pretest and posttest statements as individual dependent variables.

Assessing the possible mediation of activated goals. All participants were asked to complete a series of word-stems in order to assess the activation of the implicit goals to be healthy and/or to be a good mother. Ten of the words were related to the healthy goal and ten were related to the good mother goal. If these goals were present, they were dummy coded (0 = not present; 1 = goal present) to assess their possible mediation in the effect of the persuasive message on behavioral intentions.

Assessing posttest involvement. Personal involvement with the issue of postpartum depression was measured with five items after the participants had viewed the health communication video. All statements were measured on a Likert-type scale where “1” meant “strongly disagree” and “9” meant “strongly agree.” The first statement assessed their familiarity with the content of the health communication video. The second measured their interest in topics related to the health of new mothers. The third rated their level of concern about postpartum depression. The fourth measure assessed how important the issue of postpartum depression is to them. Finally, the participants were asked to rate the perceived direct effect on themselves that postpartum depression will likely have. These measures were factor analyzed using Principal Components factoring and found that the five statements

loaded onto two factors that explained 68% of the variance ($KMO = .685$, $\alpha = .588$). The low reliability of the overall scale and subsequent analysis of possible subscales resulted in the creation of a 3-item scale that loaded on the first factor that consisted of items that named postpartum specifically in their assessment of a particular involvement dimension. The other two items that first assessed participants' familiarity with the content of the health communication video, and second, measured their interest in topics related to the health of new mothers, did not address postpartum depression specifically. They also did not correlate as a scale in and of themselves ($r = .071$, $p = .662$) and were therefore dropped from the final posttest involvement scale. The final 3-item scale proved reliable ($KMO = .693$, $\alpha = .799$).

The overall well-being scales, the two-item depression scale, risk perception measures, measures of hostile traits, and posttest involvement were normally distributed (see Table 1). Correlations between the independent and dependent variables are shown in Table 2. The full measurement instrument appears in Appendix A.

Manipulation Checks and Control Variables

Control variables. Individual differences were taken into account, including measures for sympathy, empathy, need for cognition, need for orientation, health locus of control, depression, and impressions of the health communication video. All continuous control variables were normally distributed (see Table 1 for descriptives).

Manipulation checks. In order to ensure completion of the pretest measures and viewing the faux website prior to the prime manipulation, the participants were given a unique identifying number to code in when they logged on to the Qualtrics questionnaire site. In addition, the Qualtrics survey site collected the participant's unique IP address. The faux website pages and two slideshow stories were also tagged using ASP programming code that

generated a “hit” file for each. These “hit” files also collected the IP addresses and recorded the timestamps of the participants once they viewed the online material. These IP addresses were matched and the codes were kept separate from the participants’ identifying information. In the final stage of the experiment, participants were probed for an inkling of what was presented to them during the prime manipulation. In a funneled debriefing, they were asked whether they recognized the images and to please describe them if they could.

Analysis Used in the Results Section

Hypotheses and research questions. After all preliminary analyses, the data were analyzed to test the five hypotheses and the three research questions. To test for priming effects, t -tests and hierarchical regression analyses were performed to answer Hypotheses 1 and 1a, whether individuals in the extreme prime condition will make a stronger contribution to their perceptions of hostile trait characteristics of the target character or, conversely, whether those individuals will lower their perceptions of hostile trait characteristics of the target character. T -tests and hierarchical regression analyses also helped to answer Hypotheses 2 and 2a, whether individuals in the extreme prime condition will lessen, or conversely, strengthen their perceptions of the target character’s overall well-being.

Hierarchical regression analyses also helped to address Hypothesis 3. However, in order to test for changes in exemplification effects, a one-way ANOVA and t -tests were utilized to determine if, according to Hypothesis 3, an extreme exemplar of maternal mental illness will make a stronger contribution to a pregnant participant’s perception of risk of suffering from all three disorders — the “baby blues,” postpartum depression, and postpartum psychosis — compared to a non-extreme prime. This was done by comparing the

extreme and non-extreme prime conditions in terms of pretest measures of risk perceptions of developing postpartum disorders, as well as in terms of posttest measures of risk perceptions.

In order to test for a mediation effect and address the three research questions, the healthy goal measure, the posttest exemplification effect measure, each of two of the behavioral intention measures (“I would feel empowered to talk to my doctor if I were to experience depressive symptoms after the birth of my baby,” and “If I were experiencing depressive symptoms after the birth of my baby, I would postpone telling my doctor so I could avoid medication”), and the prime condition were entered into regression analyses as the independent and dependent variables in an alternating fashion. The three research questions were poised to determine the influence of the prime condition on subsequent behavioral intentions if the participant’s prime condition was further mediated by the woman’s goal to be healthy. Research Question 1 sought to determine the relationship between the activation of a concept of extreme maternal mental illness and pregnant women’s perceived likelihood of developing postpartum disorders. Research Question 2 sought to determine the relationship between the activation of a concept of extreme maternal mental illness and pregnant women’s perceived likelihood of feeling empowered to talk to her doctor about her depressive symptoms. Research Question 3 sought to determine the relationship between the activation of a concept of extreme maternal mental illness and pregnant women’s likelihood of avoiding medication.

CHAPTER VIII

RESULTS

Priming

As a manipulation check to ensure that those who were exposed to the extreme prime were, in fact, primed by the extreme mental illness concept, eleven regression analyses tested the effects of exemplification and prime addition of the maternal mental illness concept on overall evaluations of the target character as well as posttest perceptions of their own risk. Individual difference pretest measures (education category (1 = low: Up to some high school, but no diploma; 2 = medium: High school diploma to some college; 3 = high: College, graduate or professional degree), income category (1 = low: \$19,999 and below; 2 = medium: \$20,000 – \$39,999; 3 = high: \$40,000 and above), age category (low = 18-22; medium = 23-31; high = 32-36), race (white = 1, other = 0), sympathy, empathy, need for cognition, need for orientation, health locus of control, and depression) were entered in the first block. The exemplification condition and prime addition (measure of the mental illness concept: Sanity) were entered in the second block to test for main effects. The interaction between exemplification condition and measure of sanity was entered in the third block. A significant interaction would confirm a priming effect, provided that the measure of the target character's sanity was a stronger predictor among those in the extreme exemplification condition, rather than those in the non-extreme exemplification condition.

For initial hypotheses testing, the independent variables of exemplification condition and prime addition (sanity) and all of the control variables (race, age, income, education,

sympathy, empathy, need for cognition, need for orientation, health locus of control, and depression) were entered into the regression models. All of the continuous independent variables were centered for analysis (Aiken & West, 1991). All continuous variables were normally distributed and *t*-tests confirmed the assumed equal variances between the exemplar conditions in showing that there were no differences due to presentation order (whether participants viewed the pretest Web page with the Andrea Yates story on the left or the right).

Priming perceptions of hostile traits. Comparison of means illustrate that those participants in the extreme condition judged the target character more harshly than did those in the non-extreme condition. In judging whether “Samantha is selfish,” participants in the extreme condition were more likely to agree ($M = 4.50, SD = 1.14$), than those in the non-extreme condition ($M = 3.95, SD = 1.73$). In judging whether “Samantha is a drama queen,” participants in the extreme condition were more likely to agree ($M = 4.65, SD = .98$), than those in the non-extreme condition ($M = 3.90, SD = 1.29$). In terms of the “drama queen” trait, a *t*-test confirmed that those in the extreme exemplification condition did evaluate the target character significantly more harshly, $t(38) = -2.060, p = .046$, than those in the non-extreme condition.

Hierarchical multiple linear regression analyses were performed to evaluate how well the key variables predicted the overall evaluations of the target character in terms of perceived hostile traits. Individual difference pretest measures of sympathy, empathy, need for cognition, need for orientation, health locus of control, depression, as well as demographic data, were entered in the first block. The exemplification condition and prime addition (sanity) were entered in the second block to test for main effects. The interaction

between condition and sanity was entered in the third block. The final model for the first hostility measure (“Samantha is selfish”; $M = 4.23$, $SD = 1.48$) was significant, $R^2 = .386$, $F(13, 20) = 2.597$, $p = .027$, (see Table 8) with measures of need for cognition, $\beta = -.499$, $t(33) = -2.855$, $p = .010$, and participant depression, $\beta = -.519$, $t(33) = -2.904$, $p = .009$, offering significant predictive contributions to the final model. However, there was no significant interaction between the condition and prime addition (see Figure 1).

The most parsimonious model for the second hostility measure (“Samantha is a drama queen”; $M = 4.27$, $SD = 1.20$) was significant in predicting the negative evaluation of the target character, $R^2 = .302$, $F(12, 21) = 2.387$, $p = .039$ (see Table 9). There was a main effect for the prime addition (sanity), $\beta = -.733$, $t(33) = -3.427$, $p = .003$ predicting that as participants’ perceptions of the target character’s sanity lowered, their negative evaluation of her increased. Participant age, $\beta = .596$, $t(33) = 2.355$, $p = .028$, also made a significant contribution in predicting the evaluation of the target character. While the full model failed to produce a significant interaction (see Figure 2), again, a t -test confirmed that those in the extreme condition did judge the target more harshly, $t(38) = -2.060$, $p = .046$, than those in the non-extreme condition. Also, the older participants judged the target character more harshly than younger participants (see Figure 3). These findings would suggest support for Hypothesis 1, or that the extreme exemplar of maternal mental illness would contribute to individuals’ negative evaluations of the target character. This is tentative support, in that it cannot be established that the exemplar condition alone primed the mental illness concept, which, in turn, contributed to the judgment effect.

Priming perceptions of depressive traits. Comparison of means of the two-item measure assessing the perceived depressive traits of the target character illustrate that those

participants in the extreme condition again judged the target character more harshly than did those in the non-extreme condition. In judging whether “Samantha is depressed” and “overwhelmed,” participants in the extreme condition were more likely to agree ($M = 6.98$, $SD = 1.25$), than those in the non-extreme condition ($M = 6.55$, $SD = 1.62$) — a t -test did not indicate that this difference was significant, $t(38) = -.928$, $p = .359$.

Hierarchical multiple linear regression analyses were performed to evaluate how well the key variables predicted the overall evaluations of the target character in terms of depressive traits. Individual difference pretest measures (race, age, income, education, sympathy, empathy, need for cognition, need for orientation, health locus of control, and depression) were entered in the first block. The exemplification condition and prime addition (measure of the mental illness concept: Sanity) were entered in the second block to test for main effects. The interaction between exemplification condition and measure of sanity was entered in the third block. The final model failed to produce significant effects in terms of the 2-item depressive traits measure (“Samantha is depressed,” “Samantha is overwhelmed”), $R^2 = .036$, $F(13, 20) = 1.094$, $p = .416$.

In order to test for interactions with activated goals of being “healthy” and a “good mother” and how these interactions affect the evaluation of the target character’s depressive traits, these terms were entered into a hierarchical multiple linear regression analysis. In order to avoid a saturated model, fewer individual difference pretest measures (sympathy, empathy, need for cognition, need for orientation, health locus of control, depression, and age) were entered in the first block. The exemplar condition, prime addition (Sanity), healthy goal, and “good mother” goal were all entered in the second block to test for main effects. The 2-way interactions between the four terms were entered in the third block. The 3-way

interactions among the four terms were entered in the fourth block, and the 4-way interaction was entered in the fifth block.

The most parsimonious model for the 2-item depressive traits measure ($M = 6.76$, $SD = 1.45$) was significant in predicting the negative evaluation of the target character, $R^2 = .510$, $F(17, 22) = 3.383$, $p = .004$ (see Table 10). There was a main effect for the prime addition (sanity), $\beta = -1.769$, $t(39) = -3.569$, $p = .002$, predicting that as participants' perceptions of the target character's sanity lowered their evaluation of her depressive traits increased. The presence of a healthy goal in participants also predicted the evaluation of the target character's depressive traits, $\beta = -4.260$, $t(39) = -2.435$, $p = .023$. The interaction between the prime addition (sanity) and presence of a healthy goal was also significant, $\beta = 4.232$, $t(39) = 2.558$, $p = .018$, suggesting that the activation of the mental illness concept interacted with the participant's own health goals to produce a judgment effect (see Figure 4).

After splitting the file according to condition, further regression analyses revealed significant results in the extreme exemplar condition. Individual difference pretest measures (sympathy, empathy, need for cognition, need for orientation, health locus of control, and depression) were entered in the first block. The prime addition (sanity), healthy goal, and "good mother" goal were all entered in the second block to test for main effects. The 2-way interactions between the three terms were entered in the third block. The 3-way interaction among the three terms was entered in the fourth block. The final model for the non-extreme condition approached significance, $R^2 = .583$, $F(12, 7) = 3.217$, $p = .065$. The final model for the extreme exemplar condition was significant, $R^2 = .681$, $F(13, 6) = 4.120$, $p = .046$, with significant coefficients for the need for cognition, $\beta = -.829$, $t(19) = -4.505$, $p = .004$, need for orientation, $\beta = .638$, $t(19) = 2.849$, $p = .029$, prime addition (sanity), $\beta = -3.864$, $t(19) = -4.630$,

$p = .004$, presence of the healthy goal, $\beta = -8.743$, $t(19) = -3.715$, $p = .010$, and the prime addition and healthy goal interaction, $\beta = 10.613$, $t(19) = 3.830$, $p = .009$ (see Figure 5). The presence of the “good mother” goal approached significance, $\beta = -11.2110$, $t(19) = -2.343$, $p = .058$, as did the prime addition and good mother goal interaction, $\beta = 12.032$, $t(19) = 2.131$, $p = .077$.

Priming perceptions of well-being traits. While t -tests failed to produce significant differences in the wellness scales between the two exemplar conditions, comparison of means do indicate notable differences between the two experimental conditions. Participants in the non-extreme condition perceived the target character to command a greater sense of well-being than did those participants in the extreme condition on all well-being measures. For the overall 30-item well-being scale, the non-extreme group ($M = 4.67$, $SD = 1.07$) judged the target character less harshly than did the extreme group ($M = 4.56$, $SD = .715$). The same trends were found for the target character’s measure of stability (non-extreme: $M = 4.83$, $SD = .945$; extreme: $M = 4.63$, $SD = .686$), happiness (non-extreme: $M = 4.43$, $SD = 1.25$; extreme: $M = 4.39$, $SD = .812$), calmness (non-extreme: $M = 4.77$, $SD = 1.29$; extreme: $M = 4.65$, $SD = .778$), well-being traits related to control of situations (non-extreme: $M = 4.54$, $SD = 1.13$; extreme: $M = 4.44$, $SD = .611$), well-being traits related to cognitions (non-extreme: $M = 4.89$, $SD = 1.40$; extreme: $M = 4.70$, $SD = 1.02$), and well-being traits related to emotional reactance (non-extreme: $M = 4.59$, $SD = 1.42$; extreme: $M = 4.56$, $SD = .993$).

Hierarchical multiple linear regression analyses were performed to evaluate how well the key variables predicted the overall evaluations of the target character in terms of well-being traits. Individual difference pretest measures (race, age, education, sympathy, empathy, need for cognition, need for orientation, health locus of control, and depression) were entered

in the first block. Income was excluded because by not doing so, it would exclude six cases listwise. The exemplification condition and prime addition (sanity) were entered in the second block to test for main effects. The interaction between exemplification condition and measure of sanity was entered in the third block. In testing the effects of the extreme or non-extreme exemplar primes, regression analyses were performed on all seven scales of well-being traits — the three well-being scales derived from this study (see Table 4) as well as the original overall well-being scale and its subscales for calmness, happiness, and stability.

The final model for the 30-item well-being scale was significant, $R^2 = .270$, $F(12, 27) = 2.205$, $p = .043$ (see Table 11), and produced main effects for education level, $\beta = .629$, $t(39) = 2.984$, $p = .006$, race approached significance, $\beta = -.348$, $t(39) = -1.940$, $p = .063$, and the main effect for the prime addition (sanity) approached significance, $\beta = .437$, $t(39) = 1.931$, $p = .064$. The final model for the 10-item stability subscale was significant, $R^2 = .462$, $F(12, 27) = 3.789$, $p = .002$ (see Table 12), with main effects for education level, $\beta = .710$, $t(39) = 3.923$, $p = .001$, race, $\beta = -.334$, $t(39) = -2.164$, $p = .039$, and the prime addition, $\beta = .751$, $t(39) = 3.867$, $p = .001$. The main effect for condition approached significance, $\beta = 1.928$, $t(39) = 1.927$, $p = .065$; however, the interaction between condition and prime addition was significant, $\beta = -2.036$, $t(39) = -2.055$, $p = .050$ (see Figure 6). The final model for the 10-item happiness subscale was not significant. The final model for the 10-item calmness subscale was significant, $R^2 = .295$, $F(12, 27) = 2.357$, $p = .031$ (see Table 13), and produced main effects for education level, $\beta = .635$, $t(39) = 3.063$, $p = .005$, and the main effect for sympathy approached significance, $\beta = .371$, $t(39) = 1.946$, $p = .062$. The final model for the well-being traits related to control of situations was significant, $R^2 = .280$, $F(12, 27) = 2.263$, $p = .038$ (see Table 14), produced main effects for education level, $\beta = .632$, $t(39) = 3.019$, $p = .005$, race, $\beta = -.530$, $t(39) = -2.972$, $p =$

.006, and the prime addition (sanity), $\beta = .466$, $t(39) = 2.072$, $p = .048$. The final model for the scale for well-being traits related to cognitions approached significance, $R^2 = .226$, $F(12, 27) = 1.949$, $p = .073$, with a significant main effects for education, $\beta = .487$, $t(39) = 2.246$, $p = .033$, and the prime addition, $\beta = .541$, $t(39) = 2.325$, $p = .028$. The contributions of the exemplar condition, $\beta = 2.249$, $t(39) = 1.875$, $p = .072$, and the prime addition and exemplar condition interaction, $\beta = -2.275$, $t(39) = -1.916$, $p = .066$, both approached significance. The final model for the scale of well-being traits related to emotional reactance was not significant.

The findings for the well-being traits suggest that the prime manipulation is producing assimilation as well as contrast effects. The data are indicating that the extreme exemplar of maternal mental illness is capable of contributing both to individuals' negative and positive evaluations of the target character. In other words, once the target character's sanity was more seriously called into question, those in the extreme exemplar condition corrected their judgment and found her to be in a more positive state of well-being (see Figure 6).

In order to test for interactions with activated goals of being "healthy" and a "good mother" and how these interactions affect the evaluation of the target character's well-being traits, these terms were entered into a hierarchical multiple linear regression analysis. Individual difference measures (sympathy, empathy, need for cognition, need for orientation, health locus of control, depression, race, education, and age) were entered in the first block. The exemplar condition, prime addition (sanity), healthy goal, and "good mother" goal were all entered in the second block to test for main effects. The 2-way interactions between the four terms were entered in the third block. The 3-way interactions among the four terms were entered in the fourth block, and the 4-way interaction was entered in the fifth block. Significant final models predicting evaluation of the target character's well-being were found

for the 30-item well-being scale, the two 10-item scales assessing the target character's stability and calmness, as well as for the 14-item scale of well-being traits related to control situations. The final model for the 30-item well-being scale was significant, $R^2 = .457$, $F(23, 16) = 2.426$, $p = .036$ (see Table 15), with significant contributions in terms of sympathy, $\beta = .519$, $t(39) = 2.252$, $p = .039$, exemplar condition, $\beta = 12.884$, $t(39) = 3.221$, $p = .005$, prime addition, $\beta = 1.941$, $t(39) = 2.951$, $p = .009$, the condition and prime addition interaction, $\beta = -12.876$, $t(39) = -2.968$, $p = .009$ (see Figure 7), and the condition and health goal interaction, $\beta = -11.065$, $t(39) = -2.542$, $p = .022$ (see Figure 8). The main effect for the presence of a health goal approached significance, $\beta = 5.395$, $t(39) = 2.106$, $p = .051$.

The most parsimonious model predicting the outcome of participants' assessment of the target character's stability was significant, $R^2 = .371$, $F(19, 20) = 2.212$, $p = .043$ (see Table 16), with a significant coefficient in terms of education level, $\beta = .719$, $t(39) = 3.152$, $p = .005$. The exemplar condition, as a contributor to the final model, approached significance, $\beta = 2.551$, $t(39) = 2.005$, $p = .059$, as did the interaction between condition and prime addition, $\beta = -2.304$, $t(39) = -1.922$, $p = .069$.

The final model predicting the outcome of participants' evaluation of the target's calmness was significant, $R^2 = .572$, $F(23, 16) = 3.266$, $p = .009$ (see Table 17), with main effects for sympathy, $\beta = .531$, $t(39) = 2.597$, $p = .019$, participant depression level, $\beta = -.384$, $t(39) = -2.307$, $p = .035$, prime addition, $\beta = 1.654$, $t(39) = 2.832$, $p = .012$, and exemplar condition, $\beta = 13.014$, $t(39) = 3.665$, $p = .002$. There were significant interactions for the condition and prime addition, $\beta = -13.257$, $t(39) = -3.443$, $p = .003$ (see Figure 9), the condition and healthy goal, $\beta = -10.157$, $t(39) = -2.629$, $p = .018$ (see Figure 10), as well as a 3-way

interaction between the condition, prime addition, and healthy goal, $\beta = 10.249$, $t(39) = 2.435$, $p = .027$.

Finally, in a scale derived from this study, a 14-item scale assessed well-being traits related to control. The final model was significant, $R^2 = .548$, $F(23, 16) = 3.059$, $p = .012$ (see Table 18), with significant contributions in terms of prime addition, $\beta = 2.356$, $t(39) = 3.929$, $p = .001$, and healthy goal, $\beta = 6.498$, $t(39) = 2.782$, $p = .013$. The exemplar condition coefficient approached significance, $\beta = 7.350$, $t(39) = 2.015$, $p = .061$. The interaction between the healthy goal and prime addition was also significant, $\beta = -5.654$, $t(39) = -2.474$, $p = .025$ (see Figure 11).

Exemplification Effect

In order to test for the exemplification effect, or the increased (mis)perceptions of risk due to the primed exemplar condition (extreme vs. non-extreme), the data were recoded into pretest and posttest condition terms to reflect each primed exemplar group's pretest, or baseline score, and its posttest score. These data were entered into a one-way ANOVA and the data suggest significant differences between the groups, $F(3, 66) = 3.03$, $p < .05$, with post hoc tests confirming a significant difference between the extreme condition's pretest score and the non-extreme condition's posttest score (Tukey HSD = 1.599, Std. Error = .541, $p = .035$). The means for the pretest and posttest scores illustrate that both conditions increased their perceptions of risk of developing postpartum disorders (Non-extreme condition pretest: $M = 3.06$, $SD = 2.00$ and posttest: $M = 3.81$, $SD = 1.67$; Extreme condition pretest: $M = 2.22$, $SD = 1.40$ and posttest: $M = 2.77$, $SD = 1.17$). *T*-tests were performed to determine an exemplification effect for both the non-extreme and extreme exemplar conditions. First of all, comparing the pretest conditions did not yield significant results, thus confirming a similar baseline, $t(33) = 1.429$, $p = .162$. However, comparing the posttest

conditions between the two groups did yield significant results, $t(33) = 2.119, p = .042$ (see Figure 12), with the extreme condition group reporting significantly lower perceptions of risk when compared with the non-extreme condition. After splitting the data file into the two exemplar prime conditions, t -tests comparing pre- and posttest scores did not yield a significant change within each group's perception of their own risk (Non-extreme condition: $t(34) = -1.234, p = .226$; Extreme condition: $t(32) = -1.262, p = .216$).

In order to test if the prime manipulation was responsible for this effect and address Hypothesis 3, hierarchical multiple regression analyses were performed with posttest perceptions of risk as the dependent variable. Individual difference pretest measures of race, age, education, income, sympathy, empathy, need for cognition, need for orientation, health locus of control, depression, and the pretest risk perception measure were entered in the first block. The condition and prime addition (sanity) was entered in the second block to test for main effects. The interaction between the terms was entered into the third block. The final model was significant, $R^2 = .639, F(14, 16) = 4.797, p = .002$ (see Table 19), and produced a main effect for pretest perceptions of risk, $\beta = .742, t(30) = 3.745, p = .002$.

After splitting the file according to exemplar condition, individual difference pretest measures of race, age, education, income, sympathy, empathy, need for cognition, need for orientation, health locus of control, depression, and the pretest risk perception measure were again entered in the first block. The prime addition (sanity) was entered in the second block to test for its interaction with the exemplar condition. The results show clearly that there is an exemplification effect, or misperception of risk, in the non-extreme condition, while suppression, or a correction, occurs in the extreme condition. The final model in the non-extreme condition is significant, $R^2 = .865, F(11, 4) = 9.739, p = .021$, with significant

contributions for sympathy, $\beta = 1.002$, $t(15) = 3.824$, $p = .019$, need for orientation, $\beta = .768$, $t(17) = 3.835$, $p = .019$, health locus of control, $\beta = -.557$, $t(15) = -2.914$, $p = .044$, and the pretest perceptions of risk score, $\beta = .941$, $t(15) = 3.971$, $p = .017$. But what is most telling is, after controlling for all other variables, there is a significant contribution from the prime addition (sanity) measure, $\beta = -.666$, $t(30) = -3.069$, $p = .037$, which indicates that once the participants in the non-extreme condition called the target character's sanity into question coupled with the triggered memory of the non-extreme exemplar, they judged the target more harshly. It appears that this judgment, in turn, contributed to their increased perceptions of risk when compared with the extreme exemplar group. The extreme exemplar condition did not produce a significant model, nor did the split-file regression result in significant contributions by any of the variables. This suggests support for Hypothesis 3, in an unexpected way, but in a way that is supported by the social judgment literature, if not the exemplification literature. There appears to be an assimilation effect occurring in the condition with the moderate exemplar, but a contrast effect occurring in the condition with the extreme exemplar (see Figure 13).

In order to determine the effects of activated "healthy" and "good mother" goals on the participants' posttest perceptions of risk and to address Research Question 1, another hierarchical multiple regression analysis was performed. Individual difference pretest measures (sympathy, empathy, need for cognition, need for orientation, health locus of control, depression, and the pretest risk perception measure) were entered in the first block. The exemplification condition, prime addition (sanity), healthy goal, and good mother goal were entered in the second block to test for main effects. The 2-way interactions between exemplification condition, measure of sanity, health goal, and good mother goal were entered in the third block. The 3-way interactions among the goals, prime addition and condition

were entered in the fourth block and the 4-way interaction among the terms was entered in the fifth block. The final model was significant, $R^2 = .477$, $F(21, 13) = 2.477$, $p = .048$ (see Table 20), and produced a main effect for the pretest score for perceptions of risk, $\beta = .715$, $t(35) = 2.698$, $p = .018$. Coefficients approached significance for the good mother goal, $\beta = 15.460$, $t(35) = 2.061$, $p = .06$, the interaction between the good mother goal and prime addition (sanity), $\beta = -15.674$, $t(35) = -2.021$, $p = .064$. The interaction between the good mother goal and healthy goal, $\beta = -15.609$, $t(35) = -2.143$, $p = .052$ (see Figure 14), and 3-way interaction between the prime addition (sanity), good mother goal, and healthy goal, $\beta = 16.523$, $t(35) = 2.144$, $p = .052$, also approached significance.

Finally, in order to further determine how activated health goals could be affecting their perceptions of risk, particularly if their own depressive traits offered predictive value, another hierarchical multiple regression was performed. This time, individual difference pretest measures (education, income, age, race, sympathy, empathy, need for cognition, need for orientation, health locus of control, and the pretest risk perception measure) were entered in the first block. The participants' measures of depression (CES-D scale) and presence of a healthy goal were entered into the second block to test for main effects. The 2-way interaction between the participants' depression score and health goals was entered in the third block. The final model was significant, $R^2 = .609$, $F(13, 17) = 4.243$, $p = .002$ (see Table 21). Participants' need for orientation was a significant predictor of the posttest perceptions of risk of developing postpartum disorders, $\beta = .365$, $t(30) = 2.281$, $p = .036$. The coefficient for pretest perceptions of risk scores was significant, $\beta = .597$, $t(30) = 2.976$, $p = .008$, as was the coefficient for participant depression, $\beta = -.826$, $t(30) = -2.247$, $p = .038$. The 2-way

interaction between the participants' depression score and healthy goals was also significant, $\beta = .993$, $t(30) = 2.153$, $p = .046$ (see Figure 15).

Behavioral Intentions

In order to address Research Questions 2 and 3, hierarchical regression analyses were performed to determine how key variables were influencing the choices that participants intended to make in terms of speaking to her doctor if she were experiencing depressing symptoms, or conversely, postponing speaking with her doctor in order to avoid being placed on medication. In order to address the two research questions and determine the effects of the prime condition and activated "healthy" as well as "good mother" goals on the participants' posttest behavioral intentions, individual difference measures (education, income, age, race, an evaluation of the health communication video, and the pretest behavioral intention measure) were entered in the first block. The exemplification condition, prime addition (sanity), healthy goal, and good mother goal were entered in the second block to test for main effects. The 2-way interactions between exemplification condition, measure of sanity, health goal, and good mother goal were entered in the third block. The 3-way interactions among the goals, prime addition and condition were entered in the fourth block and the 4-way interaction was entered in the fifth block. The analyses failed to produce significant results for predicting participants' sense of empowerment to speak with their doctor if they are experiencing depressive symptoms. However, on the second measure, whether participants will postpone speaking to their doctor, the analysis did yield significant results, $R^2 = .645$, $F(10, 23) = 6.999$, $p < .001$ (see Table 22), with the most parsimonious model producing main effects for the video score, $\beta = -.347$, $t(33) = -2.651$, $p = .020$, and pretest score of the participant's intention toward avoidance, $\beta = .764$, $t(33) = 6.889$, $p < .001$. There were no significant interactions nor even a significant t -test to indicate that the

prime condition is having a significant predictive influence, $t(38) = -.887, p = .380$, and Figure 16 illustrates why this likely occurred. Clearly, the extreme prime manipulation is producing a correction or contrast effect, while the non-extreme condition is producing an assimilation effect. In order to see what direction the data were going in terms of prime condition, the data were recoded into pretest and posttest condition terms to reflect each primed exemplar group's pretest, or baseline score, and its posttest score. These data were entered into a one-way ANOVA and the data suggest no significant differences between the groups, $F(1, 78) = 1.64, p = .204$. The means for the pretest and posttest scores did illustrate that both conditions increased their intention to postpone speaking to their doctor in order to avoid medication, despite watching the educational health communication video (Non-extreme condition pretest: $M = 2.55, SD = 2.417$ and posttest: $M = 2.70, SD = 2.13$; Extreme condition pretest: $M = 2.25, SD = 1.682$ and posttest: $M = 3.25, SD = 1.773$). *T*-tests were performed to determine if the changes in the pretest and posttest scores approached significance, while it did not in the non-extreme condition, $t(38) = -.208, p = .836$, it did in the extreme exemplar condition, $t(38) = -1.830, p = .075$.

Mediation of Activated Goals on Behavioral Intentions

In order to determine how behavioral intentions were influenced by exemplars of maternal mental illness and activated health goals, mediation analyses were performed to address Research Questions 1, 2 and 3 and to evaluate how well the key factors influenced the participants' choices. These analyses determined the influence of the prime condition on subsequent behavioral intentions by showing that the participant's prime condition was further mediated by the woman's goal to be healthy. Research Question 1 sought to determine the relationship between the activation of a concept of extreme maternal mental illness and pregnant women's perceived likelihood of developing postpartum disorders. Research

Question 2 sought to determine the relationship between the activation of a concept of extreme maternal mental illness and pregnant women's perceived likelihood of feeling empowered to talk to her doctor about her depressive symptoms. Research Question 3 sought to determine the relationship between the activation of a concept of extreme maternal mental illness and pregnant women's likelihood of avoiding medication.

For the women's perception of risk, a regression analysis indicated that there was not a significant link between condition as the independent variable and posttest perceptions of risk for the dependent variable, $B = -.650, p = .181$. Similarly, for the first behavioral intention, a regression analysis revealed that there was not a significant link between condition as the independent variable and the empowerment behavioral intention as the dependent variable, $B = -.300, p = .653$. According to Baron & Kenny (1986), this direct effect must be significant before mediation can be established. Finally, for the second behavioral intention, a regression analysis showed that condition alone was not a significant predictor of downstream avoidance behavior, $B = .550, p = .380$. No further analyses were done and a mediation effect was not established for the posttest perception of risk, or for either behavioral intention.

Posttest Involvement

Personal involvement with the issue of postpartum depression was measured with a three-item scale. A simple *t*-test for the equality of means approached significance in indicating a difference between the non-extreme cohort ($M = 5.02, SD = 1.66$) and the extreme condition cohort ($M = 4.02, SD = 1.62$), $t(38) = 1.832, p = .075$. This indicated that the non-extreme cohort were more involved posttest, than those in the extreme condition.

CHAPTER IX

DISCUSSION

Automaticity scholars have produced evidence that external stimuli can elicit an automatic response in participants. In the past 20 years, researchers have sought to determine how primes work in real time and influence downstream behaviors. The current study assessed how pregnant women are influenced by exemplars of postpartum disorders presented via online news slideshows, their memories of which were then triggered to be accessible via a subliminal priming technique.

Social cognition researchers have hypothesized that accessible knowledge leads to a natural tendency toward assimilation. In other words, when primed with an exemplar participants tend to assimilate whatever impressions they form of the exemplar and *transfer* those traits to the target character. On the other hand, social judgment researchers have long propounded that accessible knowledge has a natural tendency toward contextual comparison. In other words, when primed with an exemplar of particular traits, participants will contextualize those traits with those of the target and the resulting judgment will *contrast* the traits of the exemplar with those of the target character (Stapel & Koomen, 2001). The existing literature cites examples of extreme exemplars most likely producing contrast effects, while more moderate exemplars produce assimilation effects (Dijksterhuis et al. 1998, Herr, 1986; Stapel, Koomen, & van der Pligt, 1997).

If one looks at the exemplification literature, one may argue that it is rife with examples of moderate exemplars, even in cases where the extremity of the exemplars has

been manipulated (see Zillmann & Brosius, 2000, for a review). For example, Gibson and Zillmann (1994) manipulated the outcomes of carjacking stories that were used as supraliminal primes in their study. One may argue that the idea of being carjacked is so abstract to most individuals that being exposed to a story in an experiment may have been the very first time that many of the participants had taken stock of their perceptions of risk for this particular phenomenon. The stories were not about famous people or people they knew being carjacked, so it could be argued that they could not embody the risk as much as the pregnant women in this experiment could embody the risk of postpartum disorders. It can be argued that since many of those studies did not manipulate the self- concept, it is unknown what effects could have occurred if they had done so.

The results of this experiment first illustrate, in terms of the non-extreme exemplar condition, a classic exemplification study and, second, in terms of the extreme exemplar condition, illustrate a classic social judgment study. This study explored the notion that an extreme exemplar of someone who has suffered from a postpartum disorder (e.g. postpartum psychosis) would either trigger assimilation of hostile traits of the exemplar (Andrea Yates) to the target character who had experienced the milder postpartum depression, or it would trigger a contrast effect whereby the hostile traits of Andrea Yates would result in a kinder assessment of the target's traits. This study also investigated whether that same extreme exemplar would trigger assimilation or contrast effects in terms of well-being traits of the target character. In terms of triggering an exemplification effect, or the misperception of risk, the study also explored the influence of an extreme versus non-extreme exemplar of postpartum disorders. Finally, the study investigated how implicitly activated healthy goals may be mediating the effects of the primes on perceptions of risk and behavioral intentions.

Due to competing findings in the literature on accessible knowledge, it was not clear what the extreme and non-extreme exemplars would yield for a sample that was so closely invested in this topic.

Individual differences were taken into account in order to parse out a true media effect. Possible moderating factors for this study included measures for education, income, age, race, sympathy, empathy, health locus of control, need for cognition, need for orientation, and depression. As such, these measures were controlled for in the regression analyses. Certainly, in the judgment of the target character, individual differences in empathic and sympathetic capacity can explain how participants in the experiment rate the target individual. Oliver (2002) acknowledges that while individual differences such as these are important in helping to clarify unexplained variance, they are inherently “messy” because it is difficult to account for all of the individual differences that serve as influences of a media effect (p. 507). However, Oliver (2002) points out that there are aspects of media audiences that “represent enduring dispositions, attitudes, or cognitions” (p. 507). As such, this study included measures for need for orientation (Matthes, 2005) in order to assess information-seeking dispositions as well as need for cognition measures (Cacioppo, Petty, & Kao, 1984). It is these enduring traits that are useful to media researchers in predicting audience attitudes and behaviors. For example, many researchers have investigated how empathy influences audiences’ responses to entertainment (see Eisenberg, 2000; Zillmann, 1991), particularly in terms of forming impressions about characters:

Many studies of character perception, however, have focused on evaluative judgments about characters’ personal attributes, often with regard to social desirability (e.g., good or bad, nice or mean). This approach seems to reflect the assumptions of implicit personality theory (see Schneider, Hastorf, & Ellsworth, 1979), which contends that the content of impressions is organized around a few underlying dimensions. In other words, a person who possesses one specific attribute

is assumed to possess a variety of related characteristics as well. In fact, research has found that general evaluative dimension (favorable-unfavorable) accounts for the largest amount of variance in impressions of others (Hoffner & Cantor, 1991, p. 63).

In Zillmann's (2006, 1991) explication of empathy, he notes that empathy is generally thought of as an affective state and differs greatly among individuals and so it "should be treated as an individual-difference variable" that influences a person's ability to place himself or herself into others' emotional state of being (p. 151). Often we experience these vivid emotions through media characters (like the target character who was presented on video), but the process is not that different from interpersonal empathic reactivity (Hoffner & Cantor, 1991). Sympathy is an affective state that is less intense than empathy, where one may understand how someone else is feeling and feel compassion for that person, but the level of involvement just isn't as strong. Research has shown that women tend to exhibit greater empathic capacity while men demonstrate greater sympathetic capacity (Myyry & Helkama, 2001).

Oliver (2002) points out that media effects researchers often deal with small to moderate main effects when manipulating an independent variable and that much of the variance in results can be explained by individual differences such as empathy or locus of control. As a concept, locus of control refers to one's perception of power over something else. As an individual measure, people are divided into two camps, "internals," who feel they have a great deal of control of the world around them, and "externals," who tend to feel less control or believe more that powerful others or fate wields control in their world (Hoffman et al., 2003). More specifically, since the video presented in this experiment features a persuasive health appeal to pregnant mothers, this study assessed participants' health locus of control (HLOC) status. The 11-item scale that was used still divides dispositions into

“internals” and “externals,” but in the context of the sense of control one has over one’s health (Walston et al., 1976). As such, the mean indicated that this sample had a slightly more “internal” disposition as a whole ($M = 4.39, SD = 1.85$). This study also sought to discover if HLOC, among other individual difference measures, influenced the behavioral intent toward the health communication video. Among other things, the participants were specifically asked if they would feel empowered to talk to their doctor if they are experiencing depressive symptoms, and/or postpone speaking to their doctor in order to avoid medication. Finally, the women were assessed for depressive symptoms using the Center for Epidemiological Studies Depression Scale (CES-D). It is a 20-item measure that was developed for a general, non-psychiatric population and has been found to have high internal consistency (alphas of .85 to .90) (Radloff, 1977). It proved to be consistent in this study as well ($\alpha = .94$).

Priming perceptions of hostile traits. The results indicated that individuals in the extreme exemplar condition reacted differently to the target character than those in the non-extreme condition in terms of assessing her hostile traits. In assessing her “selfishness,” there were no significant differences between prime conditions, and although the means varied (non-extreme exemplar condition: $M = 3.95, SD = 1.731$; extreme exemplar condition: $M = 4.50, SD = 1.147$), a *t*-test confirmed that the difference was not significant. Participants’ need for cognition and depression measures made significant contributions to predicting the evaluation of the target character; however, there was no significant contribution made by the prime addition, nor was there a significant interaction between prime addition and exemplar condition. This may be because as it appears in Figure 1, a contrast effect seems to have

occurred in the extreme exemplar condition. A significant interaction would have provided proof that the prime manipulation alone worked to trigger the mental illness concept.

For a second hostile trait measure, participants who were primed with the extreme exemplar were more likely to judge the target character more harshly in terms of whether they thought she was “a drama queen.” This determination was made from comparing the means of the two conditions. However, upon closer investigation, the results indicated that the participants reacted differently to the exemplars most likely due to significant contributions by the prime addition (the measure of sanity of the target character) as well as the participant’s age, although further regression analyses failed to parse out significant effects in terms of the two exemplar conditions. It does appear that the influence of the mental illness concept coupled with the nature of this hostile trait may be evoking a visceral reaction to Samantha — and a stronger reaction from participants in the extreme exemplar condition. Again, the prime manipulation failed to produce significant interaction so that, in terms of provoking judgment in terms of “selfish” and “drama queen” traits, this investigation wasn’t able to isolate the prime manipulation as the sole cause of the effect. It’s clear that there is much more at play here, and that in addition to the participants’ own pretest dispositions, their activated goals provided important influences in determining their judgments, perceptions of risk, and behavioral intentions. These interactions with activated goals also may provide the necessary proof to determine that the contrast effects that appear to be occurring in the extreme exemplar conditions are not simply corrections, or reflective of how one would react in a neutral condition.

Priming perceptions of depressive traits. While the regression analyses testing for an interaction between the prime addition (sanity) and exemplar condition failed to produce

significant results, the regression analyses of the prime addition and activated “healthy” and “good mother” goals proved to be a fruitful investigation. As seen in Figures 4 and 5, an activated healthy goal is interacting with the mental illness concept (sanity) and is more likely to be causing participants to feel that the target character is more depressed. This effect was significant in the final model, and upon further analysis, was significant in the extreme exemplar condition. Although the small size of this sample provides clear limitations in terms of hierarchical regression analysis, and perhaps it can be argued that this is not enough power to definitively make the claim that the prime addition (sanity) and healthy goal interaction was truly significant in the extreme exemplar condition, it can be argued that this is a direction that the research needs to follow. It appears that there is an influence that goals and self-concepts are having on individuals’ interactions with media and may be determining what is occurring in their downstream behavior.

The results of regression analyses done to address Hypotheses 2 and 2a provide more elucidation that the contrast effect that appears to be occurring in the extreme exemplar condition is not a simple correction, but is an actual effect that is being caused by the prime manipulation. The interaction between condition and prime addition was significant (see Figure 6) in the full regression model predicting the evaluation of the target character’s stability. The results indicate that as the target’s character was evaluated to be less sane, those participants in the extreme condition who were triggered by memories of Andrea Yates countered those impressions of the extreme exemplar and judged the target character to be more stable than did those in the non-extreme exemplar condition. It appears that the non-extreme exemplar group are following a clear assimilation pattern, as the target character’s sanity is called into question, so was her stability.

When the activated “healthy” goal is included in the analyses, clearer assimilation and contrast results emerged that aligned with the non-extreme and exemplar conditions, respectively. In testing the influence that activated goals have on the evaluation of the target character’s overall well-being (30-item scale), the results produced significant exemplar condition and prime addition (sanity) interaction (Figure 7) as well as significant exemplar condition and healthy goal interaction (Figure 8). Participants in the extreme exemplar condition aligned their evaluations with the non-extreme cohort and evaluated the target character’s overall well-being as positively as they did her sanity when that mental illness concept was not called into question; however, as soon as the target’s sanity was negatively evaluated, the extreme group countered with a more positive evaluation of the target’s well-being. Interestingly, when the participants’ healthy goal was also activated, their judgment of the target’s overall well-being matched that of the non-extreme group; however, when their healthy goal was not activated, their judgment of the target character was harsher.

It appears that triggering the self-concept in the extreme exemplar condition, as this experimental procedure has appeared to have done, also triggered a protective reaction — one that coincided with the contrast effect. It appears that the Andrea Yates exemplar may have triggered not only the “mentally ill” concept, but the “motherhood” concept as well. Perhaps this is increasing the empathetic capacity of those in the extreme group toward the target character. Once she is implicitly compared to Andrea Yates, the comparison is contextualized and a contrast effect occurs. Much like Dijksterhuis et al.’s (1998) Einstein exemplar tapped into the “intelligent” concept as well as the “stupid” concept, in that once participants were primed with the self-referent concept, they viewed themselves as less intelligent than the extreme exemplar that Einstein represents. It may be that the target character tapped into each participant’s self-

concept (Markus & Wurf, 1987). As they are pregnant themselves, they embody the risk that Andrea Yates, in the extreme sense, represents and as a result, those in that condition reacted with self-preservation. This was not an effect that was seen in a similar study conducted by Holman and Dillman Carpentier (2009), where the stimulus material involving maternal mental illness clearly didn't tap into the self-concept of the college students who served as participants.

Similarly, the activated "healthy" goal may be offering a shield in that those whose goals were activated judged the target character's overall well-being similarly in both conditions. However, participants whose goals were not activated and were in the extreme exemplar condition judged the target character more harshly than did those who were in the non-extreme condition. Automaticity researchers have long illustrated how implicit goals can influence behavior. As mentioned before, Fishbach and Dhar (2005) were able to prime health goals outside of their participants' awareness and were able to distinguish differences in behavior based on those primed goals. Participants would "borrow" from their weight-loss efforts if they were primed with a "progress" goal and thought that they were, indeed, making progress. This resulted in indulging in an unhealthy snack or meal. Chartrand et al. (2008) were able to prime "thrift" and "prestige" goals outside of participants' awareness as well and were able to show that non-conscious goals behave much like consciously activated goals. In particular, once the non-conscious goal was satiated with a goal-congruent choice, the goal was no longer active. It would be interesting to see if, postpartum, these women's goals are satiated somehow by the birth of a healthy baby and the activated healthy goal (in terms of themselves) is no longer active. Or does this healthy goal maintain its place and "shield" the mother from correcting her perceptions of risk (see Figure 14) and increase her tendency to engage in avoidance behavior?

The results indicated a similar pattern in the interactions between the prime addition (sanity) and exemplar condition as well as the condition and activated healthy goal for participants' evaluation of the target character's calm traits. The results also found a significant interaction between the healthy goal and prime addition in terms of predicting the evaluation of the target's well-being traits related to control situations. Clearly, the activated healthy goal has emerged as an important contributor to this study's findings.

In terms of the exemplification effect, or misperception of risk, both an individual's predisposition to risk as well as their prime condition were significant contributors to the posttest perception of risk. First, the results of an ANOVA and *t*-tests showed that those in the extreme exemplar condition had significantly lower perceptions of risk at the end of the experiment than those in the non-extreme condition. While the full regression model could not pinpoint the prime manipulation as being solely responsible for the difference, the file was split according to condition and further analyses revealed that the prime addition was a significant predictor in the outcome of the non-extreme group's perception of risk. The assimilation effect that appears to have occurred in the non-extreme condition aligns these results with classic exemplification literature and with Holman and Dillman Carpentier's (2009) previous findings with college students, where the exemplars may have been "moderate" by default. In other words, because previous participants of exemplification studies did not make the exemplars personal or tap into the self-concept, it was easier to assimilate or transfer traits and perceptions of risk to themselves or others. It appears that once the self-concept is threatened, contextual comparison occurs. In the case of this study's non-extreme exemplar condition, the participants' self-concept wasn't threatened, so no contrast effect occurred. What is intriguing is that despite the strong predispositions in their

own perceptions of risk, it appears that the prime manipulation did have a significant influence after all, albeit in an unexpected way. What is fascinating are the results for the posttest perceptions of risk in terms of the influence of activated healthy and “good mother” goals as it appears that these two goals work in concert to predict higher perceptions of risk of developing postpartum disorders (see Figure 14). The activated healthy goal also interacted with the participants’ own depressive traits to predict increased perceptions of risk as well, a powerful result when one considers that taken alone, the more depressed participants were, the lower their perceptions of risk were.

Finally, the results show that in terms of behavioral intentions, those in the extreme exemplar condition were more likely to postpone speaking with their doctor in order to avoid medication. This is despite having corrected their judgment over and over again when evaluating traits of the target character in conjunction with her sanity and evaluating her in a more positive light when her mental health was called into question. This intended avoidance behavior was expressed despite suppressing their perceptions of risk of developing postpartum disorders, and these results occurred despite exposure to a persuasive health communication video that was rated rather positively ($M = 6.63$, $SD = 1.10$). While the results of this study cannot be generalized to a larger population of pregnant women, these results do suggest support for Luce and her colleagues’ theory that highly emotional decision-making can result in avoidance behavior. These emotions can be induced implicitly, yet are potent influences in the decision-making process. Individuals who experience more emotion tend to avoid difficult choices by choosing avoidance behaviors instead as a coping mechanism (Luce, Bettman, & Payne, 2001; Luce, 2005).

Limitations

While the results of this study show great potential, there are a number of limitations to this, and all, experimental research. As stated before, the results of experimental designs cannot be generalized to a larger population, and in this case, a larger population of pregnant women. Experimental designs are designed to explain phenomena on a micro level, by pointing out how different stimuli or individual differences explain variance in results (or how people react or behave toward the stimulus). While the power of experimental designs comes from the manipulation and control of what participants are exposed to and the subsequent claim of causality in their results, they lack the ability to extend those results beyond the experiment at hand. And while this experiment is more powerful than the experiment done by Holman and Dillman Carpentier (2009) in that this investigation triggered effects on a more externally valid sample, more and varied research of this particular population is needed to allow for extended generalizations to be made about how pregnant women react to media accounts of maternal mental illness. On that note, the most important limitation to this study was the sample size. The experiment had a low number of participants in both the extreme exemplar condition ($n = 20$) as well as the non-extreme condition ($n = 20$). The experiment should have had more participants; particularly to provide more power to support the regression analyses of additional factors of activated healthy and good mother goals.

Another limitation was the risk of inflated Type 1 error. This possibility presents itself in data analyses when all of the hypotheses and research questions are tested at the .05 level, and thus the results may have indicated an inflated Type 1 error. A Type 1 error occurs

when a study shows statistical evidence that allows for the rejection of a null hypothesis, when that hypothesis is indeed true.

Another limitation of this study was the control of lag time between exposure to the pretest Web site and the prime manipulation. As this was essentially a field experiment, it was difficult to control when participants would choose to view the Web site after receiving the link at home as well as to control when they were available to meet with the researcher. Future research could address this issue with set appointments for pretest exposure as well.

Another limitation was the failure to ask participants about their consumption of information about health information beyond what they seek out on the Internet. Participants were not asked about what they have read about in magazines, newspapers, or in books. This consumption of health information could have influenced the results, in that individuals who reported consuming more health information may have responded with lower perceptions of risk to developing postpartum disorders.

Despite these limitations, the study showed a relationship between extremity of exemplars of maternal mental illness, individuals' predispositions of depression and risk, among other individual differences, and the ability of the media to prime individuals in their evaluations of a target character and to possibly influence behavioral intentions.

CHAPTER X

CONCLUSION

Findings

Perinatal depression is a disorder that involves depressive episodes that occur either during pregnancy (prenatal depression) or within the first 12 months after the baby is born (postpartum depression). This disorder can have very serious consequences on the mother, as well as her child and her family. Research has shown that women who have postpartum depression have lower quality interactions with their children (Stein et al., 1991), which can lead to developmental delays in the children (Chewning, 2009). Perinatal depression has also been connected with greater use of emergency department services; more missed pediatric appointments, higher levels of psychiatric disturbances among children, and children feeling more insecure in attachment relationships (Gavin et al., 2005).

Pregnant women in this sample were influenced by their predispositions of their perceived risk, enacted “healthy” and “good mother” goals, as well as the media triggering their implicit stereotypes of maternal mental illness in increasing their perceptions of risk of developing postpartum disorders. Interestingly, those who were triggered with the memory of the non-extreme, or more moderate, exemplar of postpartum disorders had higher perceptions of risk of developing postpartum depression. This result aligns itself with a plethora of other exemplification studies that, it can be argued, also used moderate exemplars (Zillmann & Brosius, 2000). On the other hand, those primed with memory of the extreme exemplar of postpartum disorders had lower posttest perceptions of risk than the non-extreme cohort.

Those same participants were also more likely to postpone speaking to their doctor in order to avoid medication if they thought they were experiencing depressive symptoms. This occurred even after being exposed to a health communication video designed to educate and persuade them to speak to their health care provider if they were to experience depressive symptoms. It appears that the extreme exemplar is triggering a self-preservation reaction.

The results here indicate that the extremity of exemplars does influence how pregnant women — who clearly are embodying the risk after being informed that one in ten of them will likely develop postpartum depression — react in terms of their perceptions of risk of developing postpartum disorders and their likelihood of engaging in avoidance behavior. What this study has done in terms of contributing to automaticity and exemplification literature is that by tapping into the self-concept and activated goals of a group of individuals who embody a particular risk, this investigation has been able to determine more significant measures of attitudes and behavioral intentions in an important realm of health risk perception. In terms of simple media priming, this study was successful at parsing out the condition and prime addition (sanity) interaction as a significant contributor to how participants evaluated the target character's stability; however, what is more important is this study's contribution in parsing out how the media prime interacted with participants' enacted goals in determining many other judgments, self-perceptions, and behavioral intentions.

What this study has also pointed out for media exemplification scholars is that despite the consistent success with priming assimilation effects on perceptions of risk for different health and welfare issues, a key direction in this research is to assess participant goals in terms of health and how those goals help determine perceptions of risk. It is also important to assess possible behavioral intentions in terms of preventative or potential treatment options.

By testing this design in the realm of other health or welfare issues that also tap directly into the self-concept of the sample being used, it is likely that others will be able to discover more significant interactions and behavioral intentions. In addition, exemplification scholars should test for a *sleeper effect* in order to determine not only if the risk perception grows over time in the moderate and/or extreme exemplar conditions, but if an activated goal contributes to the increase. Experimental designs could also investigate what occurs when these goals are satiated as opposed to not being satiated and perhaps what effect this has on behavioral intentions like avoidance.

The takeaway lesson for journalists who report on health communication issues is that despite correcting for attitudes and risk perception, extreme exemplars of health phenomena may be leading to increased avoidance behavior by individuals in engaging their health care providers. Conversely, while stories about regular people who suffer from a particular disorder may, as predicted by exemplification theorists, increase perceptions of risk and, as predicted by social cognition theorists, assimilate traits to others who suffer from the disorder and lead to harsher judgments; it does appear to lead individuals to more engagement with their health care providers. So while reports of women who commit infanticide are deemed newsworthy, journalists should use those opportunities to provide a more comprehensive report on the issue. By speaking and citing medical experts about the statistical likelihood of extreme examples of a particular phenomenon, as well as contextualizing the story with other, more moderate examples, readers would perhaps be better served in terms of their own medical decision-making. Journalists need to make the effort in this type of medical reporting to report “both sides of the story,” so to speak: The newsworthy side, and the public service side.

Qualitatively, all the women in this study expressed gratitude over the fact that they had an outlet to discuss this issue. Many were surprised by how common postpartum depression was; and although a number of these women had known someone personally who had experienced postpartum depression, the results of this study suggest that they were still vulnerable to implicit media influence. The takeaway for pregnant women is that they should be aware of the influence that societal expectations, the media, the stressors of their jobs, partners, their children, and health care providers all have on their own realistic — and perhaps unrealistic — expectations of how a baby will change their lives. There is no doubt of the medical etiology of perinatal depression, but there are a number of other factors that also contribute to the onset and severity of these disorders. Pregnant women need to be aware of and share with their health care provider any personal or family history of depression, as well as any factors that may be adding stress to their pregnancy. They need to be advocates for their own health and welfare, and not avoid the subject of depression because they may feel shame or embarrassment, or feel that they don't have a say in their treatment plan.

Obstetricians and other providers of prenatal care need to be more proactive in their assessment of the mental health of their patients during their pregnancies and post partum. The Edinburgh Postpartum Depression Scale is a useful tool that should be utilized at intervals during the pregnancy as well as at the standard postpartum office visits. This allows women who may not feel compelled to speak up — or who simply are not aware that what they are experiencing does constitute depression — a chance to assess how they are feeling and share that with a medical professional. In addition, obstetricians should not only be prepared to offer medication in their treatment plan, but be plugged into what is available to new mothers in terms of mental health care and support groups.

Future studies

This study is part of a stream of research into a highly emotional area of medical decision-making. While accepting the probably inevitability of automatically activating their implicit stereotypes (Bargh, 1999) against maternal mental illness and/or mental illness in general and subsequent evaluations of a target individual who has suffered from postpartum depression, we hope to better understand how the enacted dispositions of pregnant women could be affecting how treatment options are being evaluated and acted on. Also, by comparing intended behavioral results of the extreme prime and non-extreme prime conditions, and the interaction of activated goals, we hope to be able to distinguish differences in the effectiveness of different health communication videos. This effort could certainly lead to manipulations in argument strength in future experiments utilizing a health communication video of this nature. Studies that would compare risk learning models — protection motivation theory (Rogers, 1975, 1983), and the health belief model (Becker, Haefner, Kasl, et al., 1977; Becker, Haefner, & Maiman, 1977; Rosenstock, 1974) — and the stereotype priming model (Bargh, 1989; Bargh, Chen, & Burrows, 1996) would also lead to fruitful investigations in terms of health communication research (Pechmann, 2001). For example, much like Pechmann and Ratneshwar (1994) used stereotypes of smokers to enact increased behavioral intentions of participants not to smoke, testing messages or stories of women who suffered from postpartum depression and avoided treatment could instill positive behavioral intentions in pregnant women or women of child-bearing age to engage their health care providers on the issue of perinatal depression. Certainly, the results of this study would be strengthened by survey data gathered from pregnant women as well as obstetricians

in order to provide a record of the stressors they encounter as patients and health care practitioners respectively. This would provide greater generalization of results.

Finally, there are a plethora of study ideas that could stem from the relationship that a pregnant woman has with her partner or spouse and how they influence her health choices. Future studies will take into account implementation intentions (see Gollwitzer & Oettingen, 2000) and reactance (see Chartrand et al., 2007) to assess how these predispositions could be influencing the treatment choices for the mother as well as joint decisions regarding the newborn. Ultimately, this stream of research aims to provide a comprehensive look at the interaction of media influence, interpersonal influence, and medical decision-making at a key point in the emergence and implementation of health goals. This is an important undertaking considering the possible outcomes in the lives of new mothers as well as the lives of their children.

TABLES

Table 1
Descriptive Statistics of Continuous Variables

	<i>M</i>	<i>SD</i>	<i>Range</i>	<i>Skewness</i>	<i>Kurtosis</i>
Empathy	6.75	0.88	3.85	-.625	-.018
Sympathy	4.10	1.02	4.09	-.110	-.585
Need for Cognition	6.21	0.76	3.85	.405	1.183
Need for Orientation	3.23	1.65	6.20	.904	-.016
Health Locus of Control	4.39	1.85	7.00	-.088	-.692
Depression (CES-D Scale)	5.63	1.63	7.50	-.644	.461
Sanity (target: Samantha)	5.74	0.84	3.07	.311	-.791
Hostility 1 (target)	4.23	1.48	8.00	.597	1.725
Hostility 2 (target)	4.27	1.20	5.00	-.848	.018
Depression 2-item DV (target)	6.76	1.45	7.00	-.778	1.726
Overall Well-being (target)	4.62	0.90	5.50	-.223	3.154
Stability Score (target)	4.73	0.82	4.30	.026	1.707
Happy Score (target)	4.41	1.04	6.00	.032	1.995
Calm Score (target)	4.71	1.05	6.60	-1.034	4.155
Wellscore1 (emotional control)	4.49	0.90	5.71	.886	5.052
Wellscore2 (emotions/cognitions)	4.80	1.21	5.45	.100	.394
Wellscore3 (emotional reactance)	4.58	1.21	5.40	-.866	.873
Pretest Exemplification Effect Score	3.25	2.42	9.00	1.085	.482
Posttest Exemplification Effect Score	3.38	1.52	6.33	.370	-.282
Video Score	6.63	1.10	4.36	-.003	-.699
Posttest Involvement in Postpartum Depression Issue	4.54	1.69	7.33	.281	.111

Note: All measures are based on a nine-point scale (1 = strongly disagree, 9 = strongly agree) ($n = 40$)

Table 2: Correlation Matrix and Descriptive Statistics for Key Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
1. Sympathy	1																						
2. Empathy		1																					
3. Need for cogn.			1																				
4. Need for orient.				1																			
5. HLOC					1																		
6. Depression						1																	
7. Exemplification Effect (pretest)							1																
8. Exemplification Effect (loss)								1															
9. Sanity traits (target)									1														
10. Hostility trait 1 (target)										1													
11. Hostility trait 2 (target)											1												
12. Depressed traits (target)												1											
13. WellScore													1										
14. StabilityScore														1									
15. HappyScore															1								
16. CalmScore																1							
17. WellScore1 (emot/control)																	1						
18. WellScore2 (emot/learn.)																		1					
19. WellScore3 (emot/learn.)																			1				
20. VideoScore (emot/learn.)																				1			
21. Behavior intent1 (empower)																					1		
22. Behavior intent2 (avoid)																						1	
# of items	13	26	18	9	11	20	6	6	14	1	1	2	30	10	10	10	14	14	14	14	14	14	1
Internal reliability	.73	.79	.94	.93	.67	.94	.92	.85	.84	n/a	n/a	.53*	.94	.84	.82	.92	.90	.94	.82	.91	.91	n/a	n/a

Table 2 Note: All items recorded on a 9-item Likert scale.
 * In the case of 2-item scales, the correlation coefficient is reported, otherwise alpha.
^a Correlations (*r*) significant at the 0.01 level. ^b Correlations (*r*) significant at the 0.05 level.

Table 3
*Exploratory Factor Analysis Showing the Total Variance Explained for the Analysis
of the Well-being Traits of the Target Character “Samantha”*

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	12.622	42.073	42.073	12.399	41.329	41.329
2	3.632	12.107	54.180	3.397	11.323	52.652
3	2.332	7.773	61.953	2.047	6.822	59.474
4	1.863	6.209	68.163	1.639	5.463	64.936
5	1.450	4.833	72.996	1.172	3.906	68.842
6	1.278	4.260	77.256	1.022	3.407	72.249
7	1.132	3.775	81.030	.885	2.949	75.199
8	.918	3.061	84.091			
9	.773	2.577	86.668			
10	.621	2.069	88.736			
11	.502	1.673	90.409			
12	.447	1.490	91.899			
13	.409	1.362	93.261			
14	.316	1.054	94.315			
15	.302	1.005	95.320			
16	.293	.976	96.296			
17	.227	.755	97.051			
18	.166	.552	97.603			
19	.137	.455	98.058			
20	.110	.365	98.423			
21	.098	.325	98.749			
22	.090	.299	99.048			
23	.077	.256	99.304			
24	.073	.242	99.546			
25	.053	.178	99.724			
26	.027	.089	99.813			
27	.024	.078	99.891			
28	.022	.074	99.965			
29	.007	.022	99.987			
30	.004	.013	100.00			

Table 4
*Exploratory Factor Analysis Showing the Factor Loadings for the Analysis
of the Well-being Traits of the Target Character “Samantha”*

Well-being Traits of “Samantha”			
	Emotional Control Scale	Emotion Related to Cognitions	Emotional Reactance
14. Looks at the bright side of life.	.839		
19. Dislikes herself. (R)	.808		
6. Gets stressed out easily. (R)	.803		
23. Takes things as they come.	.785		
29. Loses her temper. (R)	.772		
25. Gets angry easily. (R)	.707		
1. Seldom gets mad.	.706		
16. Often feels blue. (R)	.703		
27. Gets furious. (R)	.647		
30. Has days when she is mad at the world. (R)	.606		
4. Seldom takes offense.	.602		
13. Adapts easily to new situations.	.547		
12. Feels comfortable with herself.	.350		
2. Is not easily bothered by things.	.130		
10. Gets caught up in her problems. (R)		-.921	
22. Is not easily annoyed.		-.822	
9. Changes her mood a lot. (R)		-.804	
15. Is sure of her ground.		-.800	
24. Accepts people as they are.		-.784	
21. Rarely gets irritated.		-.778	
3. Is not easily frustrated.		-.763	
26. Is often in a bad mood. (R)		-.734	
11. Seldom feels blue.		-.727	
8. Is easily disturbed. (R)		-.689	
5. Keeps her cool.		-.643	
18. Feels threatened easily. (R)			.753
20. Is filled with doubts about things. (R)			.693
28. Snaps at people. (R)			.684
7. Gets upset easily. (R)			.658
17. Worries about things. (R)			.396
Eigenvalue	12.622	3.632	2.332
Variance	42.073	12.107	7.773

Note: Principal Axis factoring on three fixed factors with Direct Oblimin Rotation.

Table 5
Principal Components Analysis Showing the Factor Loadings
for the Pretest Perceptions of Risk of Developing Postpartum Disorders

	Evaluation of Risk
POSTPARTUM DEPRESSION vulnerability	.770
“BABY BLUES” vulnerability	.911
POSTPARTUM PSYCHOSIS vulnerability	.817
I think it’s likely that I will experience the “BABY BLUES” after giving birth.	.820
I think it’s likely that I will experience POSTPARTUM DEPRESSION after giving birth.	.922
I think it’s likely that I will experience POSTPARTUM PSYCHOSIS after giving birth.	.805
Eigenvalue	4.259
Variance	70.989

Note: The KMO indicated that the evaluation of sanity of the target character was marginally factorable ($KMO = .694$). A Principal Components Analysis was completed that showed the 6 statements strongly loaded on one factor ($n = 40$). Because of the high reliability ($\alpha = .905$) the scale was kept intact for analyses.

Table 6
Principal Components Analysis Showing the Factor Loadings
for the Posttest Perceptions of Risk of Developing Postpartum Disorders

Evaluation of Risk	Component Matrix	
	1	2
POSTPARTUM DEPRESSION vulnerability	.824	-.381
“BABY BLUES” vulnerability	.781	-.067
POSTPARTUM PSYCHOSIS vulnerability	.753	.502
I think it’s likely that I will experience the “BABY BLUES” after giving birth.	.660	-.546
I think it’s likely that I will experience POSTPARTUM DEPRESSION after giving birth.	.875	-.055
I think it’s likely that I will experience POSTPARTUM PSYCHOSIS after giving birth.	.659	.603
Eigenvalue	3.490	1.065
Cumulative Variance	58.174	75.930

Note: The KMO indicated that the evaluation of sanity of the target character was marginally factorable ($KMO = .709$). A Principal Components Analysis was completed that showed the 6 statements loaded on two factors ($n = 40$). Because of the high reliability ($\alpha = .845$) the scale was kept intact for analyses.

Table 7
Principal Components Analysis Showing the Factor Loadings
for the Analysis of the Sanity (Prime Addition) of Target Character “Samantha”

Evaluation of “Samantha”	Component Matrix			
	1	2	3	4
Samantha is sane.	.678	.117	.127	-.290
Samantha is competent.	.456	.282	.518	.257
Samantha is loving.	.536	.441	.298	-.451
Samantha is honest.	.457	.166	.172	.197
Samantha is friendly.	.553	.257	-.380	.468
Samantha is stable.	.781	-.276	.067	-.243
Samantha is responsible.	.731	-.398	.282	.072
Samantha is nurturing.	.586	.609	.063	.088
Samantha is reliable.	.789	-.175	-.047	-.098
Samantha is careful.	.719	-.237	-.215	-.145
Samantha is expressive.	.251	.436	-.710	.160
Samantha is safe.	.458	-.740	-.329	-.020
Samantha is trustworthy.	.802	.053	-.181	.209
Samantha is hopeful.	.055	-.308	.374	.752
Eigenvalue	5.014	1.909	1.469	1.349
Cumulative Variance	35.811	49.447	59.943	69.581

Note: The KMO indicated that the evaluation of sanity of the target character was marginally factorable ($KMO = .624$). A Principal Components Analysis was completed that showed the 14 statements loaded on four factors ($n = 40$). Because of the high reliability ($\alpha = .836$) the scale was kept intact for analyses.

Table 8
Regression Analysis for Variables Predicting “Selfish” Trait of Target Character

Independent Variable	Model Statistics					
	Model 1		Model 2		Model 3	
	<i>B</i> (<i>SE B</i>)	β	<i>B</i> (<i>SE B</i>)	β	<i>B</i> (<i>SE B</i>)	β
Block 1						
Sympathy	-.149 (.276)	-.093	-.043 (.291)	-.027	-.061 (.292)	-.038
Empathy	-.017 (.328)	-.010	-.011 (.338)	-.007	-.136 (.360)	-.082
Need for Cognition	-.414 (.141)	-.503*	-.426 (.143)	-.519*	-.410 (.144)	-.499*
Depression	-.441 (.144)	-.543*	-.412 (.145)	-.507*	-.442 (.145)	-.519*
Need for Orientation	.032 (.132)	.046	.165 (.163)	.236	.149 (.164)	.213
Health Locus of Control	-.149 (.194)	-.120	-.148 (.214)	-.119	-.132 (.215)	-.106
Education Category	.947 (.523)	.316	.703 (.552)	.244	.613 (.564)	.205
Age Category	.510 (.430)	.257	.647 (.483)	.326	.614 (.484)	.309
Race Category	.146 (.614)	.037	.628 (.703)	.159	.913 (.758)	.232
Income Category	-.817 (.304)	-.535*	-.635 (.343)	-.416	-.501 (.368)	-.328
Block 2						
Condition			.200 (.486)	.079	3.899 (3.714)	1.536
Sanity (prime addition)			-.446 (.315)	-.291	-.217 (.390)	-.141
Block 3						
Condition * Sanity					-.642 (.639)	-1.413
	<i>Adj. R</i> ₂ = .381		ΔR ₂ = .386		ΔR ₂ = .386	
	(<i>F</i> (10, 23) = 3.028,		(<i>F</i> (12, 21) = 2.728,		(<i>F</i> (13, 20) = 2.597,	
	<i>p</i> = .014)*		<i>p</i> = .021)*		<i>p</i> = .027)*	

Note: Block 3 *R*₂ = .386, *F*(13, 20) = 2.597, *p* < .05. Coding as follows: Condition (0 = non-extreme, 1 = extreme exemplar), Empathy (centered) (-.886 = low, .615 = high), Sympathy (centered) (low = -.669, high = .547), Need for Cognition (centered) (low = -.709, high = -.110), Need for Orientation (centered) (low = -.192, high = .491), Health Locus of Control (centered) (internal = -.580, external = .316), Depression (centered) (low = -.725, high = -.119), Age Category (1 = 18-22, 2 = 23-31, 3 = 32-36), Sanity (centered) (low = -1.687, high = -.566). Dependent variable is Assessment of a Hostile Trait (centered) to answer Hypothesis 1 and Hypothesis 1a. **p* < .05, ***p* < .001 (*n* = 34).

Table 9
Regression Analysis for Variables Predicting “Drama Queen” Trait of Target Character

Independent Variable	Model Statistics					
	Model 1		Model 2		Model 3	
	<i>B (SE B)</i>	β	<i>B (SE B)</i>	β	<i>B (SE B)</i>	β
Block 1						
Sympathy	-.039 (.293)	-.028	.245 (.259)	.179	.246 (.266)	.180
Empathy	-.188 (.348)	-.133	-.293 (.300)	-.207	-.284 (.328)	-.201
Need for Cognition	.215 (.149)	.306	.226 (.127)	-.322	.225 (.131)	.320*
Depression	-.125 (.153)	-.180	-.072 (.129)	-.103	-.071 (.132)	-.102
Need for Orientation	-.054 (.140)	-.090	.245 (.145)	.409	.246 (.149)	.411
Health Locus of Control	-.164 (.206)	-.154	-.289 (.191)	-.272	-.290 (.196)	-.273
Education Category	.629 (.555)	.246	.377 (.491)	.147	.385 (.515)	.151
Age Category	.479 (.456)	.282	1.013 (.430)	.596*	1.015 (.442)	.598*
Race Category	-.770 (.652)	-.229	-.035 (.625)	-.010	-.056 (.691)	-.016
Income Category	-.551 (.323)	-.421	-.353 (.305)	-.271	-.363 (.336)	-.278
Block 2						
Condition			-.259 (.432)	.119	-.525 (3.386)	-.242
Sanity (prime addition)			-.961 (.281)	-.733*	-.978 (.355)	-.745*
Block 3						
Condition * Sanity					.046 (.583)	.119
	<i>Adj. R</i> ₂ = .046		ΔR ₂ = .335		ΔR ₂ = .302	
	(<i>F</i> (10, 23) = 1.157,		(<i>F</i> (12, 21) = 2.387,		(<i>F</i> (13, 20) = 2.099,	
	<i>p</i> = .366)		<i>p</i> = .039)*		<i>p</i> = .066)	

Note: Block 2 *R*₂ = .335, *F*(12, 21) = 2.387, *p* < .05. Coding as follows: Condition (0 = non-extreme, 1 = extreme exemplar), Empathy (centered) (-.918 = low, .332 = high), Sympathy (centered) (low = -.294, high = .784), Need for Cognition (centered) (low = -.038, high = .490), Need for Orientation (centered) (low = -.057, high = .547), Health Locus of Control (centered) (internal = -.686, external = .107), Depression (centered) (low = -.340, high = .197), Age Category (1 = 18-22, 2 = 23-31, 3 = 32-36), Sanity (centered) (low = -1.545, high = -.378). Dependent variable is Assessment of a Hostile Trait (centered) to answer Hypothesis 1 and Hypothesis 1a. **p* < .05, ***p* < .001 (*n* = 34).

Table 10
Regression Analysis for Variables Predicting Depressive Traits (2-Item Scale) of Target

Independent Variable	Model Statistics							
	Model 1		Model 2		Model 3			
	<i>B</i> (<i>SE B</i>)	β	<i>B</i> (<i>SE B</i>)	β	<i>B</i> (<i>SE B</i>)	β		
Block 1								
Sympathy	.034 (.339)	.021	-.222 (.320)	-.135	.059 (.282)	.036	.008 (.283)	.005
Empathy	.633 (.456)	.333	.756 (.414)	.398	.567 (.354)	.298	.674 (.369)	.355
NFC	.172 (.193)	-.194	-.260 (.172)	.293	-.179 (.135)	-.201	-.236 (.136)	-.266
Depression	.080 (.183)	.091	.076 (.171)	.086	-.039 (.141)	-.045	-.032 (.142)	-.037
NFO	-.124 (.165)	-.158	-.025 (.178)	-.032	-.076 (.141)	-.098	-.042 (.144)	-.053
HLOC	-.066 (.256)	-.046	-.111 (.256)	-.078	-.101 (.217)	-.071	-.378 (.250)	-.266
Age	-.389 (.434)	-.187	-.525 (.454)	-.252	-.815 (.374)	-.391*	-.819 (.394)	-.393
Block 2								
Condition		.491 (.500)	.172	-4.921 (3.021)	-1.724	9.231 (9.968)	3.234	
Sanity		-.310 (.311)	-.181	-3.028 (.848)	-1.769*	-2.751 (.933)	-1.607*	
“Healthy” Goal		1.155 (.543)	.350*	-14.043 (5.768)	-4.260*	-16.219 (7.033)	-4.920*	
“Good Mother” Goal		1.017 (.520)	.356	-5.218 (2.957)	1.828	-25.721 (19.978)	-9.010	
Block 3								
Condition * Sanity				.665 (.532)	1.316	-2.086 (1.898)	-4.125	
Condition * Healthy Goal				2.244 (1.426)	.770	-6.571 (11.235)	-2.255	
Condition * Good Mother Goal				-.971 (.785)	-.284	-6.706 (7.863)	-1.962	
Sanity * Healthy Goal				2.332 (.912)	4.232*	2.828 (1.142)	5.132*	
Sanity * Good Mother Goal				1.027 (.514)	2.122	4.689 (3.494)	9.685	
Healthy Goal * Good Mother Goal				.589 (1.006)	.202	27.868 (19.583)	9.565	
Block 4								
Condition*Sanity*Good Mother Goal						1.800 (1.269)	2.928	
Condition*Sanity*Healthy Goal						1.707 (2.106)	3.406	
Condition*Healthy Goal*Good Mother Goal						-4.121 (3.885)	-1.097	
Sanity*Healthy Goal*Good Mother Goal						-4.874 (3.414)	-10.078	
Block 5								
Sanity*Healthy Goal*Good Mother Goal*Condition							no results	
	$\Delta R^2 = -.074$	$\Delta R^2 = .166$	$\Delta R^2 = .510$	$\Delta R^2 = .544$				
	($F(7, 32) = .615$,	($F(11, 28) = 1.708$,	($F(17, 22) = 3.383$,	($F(21, 18) = 3.215$,				
	$p = .739$)	$p = .123$)	$p = .004$ *)	$p = .008$ *)				

Note: Block 3 $R^2 = .510$, $F(17, 22) = 3.383$, $p < .05$. Coding as follows: Condition (0 = non-extreme, 1 = extreme exemplar), Empathy (centered) (-.167 = low, 1.300 = high), Sympathy (centered) (low = -.526, high = .644, Need for Cognition (centered) (low = -.459, high = .102), Need for Orientation (centered) (low = -.368, high = .216), Health Locus of Control (centered) (internal = -.551, external = .349), Depression (centered) (low = -.332, high = .254, Age Category (1 = 18-22, 2 = 23-31, 3 = 32-36), Sanity (centered) (low = -4.787, high = -1.268). Dependent variable is Assessment of Depressive Symptoms (centered) to answer Hypothesis 1 and Hypothesis 1a. * $p < .05$, ** $p < .001$ ($n = 40$).

Table 11
Regression Analysis for Variables Predicting Well-being Traits (30) of Target Character

Independent Variable	Model Statistics					
	Model 1		Model 2		Model 3	
	<i>B (SE B)</i>	β	<i>B (SE B)</i>	β	<i>B (SE B)</i>	β
Block 1						
Sympathy	.424 (.196)	.414*	.347 (.197)	.339	.353 (.198)	.345
Empathy	-.225 (.249)	-.019	-.223 (.250)	-.188	-.297 (.266)	-.251
Need for Cognition	-.044 (.105)	-.079	-.054 (.102)	-.098	-.043 (.103)	-.078
Depression	-.062 (.099)	-.113	-.047 (.097)	-.086	-.048 (.098)	-.087
Need for Orientation	.140 (.088)	.287	.042 (.101)	.086	.040 (.101)	.083
Health Locus of Control	-.004 (.139)	-.004	-.015 (.144)	-.017	-.018 (.144)	-.020
Education Category	.701 (.274)	.495*	.940 (.291)	.663*	.891 (.299)	.629*
Age Category	-.024 (.277)	-.019	-.203 (.301)	-.157	-.170 (.306)	-.131
Race Category	-.583 (.351)	-.273	-.835 (.364)	-.392*	-.742 (.383)	-.348
Block 2						
Condition			-.193 (.299)	-.108	1.509 (2.074)	.848
Sanity (prime addition)			.353 (.198)	.331	.466 (.241)	.437
Block 3						
Condition * Sanity					-.302 (.364)	-.957
	<i>Adj. R</i> ₂ = .220		ΔR ₂ = .279		ΔR ₂ = .270	
	(<i>F</i> (9, 30) = 2.226,		(<i>F</i> (11, 28) = 2.369,		(<i>F</i> (12, 27) = 2.205,	
	<i>p</i> = .049)*		<i>p</i> = .032)*		<i>p</i> = .043)*	

Note: Block 3 *R*₂ = .270, *F*(12, 27) = 2.205, *p* < .05. Coding as follows: Condition (0 = non-extreme, 1 = extreme exemplar), Empathy (centered) (-.843 = low, .250 = high), Sympathy (centered) (low = -.054, high = .760), Need for Cognition (centered) (low = -.255, high = .168), Need for Orientation (centered) (low = -.168, high = .248), Health Locus of Control (centered) (internal = -.315, external = .278), Depression (centered) (low = -.248, high = .153), Age Category (1 = 18-22, 2 = 23-31, 3 = 32-36), Sanity (centered) (low = -.029, high = .961). Dependent variable is Assessment of Wellness Traits (centered) to answer Hypothesis 2 and Hypothesis 2a. **p* < .05, ***p* < .001 (*n* = 40).

Table 12
Regression Analysis for Variables Predicting Stability Traits (10) of Target Character

Independent Variable	Model Statistics					
	Model 1		Model 2		Model 3	
	<i>B (SE B)</i>	β	<i>B (SE B)</i>	β	<i>B (SE B)</i>	β
Block 1						
Sympathy	.294 (.181)	.315	.176 (.164)	.189	.187 (.155)	.201
Empathy	-.079 (.229)	-.073	-.054 (.207)	-.050	-.197 (.208)	-.183
Need for Cognition	-.014 (.097)	-.028	-.031 (.084)	-.062	-.011 (.081)	-.021
Depression	-.033 (.091)	-.067	-.018 (.081)	-.036	-.019 (.076)	-.039
Need for Orientation	.141 (.081)	.318	.000 (.084)	.000	-.004 (.079)	-.008
Health Locus of Control	.005 (.128)	.007	.006 (.119)	.007	.000 (.113)	.000
Education Category	.672 (.252)	.520*	1.012 (.242)	.783*	.917 (.234)	.710*
Age Category	-.023 (.255)	-.019	-.300 (.250)	-.254	-.235 (.239)	-.199
Race Category	-.506 (.323)	-.261	-.828 (.302)	-.427*	-.648 (.299)	-.334*
Block 2						
Condition			-.172 (.248)	-.106	3.127(1.622)	1.928
Sanity (prime addition)			.511 (.165)	.526*	.730 (.189)	.751*
Block 3						
Condition * Sanity					-.585 (.285)	-2.036*
	<i>Adj. R</i> ₂ = .202		ΔR ₂ = .400		ΔR ₂ = .462	
	(<i>F</i> (9, 30) = 2.098,		(<i>F</i> (11, 28) = 3.362,		(<i>F</i> (12, 27) = 3.789,	
	<i>p</i> = .062)		<i>p</i> = .005)*		<i>p</i> = .002)*	

Note: Block 3 $R^2 = .462$, $F(12, 27) = 2.205$, $p < .05$. Coding as follows: Condition (0 = non-extreme, 1 = extreme exemplar), Empathy (centered) (-.625 = low, .230 = high), Sympathy (centered) (low = -.131, high = .506, Need for Cognition (centered) (low = -.176, high = .155), Need for Orientation (centered) (low = -.166, high = .159), Health Locus of Control (centered) (internal = -.232, external = .232), Depression (centered) (low = -.176, high = .137, Age Category (1 = 18-22, 2 = 23-31, 3 = 32-36), Sanity (centered) (low = -.343, high = 1.118). Dependent variable is Assessment of Stability Traits (centered) to answer Hypothesis 2 and Hypothesis 2a. * $p < .05$, ** $p < .001$ ($n = 40$).

Table 13
Regression Analysis for Variables Predicting Calmness Traits (10) of Target Character

Independent Variable	Model Statistics					
	Model 1		Model 2		Model 3	
	<i>B (SE B)</i>	β	<i>B (SE B)</i>	β	<i>B (SE B)</i>	β
Block 1						
Sympathy	.513 (.218)	.429*	.437 (.225)	.366	.443 (.228)	.371
Empathy	-.182 (.277)	-.131	-.167 (.286)	-.121	-.239 (.306)	-.173
Need for Cognition	-.113 (.117)	.007	-.125 (.116)	-.193	-.114 (.118)	-.176
Depression	-.135 (.110)	-.212	-.125 (.111)	-.196	-.125 (.112)	-.197
Need for Orientation	.135 (.098)	.237	.043 (.115)	.076	.041 (.116)	.073
Health Locus of Control	.031 (.155)	.030	.030 (.164)	.029	.027 (.166)	.026
Education Category	.877 (.305)	.530*	1.099 (.333)	.664*	1.051 (.343)	.635*
Age Category	-.121 (.308)	-.080	-.300 (.345)	-.198	-.267 (.351)	-.176
Race Category	-.555 (.390)	-.223	-.767 (.416)	-.308	-.676 (.439)	-.272
Block 2						
Condition			-.119 (.342)	-.057	1.545(2.381)	.743
Sanity (prime addition)			.332 (.227)	.266	.442 (.277)	.355
Block 3						
Condition * Sanity					-.295 (.417)	-.801
	<i>Adj. R</i> ₂ = .292		ΔR ₂ = .307		ΔR ₂ = .295	
	(<i>F</i> (9, 30) = 2.785,		(<i>F</i> (11, 28) = 2.572,		(<i>F</i> (12, 27) = 2.357,	
	<i>p</i> = .017) *		<i>p</i> = .021) *		<i>p</i> = .031) *	

Note: Block 3 *R*₂ = .512, *F*(12, 27) = 2.357, *p* < .05. Coding as follows: Condition (0 = non-extreme, 1 = extreme exemplar), Empathy (centered) (-.867 = low, .388 = high), Sympathy (centered) (low = -.024, high = .910), Need for Cognition (centered) (low = -.357, high = .128), Need for Orientation (centered) (low = -.198, high = .280), Health Locus of Control (centered) (internal = -.313, external = .368), Depression (centered) (low = -.355, high = .105), Age Category (1 = 18-22, 2 = 23-31, 3 = 32-36), Sanity (centered) (low = -.126, high = 1.011). Dependent variable is Assessment of Calmness Traits (centered) to answer Hypothesis 2 and Hypothesis 2a. **p* < .05, ***p* < .001 (*n* = 40).

Table 14
Regression Analysis for Variables Predicting Well-being Traits (14) Related to Control

Independent Variable	Model Statistics					
	Model 1		Model 2		Model 3	
	<i>B (SE B)</i>	β	<i>B (SE B)</i>	β	<i>B (SE B)</i>	β
Block 1						
Sympathy	.398 (.206)	.390	.284 (.193)	.279	.283 (.196)	.278
Empathy	-.227 (.261)	-.192	-.217 (.244)	-.184	-.205 (.263)	-.174
Need for Cognition	-.008 (.110)	-.015	-.024 (.099)	-.044	-.026 (.102)	-.047
Depression	-.012 (.104)	-.021	.008 (.095)	.015	-.008 (.097)	.015
Need for Orientation	.153 (.093)	.316	.011 (.099)	.022	.011 (.100)	.023
Health Locus of Control	-.142 (.146)	-.161	-.153 (.140)	-.174	-.153 (.143)	-.173
Education Category	.538 (.287)	.382	.884 (.333)	.664*	.892 (.296)	.632*
Age Category	.036 (.291)	.028	-.230 (.345)	-.198	-.235 (.302)	-.182
Race Category	-.757 (.368)	-.357	-1.110 (.356)	-.523*	-1.125 (.379)	-.530*
Block 2						
Condition			-.246 (.292)	-.139	-.520 (2.051)	-.293
Sanity (prime addition)			.513 (.194)	.483*	.495 (.239)	.466*
Block 3						
Condition * Sanity					-.295 (.417)	-.801
	<i>Adj. R</i> ₂ = .134		ΔR ₂ = .305		ΔR ₂ = .280	
	<i>(F(9, 30) = 1.671,</i>		<i>(F(11, 28) = 2.557,</i>		<i>(F(12, 27) = 2.263,</i>	
	<i>p = .140)</i>		<i>p = .022)*</i>		<i>p = .038)*</i>	

Note: Block 3 $R^2 = .512$, $F(12, 27) = 2.357$, $p < .05$. Coding as follows: Condition (0 = non-extreme, 1 = extreme exemplar), Empathy (centered) (-.746 = low, .355 = high), Sympathy (centered) (low = -.119, high = .686), Need for Cognition (centered) (low = -.235, high = .183), Need for Orientation (centered) (low = -.195, high = .217), Health Locus of Control (centered) (internal = -.446, external = .140), Depression (centered) (low = -.190, high = .206), Age Category (1 = 18-22, 2 = 23-31, 3 = 32-36), Sanity (centered) (low = .005, high = .985). Dependent variable is Assessment of Well-being Traits Related to Control (centered) to answer Hypothesis 2 and Hypothesis 2a. * $p < .05$, ** $p < .001$ ($n = 40$).

Table 15
Regression Analysis for Variables Predicting Well-being (30) Traits of Target Character

Independent Variable	Model Statistics							
	Model 1		Model 2		Model 3		Model 4	
	<i>B (SE B)</i>	β	<i>B (SE B)</i>	β	<i>B (SE B)</i>	β	<i>B (SE B)</i>	β
Block 1								
Sympathy	.424 (.196)	.414*	.417 (.194)	.407*	.318 (.261)	.310	.531 (.236)	.519*
Empathy	-.225 (.249)	-.190	-.192 (.240)	-.162	-.236 (.292)	-.199	-.292 (.262)	-.205
NFC	-.044 (.105)	-.079	-.037 (.099)	-.067	-.030 (.108)	-.054	-.084 (.095)	-.152
Depression	-.062 (.099)	-.113	-.092 (.096)	-.169	-.084 (.113)	-.154	-.135 (.102)	-.247
NFO	.140 (.088)	.287	.302 (.102)	.198	.099 (.113)	.204	.140 (.108)	.288
HLOC	-.004 (.139)	-.004	-.182 (.147)	-.102	.172 (.180)	.194	.103 (.184)	.116
Education	.701 (.274)	.495*	.903 (.286)	.637*	.875 (.352)	.617*	.612 (.379)	.431
Age	-.024 (.277)	-.019	.007 (.311)	.006	.088 (.370)	.068	.364 (.414)	.280
Race	-.583 (.351)	-.273	-.683 (.430)	-.320	-.390 (.607)	-.183	-.469 (.554)	-.220
Block 2								
Condition			-.182 (.303)	-.102	3.525 (2.471)	1.980	22.937 (7.122)	12.884*
Sanity			.302 (.192)	.283	1.290 (.758)	1.209	2.072 (.702)	1.941*
“Healthy” Goal			.073 (.361)	.036	5.892 (4.988)	2.866	11.090 (5.266)	5.395
“Good Mother” Goal			-.616 (.297)	-.346*	-.011 (2.437)	-.006	4.953 (13.932)	2.782
Block 3								
Condition * Sanity					-.449 (.412)	-1.423	-4.060 (1.368)	-12.876*
Condition * Healthy Goal					-1.122 (1.434)	-.618	-20.106 (7.909)	-11.065*
Condition * Good Mother Goal					-.051 (.641)	-.024	-6.143 (5.562)	-2.882
Sanity * Healthy Goal					-.870 (.793)	-2.530	-1.589 (.861)	-4.623
Sanity * Good Mother Goal					.015 (.413)	.050	-.696 (2.449)	-2.305
Healthy Goal * Good Mother Goal					-.818 (.792)	-.450	-4.820 (13.843)	-2.653
Block 4								
Condition * Sanity * Good Mother Goal							.663 (.911)	1.728
Condition * Sanity * Healthy Goal							3.440 (1.482)	11.005*
Condition * Healthy Goal * Good Mother Goal							3.002 (2.645)	1.282
Sanity * Healthy Goal * Good Mother Goal							.463 (2.419)	1.536
Block 5								
Sanity*Healthy Goal*Good Mother Goal*Condition								no results
	$\Delta R^2 = .220$		$\Delta R^2 = .334$		$\Delta R^2 = .252$		$\Delta R^2 = .457$	
	($F(9, 30) = 2.226$,		($F(13, 26) = 2.506$,		($F(19, 20) = 1.691$,		($F(23, 16) = 2.426$,	
	$p = .049$)*		$p = .022$)*		$p = .126$		$p = .036$)*	

Note: Block 4 $R^2 = .457$, $F(23, 16) = 2.426$, $p < .05$. Coding as follows: Condition (0 = non-extreme, 1 = extreme exemplar), Empathy (centered) (-.798 = low, .314 = high), Sympathy (centered) (low = .031, high = 1.031, Need for Cognition (centered) (low = -.286, high = .117), Need for Orientation (centered) (low = -.090, high = .370), Health Locus of Control (centered) (internal = -.287, external = .492), Depression (centered) (low = -.351, high = .082, Age Category (1 = 18-22, 2 = 23-31, 3 = 32-36), Sanity (centered) (low = .584, high = 3.560). Dependent variable is Assessment of Well-being Traits (centered) to answer Hypothesis 2 and Hypothesis 2a. * $p < .05$, ** $p < .001$ ($n = 40$).

Table 16
Regression Analysis for Variables Predicting Stability (10) Traits of Target Character

Independent Variable	Model Statistics							
	Model 1		Model 2		Model 3		Model 4	
	<i>B</i> (<i>SE B</i>)	β	<i>B</i> (<i>SE B</i>)	β	<i>B</i> (<i>SE B</i>)	β	<i>B</i> (<i>SE B</i>)	β
Block 1								
Sympathy	.294 (.181)	.315	.216 (.170)	.232	.193 (.218)	.207	.331 (.230)	.354
Empathy	-.079 (.229)	-.073	-.039 (.210)	-.036	-.206 (.244)	-.191	-.205 (.256)	-.190
NFC	-.014 (.097)	-.028	-.019 (.087)	-.037	.002 (.090)	.004	-.024 (.093)	-.048
Depression	-.033 (.091)	-.067	-.035 (.085)	-.070	-.034 (.095)	-.069	-.067 (.100)	-.135
NFO	.141 (.081)	.318	.019 (.089)	.044	.033 (.094)	.074	.064 (.106)	.145
HLOC	.005 (.128)	.007	.056 (.129)	.069	.095 (.150)	.118	.080 (.179)	.099
Education	.672 (.252)	.520	.977 (.251)	.756*	.928 (.294)	.719*	.723 (.370)	.560
Age	-.023 (.255)	-.019	-.220 (.272)	-.186	-.113 (.309)	-.095	.107 (.404)	.090
Race	-.506 (.323)	-.261	-.683 (.377)	-.352	-.552 (.507)	-.284	-.536 (.540)	-.276
Block 2								
Condition			-.137 (.266)	-.085	4.137 (2.064)	2.551	15.028 (6.952)	9.266*
Sanity			.487 (.168)	.501*	1.153 (.633)	1.186	1.623 (.685)	1.670*
“Healthy” Goal			-.079 (.316)	-.042	3.609 (4.166)	1.927	7.174 (5.141)	3.831
“Good Mother” Goal			-.288 (.260)	-.177	-.715 (2.036)	-.441	6.185 (13.60)	3.813
Block 3								
Condition * Sanity					-.662 (.344)	-2.304	-2.678 (1.335)	-9.324
Condition * Healthy Goal					-.434 (1.198)	-.262	-11.346 (7.720)	-6.854*
Condition * Good Mother Goal					-.131 (.535)	-.067	-4.201 (5.429)	-2.163
Sanity * Healthy Goal					-.562 (.662)	-1.797	-1.080 (.841)	-3.449
Sanity * Good Mother Goal					.144 (.345)	.523	-.988 (2.391)	-3.593
Healthy Goal * Good Mother Goal					-.382 (.661)	-.231	-7.213 (13.513)	-4.357
Block 4								
Condition * Sanity * Good Mother Goal							.375 (.889)	1.074
Condition * Sanity * Healthy Goal							1.970 (1.447)	6.918
Condition * Healthy Goal * Good Mother Goal							2.303 (2.582)	1.079
Sanity * Healthy Goal * Good Mother Goal							1.070 (2.361)	3.893
Block 5								
Sanity * Healthy Goal * Good Mother Goal * Condition								no results
	$\Delta R^2 = .202$		$\Delta R^2 = .385$		$\Delta R^2 = .371$		$\Delta R^2 = .376$	
	($F(9, 30) = 2.098$,		($F(13, 26) = 2.875$,		($F(19, 20) = 2.212$,		($F(23, 16) = 2.023$,	
	$p = .062$)		$p = .011$ *)		$p = .043$ *)		$p = .075$)	

Note: Block 3 $R^2 = .371$, $F(19, 20) = 2.212$, $p < .05$. Coding as follows: Condition (0 = non-extreme, 1 = extreme exemplar), Empathy (centered) (-.715 = low, .302 = high), Sympathy (centered) (low = -.261, high = .647, Need for Cognition (centered) (low = -.186, high = .190), Need for Orientation (centered) (low = -.164, high = .230), Health Locus of Control (centered) (internal = -.219, external = .409), Depression (centered) (low = -.232, high = .163, Age Category (1 = 18-22, 2 = 23-31, 3 = 32-36), Sanity (centered) (low = -.168, high = 8.442). Dependent variable is Assessment of Stability (centered) to answer Hypothesis 2 and Hypothesis 2a. * $p < .05$, ** $p < .001$ ($n = 40$).

Table 17
Regression Analysis for Variables Predicting Calmness Traits (10) of Target Character

Independent Variable	Model Statistics							
	Model 1		Model 2		Model 3		Model 4	
	<i>B (SE B)</i>	β	<i>B (SE B)</i>	β	<i>B (SE B)</i>	β	<i>B (SE B)</i>	β
Block 1								
Sympathy	.513 (.218)	.429	.507 (.220)	.424*	.401 (.293)	.336	.635 (.245)	.531*
Empathy	-.182 (.277)	-.131	-.130 (.272)	-.094	-.188 (.329)	-.136	-.214 (.272)	-.154
NFC	-.113 (.117)	-.175	-.112 (.112)	-.173	-.100 (.121)	-.155	-.167 (.098)	-.258
Depression	-.135 (.110)	-.212	-.185 (.109)	-.290	-.197 (.128)	-.310	-.244 (.106)	-.384*
NFO	.135 (.098)	.237	.116 (.115)	.205	.117 (.127)	.206	.175 (.112)	.309
HLOC	.031 (.155)	.030	.154 (.167)	.149	.253 (.203)	.244	.102 (.191)	.098
Education	.877 (.305)	.530	1.082 (.324)	.653*	1.067 (.397)	.645*	.788 (.392)	.476
Age	-.121 (.305)	-.080	-.023 (.352)	-.015	.104 (.416)	.069	.408 (.429)	.269
Race	-.555 (.390)	-.223	-.703 (.487)	-.282	-.469 (.683)	-.188	-.645 (.574)	-.259
Block 2								
Condition			-.155 (.343)	-.074	4.068 (2.781)	1.957	27.053 (7.382)	13.014*
Sanity			.272 (.217)	.219	1.194 (.853)	.958	2.061 (.728)	1.654*
“Healthy” Goal			.264 (.408)	.110	4.939 (5.614)	2.058	9.445 (5.459)	3.935
“Good Mother” Goal			-.726 (.336)	-.349*	.428 (2.743)	.206	5.712 (14.441)	2.747
Block 3								
Condition * Sanity					-.594 (.464)	-1.612	-4.881 (1.418)	-13.257*
Condition * Healthy Goal					-.866 (1.614)	-.408	-21.549 (8.198)	-10.157*
Condition * Good Mother Goal					-.057 (.722)	-.023	-9.504 (5.765)	-3.818
Sanity * Healthy Goal					-.641 (.892)	-1.598	-1.185 (.893)	-2.954
Sanity * Good Mother Goal					-.054 (.465)	-.153	-.774 (2.538)	-2.197
Healthy Goal * Good Mother Goal					-1.130 (.891)	-.533	-3.387 (14.349)	-1.597
Block 4								
Condition * Sanity * Good Mother Goal							1.239 (.944)	2.766
Condition * Sanity * Healthy Goal							3.741 (1.536)	10.249*
Condition * Healthy Goal * Good Mother Goal							3.302 (2.741)	1.207
Sanity * Healthy Goal * Good Mother Goal							.093 (2.508)	.264
Block 5								
Sanity * Healthy Goal * Good Mother Goal * Condition							no results	
	$\Delta R^2 = .292$		$\Delta R^2 = .375$		$\Delta R^2 = .305$		$\Delta R^2 = .572$	
	($F(9, 30) = 2.785$,		($F(13, 26) = 2.798$,		($F(19, 20) = 1.901$,		($F(23, 16) = 3.266$,	
	$p = .017$)*		$p = .012$)*		$p = .081$		$p = .009$)*	

Note: Block 4 $R^2 = .572$, $F(23, 16) = 3.266$, $p < .05$. Coding as follows: Condition (0 = non-extreme, 1 = extreme exemplar), Empathy (centered) (-.790 = low, .363 = high), Sympathy (centered) (low = .117, high = 1.154, Need for Cognition (centered) (low = -.375, high = .042), Need for Orientation (centered) (low = -.063, high = .414), Health Locus of Control (centered) (internal = -.302, external = .506), Depression (centered) (low = -.469, high = -.020, Age Category (1 = 18-22, 2 = 23-31, 3 = 32-36), Sanity (centered) (low = .518, high = 3.603). Dependent variable is Assessment of Calmness (centered) to answer Hypothesis 2 and Hypothesis 2a. * $p < .05$, ** $p < .001$ ($n = 40$).

Table 18
Regression Analysis for Variables Predicting Well (14) Traits of Target Related to Control

Independent Variable	Model Statistics							
	Model 1		Model 2		Model 3		Model 4	
	<i>B (SE B)</i>	β	<i>B (SE B)</i>	β	<i>B (SE B)</i>	β	<i>B (SE B)</i>	β
Block 1								
Sympathy	.398 (.206)	.390	.340 (.190)	.333	.131 (.215)	.128	.293 (.214)	.287
Empathy	-.227 (.261)	-.192	-.187 (.234)	-.159	.029 (.241)	.024	.005 (.238)	.004
NFC	-.008 (.110)	-.015	-.014 (.097)	-.026	-.055 (.089)	-.100	-.081 (.086)	-.147
Depression	-.012 (.104)	-.021	-.041 (.094)	-.075	-.005 (.094)	-.010	-.039 (.093)	-.072
NFO	.153 (.093)	.316	.071 (.099)	.146	.078 (.093)	.160	.105 (.098)	.216
HLOC	-.142 (.146)	-.161	-.054 (.144)	-.061	.049 (.149)	.056	.070 (.167)	.079
Education	.538 (.287)	.382	.872 (.279)	.618*	.917 (.291)	.630*	.711 (.334)	.504
Age	.036 (.291)	.028	-.005 (.303)	-.004	.071 (.306)	.055	.288 (.375)	.222
Race	-.757 (.368)	-.357	-1.063 (.420)	-.501*	-.630 (.502)	-.297	-.603 (.503)	-.284
Block 2								
Condition			-.277 (.296)	-.156	1.975 (2.043)	1.114	13.029 (6.467)	7.350
Sanity			.465 (.187)	.438*	1.914 (.627)	1.801*	2.504 (.637)	2.356*
“Healthy” Goal			.221 (.352)	.108	8.522 (4.123)	4.163	13.301 (4.782)	6.498*
“Good Mother” Goal			-.586 (.289)	-.331	2.620 (2.015)	1.478	14.745 (12.650)	8.318
Block 3								
Condition * Sanity					-.141 (.341)	-.448	-2.131 (1.242)	-6.788
Condition * Healthy Goal					-1.732 (1.186)	-.957	-13.477 (7.181)	-7.449
Condition * Good Mother Goal					.542 (.530)	.255	-3.794 (5.050)	-1.788
Sanity * Healthy Goal					-1.225 (.655)	-3.581	-1.935 (.782)	-5.654*
Sanity * Good Mother Goal					-.447 (.342)	-1.487	-2.463 (2.224)	-8.192
Healthy Goal * Good Mother Goal					-1.148 (.655)	-.635	-13.959 (12.570)	-7.715
Block 4								
Condition * Sanity * Good Mother Goal							.167 (.827)	.438
Condition * Sanity * Healthy Goal							2.064 (1.346)	6.630
Condition * Healthy Goal * Good Mother Goal							3.811 (2.401)	1.634
Sanity * Healthy Goal * Good Mother Goal							2.078 (2.197)	6.918
Block 5								
Sanity * Healthy Goal * Good Mother Goal * Condition								no results
	$\Delta R^2 = .134$		$\Delta R^2 = .361$		$\Delta R^2 = .484$		$\Delta R^2 = .548$	
	($F(9, 30) = 1.671$,		($F(13, 26) = 2.691$,		($F(19, 20) = 2.928$,		($F(23, 16) = 3.059$,	
	$p = .140$)		$p = .015$ *)		$p = .011$)		$p = .012$ *)	

Note: Block 4 $R^2 = .572$, $F(23, 16) = 3.266$, $p < .05$. Coding as follows: Condition (0 = non-extreme, 1 = extreme exemplar), Empathy (centered) (-.500 = low, .510 = high), Sympathy (centered) (low = -.161, high = .747, Need for Cognition (centered) (low = -.263, high = .102), Need for Orientation (centered) (low = -.104, high = .313), Health Locus of Control (centered) (internal = -.284, external = .424), Depression (centered) (low = -.236, high = .158, Age Category (1 = 18-22, 2 = 23-31, 3 = 32-36), Sanity (centered) (low = 1.153, high = 3.855). Dependent variable is Assessment of Well-being Related to Emotional Control (centered) to answer Hypothesis 2 and Hypothesis 2a. * $p < .05$, ** $p < .001$ ($n = 40$).

Table 19
Regression Analysis for Variables Predicting Posttest Perceptions of Risk of Participants

Independent Variable	Model Statistics					
	Model 1		Model 2		Model 3	
	<i>B</i> (<i>SE B</i>)	β	<i>B</i> (<i>SE B</i>)	β	<i>B</i> (<i>SE B</i>)	β
Block 1						
Sympathy	.088 (.335)	.047	.111 (.327)	.059	.189 (.318)	.100
Empathy	.398 (.489)	.195	-.057 (.485)	-.028	.178 (.488)	.088
Need for Cognition	-.066 (.163)	-.067	.061 (.155)	-.062	.023 (.150)	.023
Depression	-.065 (.198)	-.064	-.132 (.181)	-.130	-.121 (.173)	-.119
Need for Orientation	.289 (.149)	.342	.109 (.185)	.129	.174 (.182)	.206
Health Locus of Control	-.027 (.232)	-.019	-.231 (.228)	-.161	-.253 (.219)	-.177
Pretest Risk	.521 (.184)	.605*	.669 (.177)	-.778*	.639 (.171)	.742*
Education Category	.358 (.655)	.099	.985 (.634)	.272	1.120 (.614)	.310
Age Category	-.448 (.536)	-.174	-.128 (.589)	-.050	-.081 (.566)	-.031
Race Category	.362 (.737)	.080	-.638 (.777)	-.142	-.943 (.769)	-.209
Income Category	.492 (.466)	.246	-.161 (.484)	-.081	-.379 (.484)	-.189
Block 3						
Condition			-1.060 (.514)	-.350	-6.884 (3.713)	-2.276
Sanity (prime addition)			.536 (.343)	.303	.094 (.431)	.054
Block 3						
Condition * Sanity					1.013 (.640)	1.881
	<i>Adj. R</i> ₂ = .503		ΔR ₂ = .607		ΔR ₂ = .639	
	(<i>F</i> (11, 19) = 3.758,		(<i>F</i> (13, 17) = 4.569,		(<i>F</i> (14, 16) = 4.797,	
	<i>p</i> = .006)*		<i>p</i> = .002)*		<i>p</i> = .002)*	

Note: Block 3 $R^2 = .639$, $F(14, 16) = 4.797$, $p < .05$. Coding as follows: Condition (0 = non-extreme, 1 = extreme exemplar), Empathy (centered) (-.856 = low, 1.213 = high), Sympathy (centered) (low = -.484, high = .862, Need for Cognition (centered) (low = -.296, high = .342), Need for Orientation (centered) (low = -.211, high = .559), Health Locus of Control (centered) (internal = -.718, external = .211), Depression (centered) (low = -.488, high = .247, Age Category (1 = 18-22, 2 = 23-31, 3 = 32-36), Sanity (centered) (low = -.820, high = 1.009). Dependent variable is Assessment of Posttest Perception of Risk (centered) to answer Hypothesis 3. * $p < .05$, ** $p < .001$ ($n = 31$).

Table 20
Regression Analysis for Variables Predicting Posttest Perceptions of Risk of Participants

Independent Variable	Model Statistics							
	Model 1		Model 2		Model 3			
	<i>B (SE B)</i>	β	<i>B (SE B)</i>	β	<i>B (SE B)</i>	β		
Block 1								
Sympathy	.388 (.293)	.231	.249 (.309)	.149	.192 (.347)	.115	.191 (.347)	.114
Empathy	-.004 (.439)	-.002	-.044 (.431)	-.021	-.299 (.578)	-.143	-.425 (.592)	-.203
NFC	-.015 (.160)	-.015	-.058 (.158)	-.057	.014 (.172)	.013	.086 (.175)	.084
Depression	-.141 (.189)	-.146	-.067 (.197)	-.070	-.178 (.223)	-.184	-.039 (.235)	-.040
NFO	.208 (.116)	.257	.255 (.132)	.315	.179 (.155)	.221	.209 (.156)	.258
HLOC	.047 (.208)	.033	-.015 (.224)	-.011	.074 (.255)	.051	.057 (.314)	.040
Pretest Risk	.562 (.156)	.650*	.491 (.164)	-.568*	.665 (.218)	.769*	.618 (.229)	.715*
Block 2								
Condition		-.596 (.448)	-.198	.673 (4.604)	.224	-13.865 (12.823)	-4.612	
Sanity		-.029 (.280)	-.017	.464 (1.112)	.268	.159 (1.236)	.092	
“Healthy” Goal		.846 (.471)	.254	5.603 (6.956)	1.685	2.968 (8.542)	.892	
“Good Mother” Goal		.340 (.467)	.113	-1.789 (3.618)	-.593	46.627 (22.622)	15.460	
Block 3								
Condition * Sanity				.280 (.702)	.523	3.092 (2.346)	5.787	
Condition * Healthy Goal				-2.389 (1.860)	-.768	15.650 (13.881)	5.033	
Condition * Good Mother Goal				-1.143 (1.080)	-.332	-14.170 (9.554)	-4.122	
Sanity * Healthy Goal				-.678 (1.087)	-1.229	-.281 (1.364)	-.508*	
Sanity * Good Mother Goal				.554 (.618)	1.092	-7.957 (3.937)	-15.674	
Healthy Goal * Good Mother Goal				-.686 (1.162)	-.226	-47.391 (22.111)	-15.609	
Block 4								
Condition * Sanity * Good Mother Goal						1.032 (1.560)	1.669	
Condition * Sanity * Healthy Goal						-3.405 (2.558)	-6.382	
Condition * Healthy Goal * Good Mother Goal						6.833 (4.506)	1.819	
Sanity * Healthy Goal * Good Mother Goal						8.255 (3.851)	16.523	
Block 5								
Sanity * Healthy Goal * Good Mother Goal * Condition							no results	
	$\Delta R^2 = .412$	$\Delta R^2 = .444$	$\Delta R^2 = .443$	$\Delta R^2 = .477$				
	$(F(7, 27) = 4.406,$	$(F(11, 23) = 3.471,$	$(F(17, 17) = 2.593,$	$(F(21, 13) = 2.477,$				
	$p = .002)^*$	$p = .006)^*$	$p = .029)^*$	$p = .048)^*$				

Note: Block 4 $R^2 = .800$, $F(21, 13) = 2.477$, $p < .05$. Coding as follows: Condition (0 = non-extreme, 1 = extreme exemplar), Empathy (centered) (-1.704 = low, .853 = high), Sympathy (centered) (low = -.559, high = .940), Need for Cognition (centered) (low = -.291, high = .463), Need for Orientation (centered) (low = -.127, high = .546), Health Locus of Control (centered) (internal = -.620, external = .735), Depression (centered) (low = -.547, high = .469), Age Category (1 = 18-22, 2 = 23-31, 3 = 32-36), Sanity (centered) (low = -2.510, high = 2.829). Dependent variable is Assessment of Risk Perception (centered) to answer Hypothesis 3. * $p < .05$, ** $p < .001$ ($n = 35$).

Table 21
Regression Analysis for Variables Predicting Posttest Perceptions of Risk of Participants

Independent Variable	Model Statistics					
	Model 1		Model 2		Model 3	
	<i>B (SE B)</i>	β	<i>B (SE B)</i>	β	<i>B (SE B)</i>	β
Block 1						
Sympathy	.101 (.325)	.054	-.031 (.336)	-.016	-.266 (.325)	-.141
Empathy	.364 (.467)	.179	.507 (.481)	.248	.632 (.443)	.310
Need for Cognition	-.056 (.157)	-.058	-.123 (.164)	-.126	-.146 (.150)	-.149
Need for Orientation	.288 (.146)	.342	.331 (.148)	.392	.309 (.135)	.365*
Health Locus of Control	-.035 (.225)	-.025	.051 (.231)	.035	.235 (.228)	.163
Pretest Risk	.494 (.161)	.573*	.591 (.185)	.686*	.514 (.173)	.597*
Education Category	.340 (.638)	.094	.234 (.642)	.065	.111 (.589)	.031
Age Category	-.465 (.521)	-.181	-.469 (.521)	-.182	-.494 (.475)	-.192
Race Category	.418 (.701)	.093	-.796 (1.072)	-.177	-1.230 (.998)	-.273
Income Category	.516 (.450)	.258	.767 (.491)	.383	.883 (.451)	.441
Block 3						
Depression			-.136 (.198)	-.134	-.838 (.373)	-.826*
“Healthy” Goal			1.073 (.738)	.311	-1.409 (1.335)	-.408
Block 3						
Depression * “Healthy” Goal					.830 (.386)	.993*
	<i>Adj. R</i> ₂ = .525		ΔR ₂ = .530		ΔR ₂ = .609	
	(<i>F</i> (10, 20) = 4.315,		(<i>F</i> (12, 18) = 3.822,		(<i>F</i> (13, 17) = 4.243,	
	<i>p</i> = .003)*		<i>p</i> = .005)*		<i>p</i> = .002)*	

Note: Block 3 $R^2 = .639$, $F(13, 17) = 4.797$, $p < .05$. Coding as follows: Condition (0 = non-extreme, 1 = extreme exemplar), Empathy (centered) (-.302 = low, 1.566 = high), Sympathy (centered) (low = -.951, high = .420), Need for Cognition (centered) (low = -.462, high = .170), Need for Orientation (centered) (low = .023, high = .594), Health Locus of Control (centered) (internal = -.246, external = .715), Age Category (1 = 18-22, 2 = 23-31, 3 = 32-36), and Depression (centered) (low = -1.625, high = -.051). Dependent variable is Assessment of Posttest Perception of Risk (centered) to answer Research Question 1. * $p < .05$, ** $p < .001$ ($n = 31$).

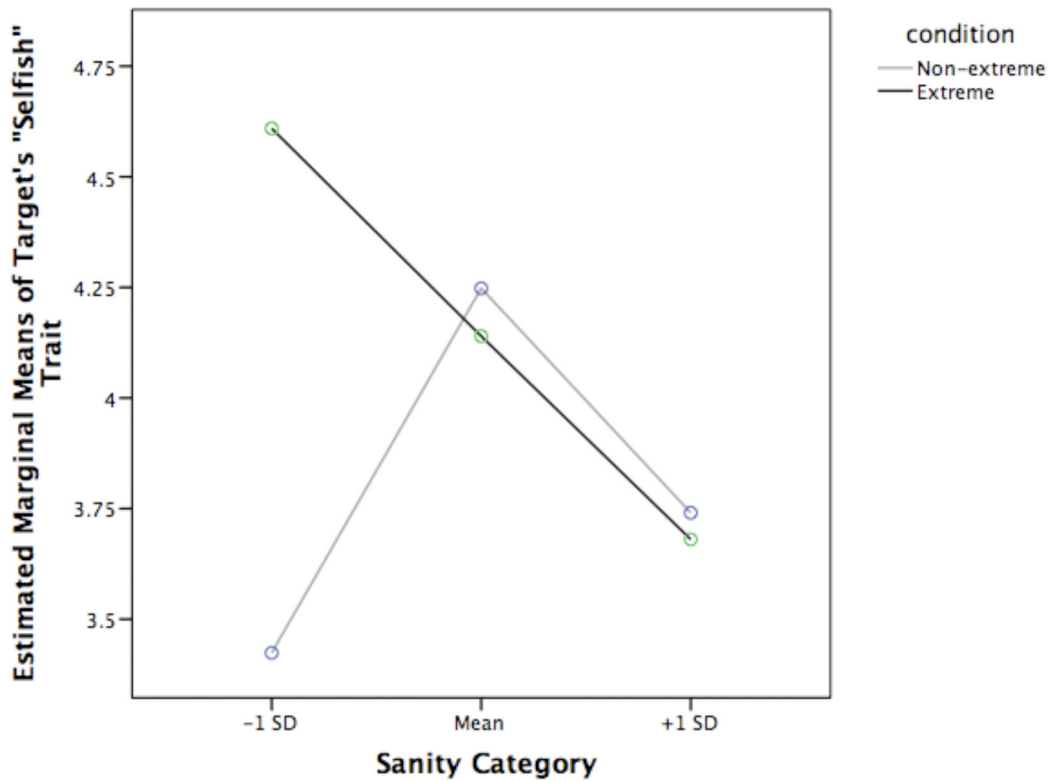
Table 22
Regression Analysis for Variables Predicting Intention of Avoiding Health Care Provider

Independent Variable	Model Statistics							
	Model 1		Model 2		Model 3			
	<i>B (SE B)</i>	β	<i>B (SE B)</i>	β	<i>B (SE B)</i>	β		
Block 1								
Education	-.367 (.603)	-.077	-.339 (.629)	-.071	-.023 (.347)	.115	.254 (.921)	.053
Age	-.035 (.393)	-.011	-.212 (.428)	-.067	-.016 (.578)	-.143	-.183 (.659)	-.058
Race	.413 (.715)	.066	.194 (1.204)	.031	-.326 (.172)	.013	-4.282 (24.253)	-.682
Income	-.309 (.323)	-.127	-.279 (.358)	-.115	-.760 (.223)	-.184	-.797 (.577)	-.327
Video Score	-.554 (.209)	-.291*	-.662 (.250)	-.347*	-.602 (.155)	.221	-.556 (.387)	-.292
Pretest Intention	.734 (.106)	.732*	.766 (.111)	.764*	.772 (.255)	.051*	.814 (.173)	.811*
Block 2								
Condition		.511 (.557)	.126	-6.782 (4.604)	.224	-12.054 (8.520)	-2.981	
Sanity		.485 (.353)	.198	.397 (1.112)	.268	.780 (3.130)	.319	
“Healthy” Goal		-.006 (.755)	-.001	1.037 (6.956)	1.685	6.066 (20.755)	1.273	
“Good Mother” Goal		-.268 (.451)	-.065	.748 (3.618)	-.593	5.166 (30.003)	1.258	
Block 3								
Condition * Sanity				1.197 (.702)	.523	1.630 (3.881)	2.252	
Condition * Healthy Goal								
Condition * Good Mother Goal				.559 (1.220)	.122	6.079 (11.823)	1.327	
Sanity * Healthy Goal				-.171 (1.646)	-1.229	-1.034 (3.365)	-1.305	
Sanity * Good Mother Goal				-.129 (.643)	1.092	-.781 (5.262)	-1.125	
Healthy Goal * Good Mother Goal				-.481 (1.353)	-.226	-8.487 (28.920)	-2.095	
Block 4								
Condition * Sanity * Good Mother Goal						-1.519 (1.748)	-1.843	
Condition * Sanity * Healthy Goal						.553 (4.185)	.768	
Condition * Healthy Goal * Good Mother Goal						2.906 (6.201)	.581	
Sanity * Healthy Goal * Good Mother Goal						1.324 (5.048)	1.973	
Block 5								
Sanity * Healthy Goal * Good Mother Goal * Condition								
	$\Delta R^2 = .651$	$\Delta R^2 = .645$	$\Delta R^2 = .613$	$\Delta R^2 = .538$				
	($F(6, 27) = 11.273$,	($F(10, 23) = 6.999$,	($F(15, 18) = 4.482$,	($F(19, 14) = 3.019$,				
	$p < .001$)*	$p < .001$)*	$p = .002$)*	$p = .020$)*				

Note: Block 2 $R^2 = .645$, $F(10, 23) = 6.999$, $p < .05$. Coding as follows: Condition (0 = non-extreme, 1 = extreme exemplar), Healthy Goal (0 = no goal, 1 = goal activated), Good Mother Goal (0 = no goal, 1 = goal activated), Education (1 = up to some high school, 2 = up to some college, 3 = college or professional degree), Age Category (1 = 18-22, 2 = 23-31, 3 = 32-36), Race (other = 0, white = 1), Income (1 = \$19,999 and below, 2 = \$20,000 to \$39,999, 3 = \$40,000 and above), Video Score (centered) (low = -1.179, high = -.146), Pretest Avoidance Score (centered) (low = .536, high = .996), and Sanity (centered) (low = -.246, high = 1.216). Dependent variable is Likelihood of Postponing Speaking to a Doctor about Depressive Symptoms in Order to Avoid Medication (centered) to answer Research Question 3. * $p < .05$, ** $p < .001$ ($n = 34$).

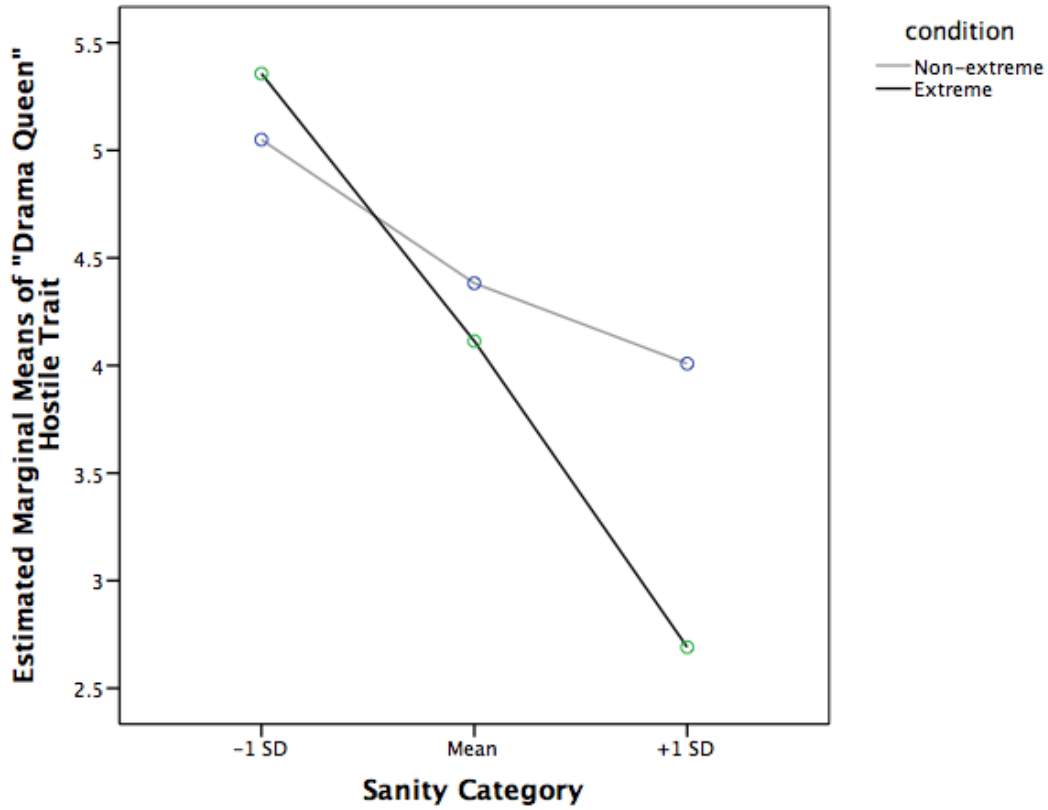
FIGURES

Figure 1: *The Interaction Between Exemplification Condition and Measure of Primed Mental Illness Concept on Evaluation of Target Character Hostile Trait (“Samantha is Selfish”)*



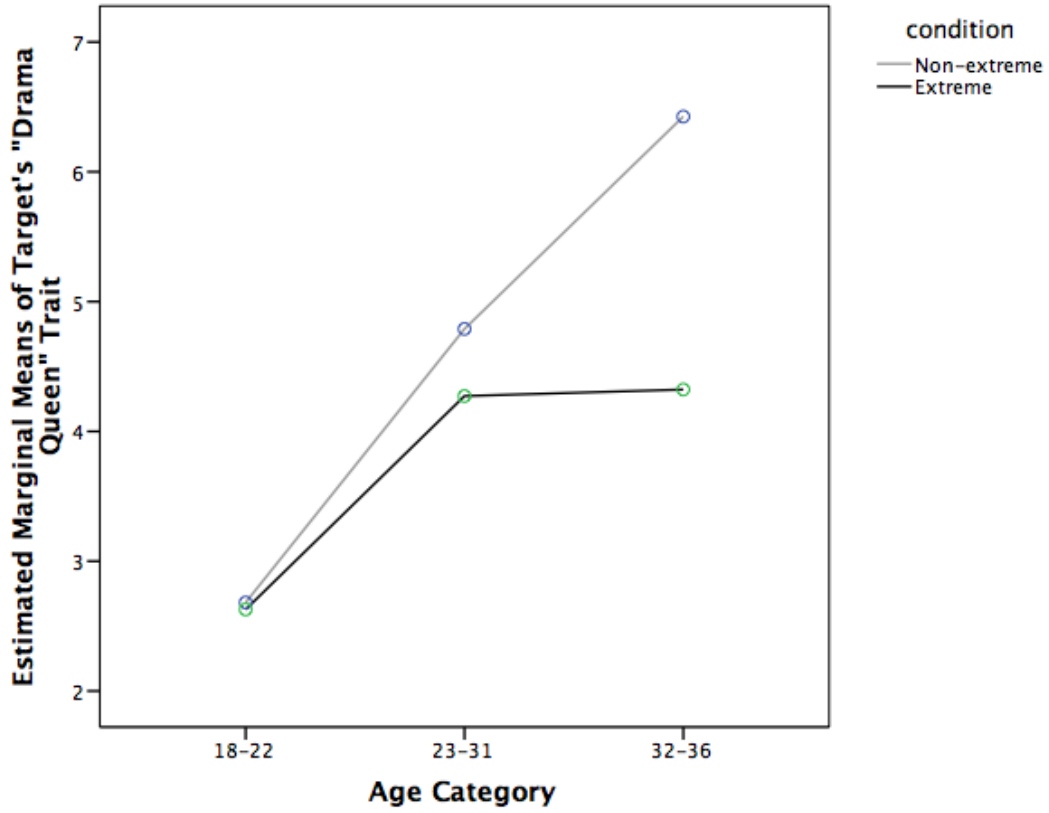
Covariates appearing in the model are evaluated at the following values: educationCategory = 2.7647, incomeCateRecode = 2.3235, ageCategory = 2.0588, RaceRecode_White_Other = .8824, SYMPSCORE = 6.8620, EMPSCORE = 6.2421, NFCScore = 5.8023, DEPRESSCORE = 3.0221, NFOScore = 4.1634, HLOCSCORE = 4.0267

Figure 2: *The Interaction Between Exemplification Condition and Measure of Primed Mental Illness Concept on Evaluation of Target Character Hostile Trait (“Samantha is a Drama Queen”)*



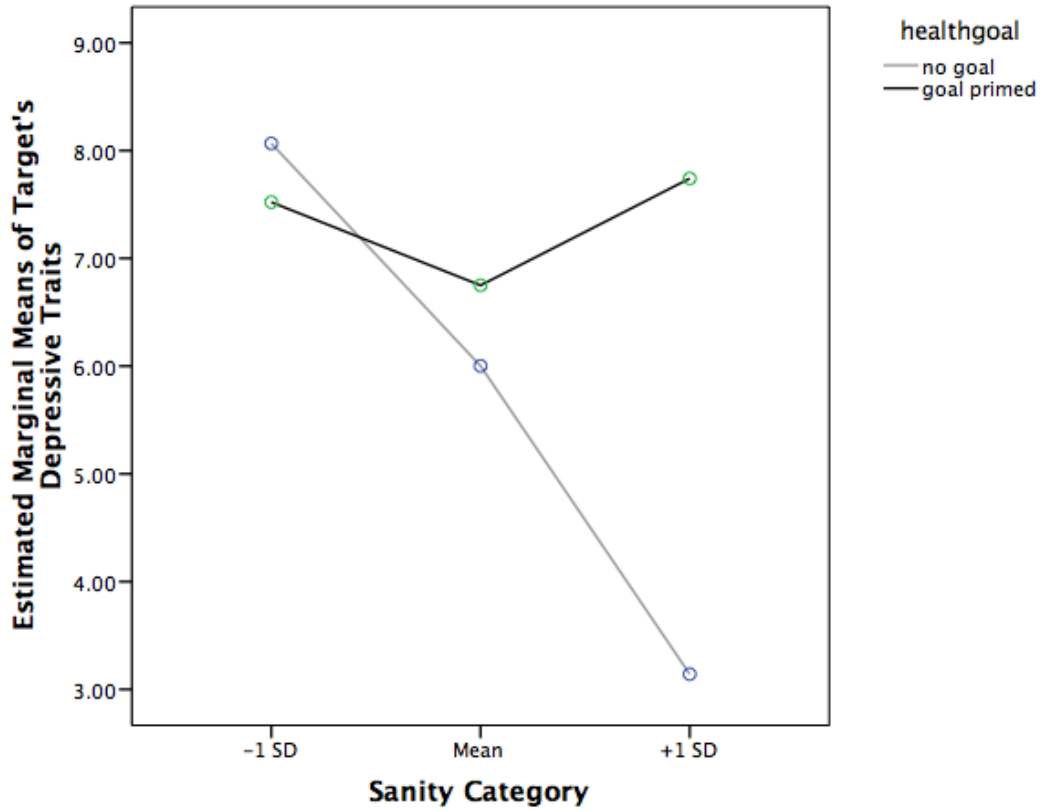
Covariates appearing in the model are evaluated at the following values: educationCategory = 2.7879, incomeCateRecode = 2.3636, ageCategory = 2.0606, RaceRecode_White_Other = .8788, SYMPSCORE = 6.8555, EMPSCORE = 6.2121, NFCSCORE = 5.7593, DEPRESSCORE = 2.9939, NFOSCORE = 4.1212, HLOCSCORE = 4.0165

Figure 3: *The Interaction Between Exemplification Condition and Participant Age on Evaluation of Target Character Hostile Trait (“Samantha is a Drama Queen”)*



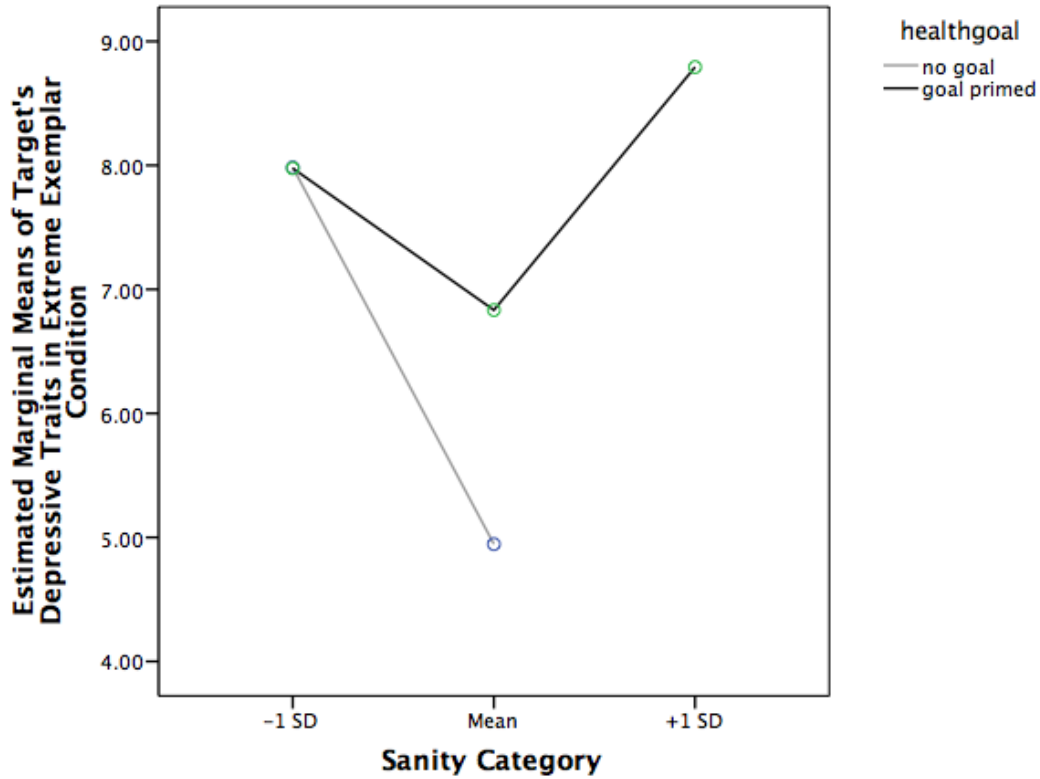
Covariates appearing in the model are evaluated at the following values: SYMPSCORE = 6.8620, EMPSCORE = 6.2421, NFCSCORE = 5.8023, DEPRESSCORE = 3.0221, NFOSCORE = 4.1634, HLOCSCORE = 4.0267, educationCategory = 2.7647, incomeCateRecode = 2.3235, RaceRecode_White_Other = .8824

Figure 4: *The Interaction Between Healthy Goal and Measure of Primed Mental Illness Concept on Evaluation of Target Character Depressive Traits*



Covariates appearing in the model are evaluated at the following values: ageCategory = 1.9250, SYMPSCORE = 6.7519, EMPSCORE = 6.2067, NFCSCORE = 5.6333, DEPRESSCORE = 3.2300, NFOSCORE = 4.3861, HLOCSCORE = 4.1023

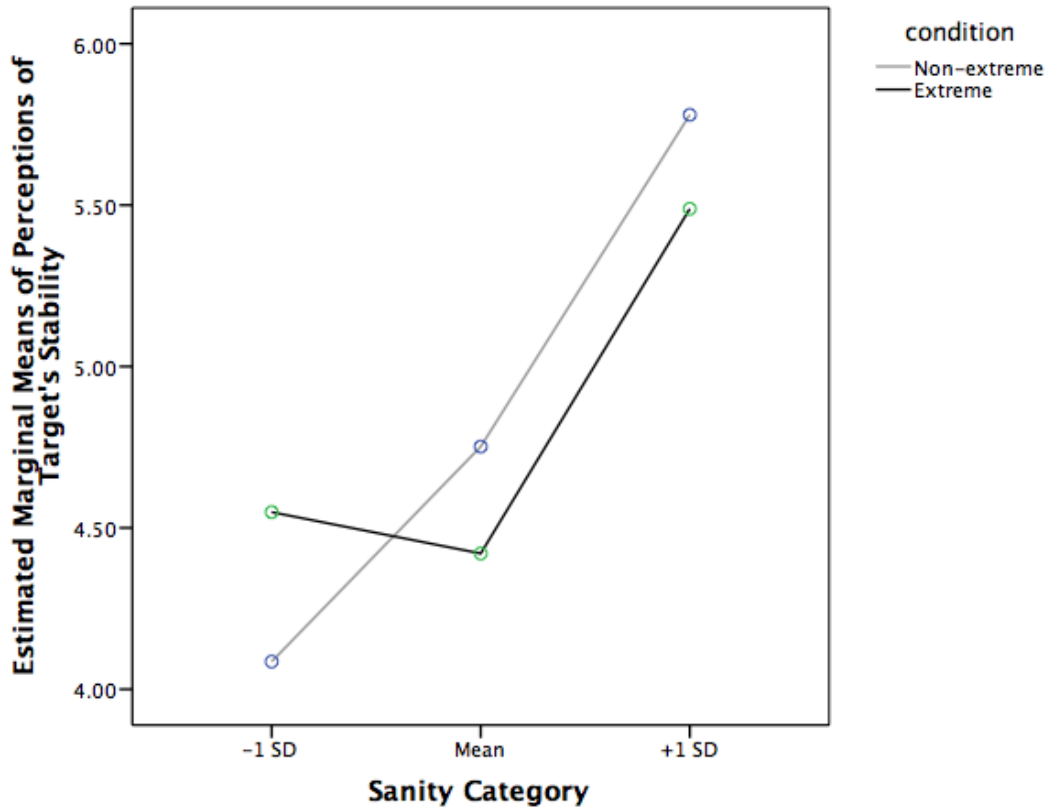
Figure 5: *The Interaction Between Healthy Goal and Measure of Primed Mental Illness Concept on Evaluation of Target Character Depressive Traits in Extreme Exemplar Condition*



Covariates appearing in the model are evaluated at the following values: SYMPSCORE = 6.7519, EMPSCORE = 6.2067, NFCSCORE = 5.6333, DEPRESSCORE = 3.2300, NFOSCORE = 4.3861, HLOCSCORE = 4.1023

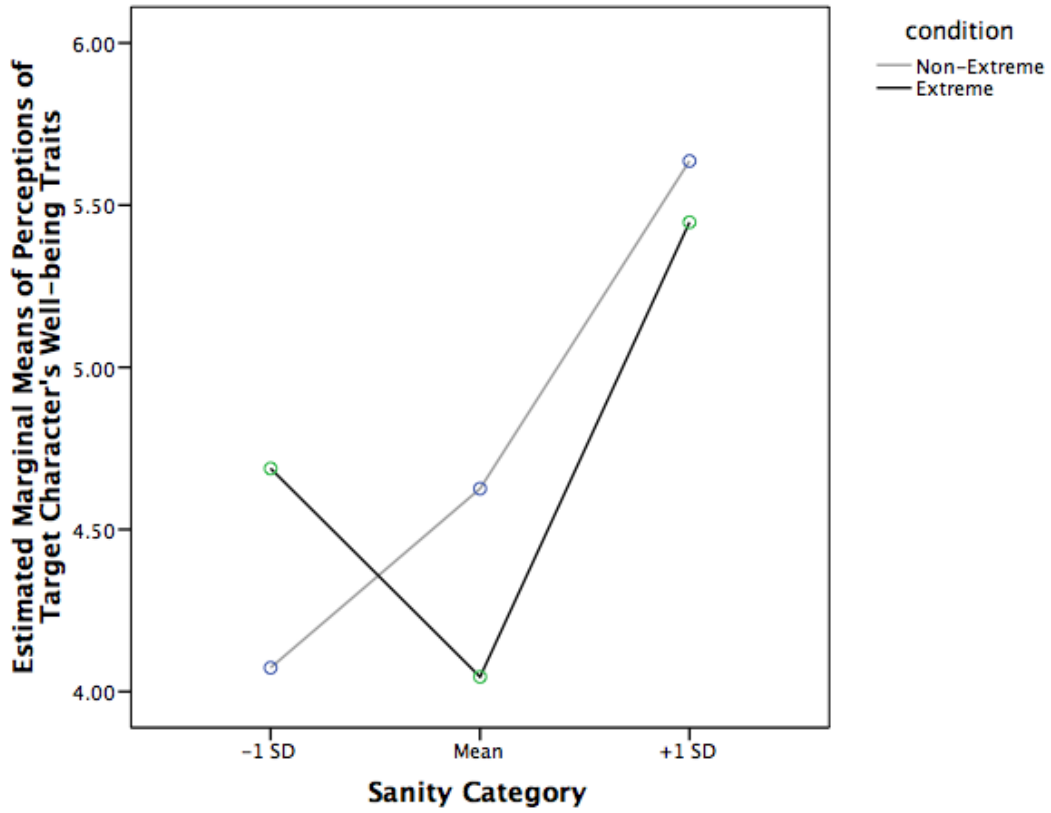
Non-estimable means are not plotted

Figure 6: *The Interaction Between Exemplification Condition and Posttest Measures of Perceptions of Target Character's Stability*



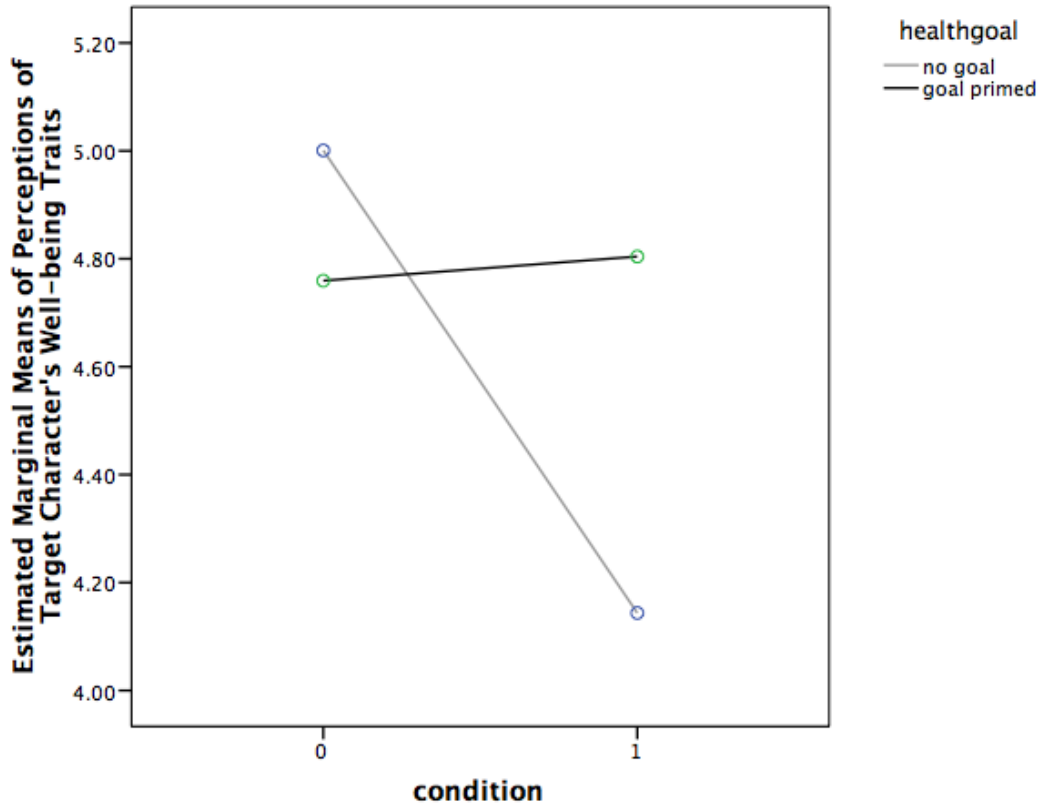
Covariates appearing in the model are evaluated at the following values: SYMPSCORE = 6.7519, EMPSCORE = 6.2067, NFCSCORE = 5.6333, NFOSCORE = 4.3861, HLOCSCORE = 4.1023, educationCategory = 2.5750, ageCategory = 1.9250, RaceRecode_White_Other = .7750

Figure 7: *The Interaction Between Exemplification Condition and Prime Addition and Posttest Measures of Perceptions of Target Character's Well-being Traits*



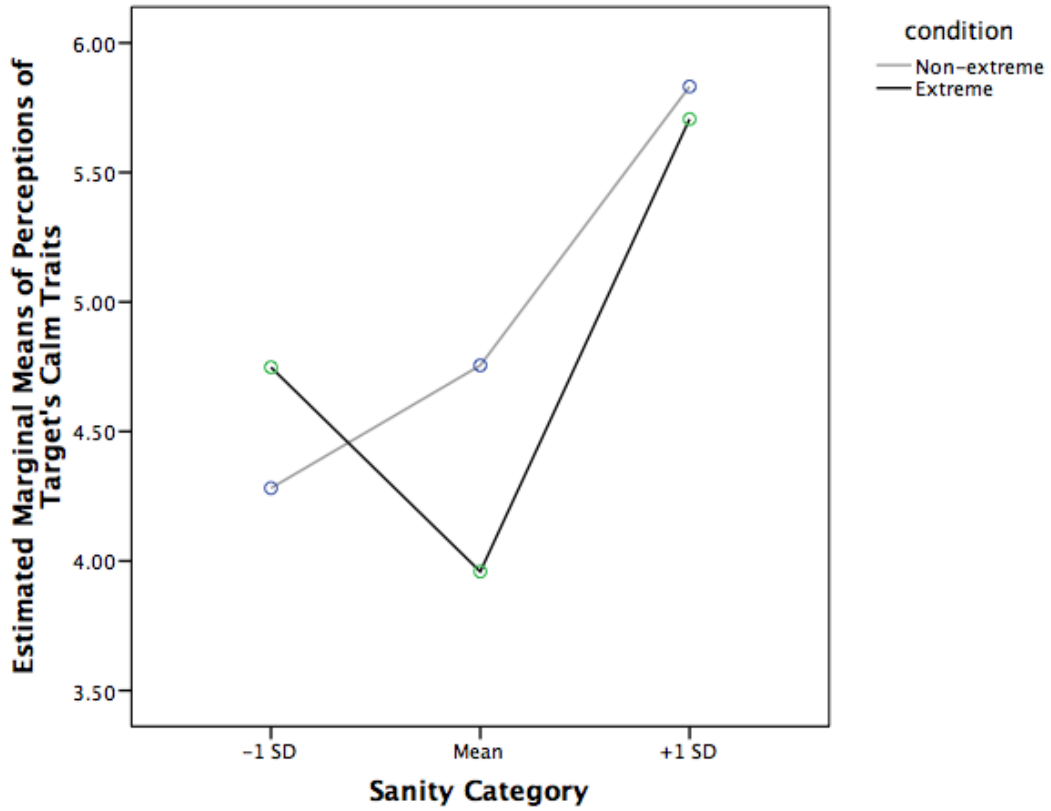
Covariates appearing in the model are evaluated at the following values: SYMPSCORE = 6.7519, EMPSCORE = 6.2067, NFOCSORE = 5.6333, DEPRESSCORE = 3.2300, NFOCSORE = 4.3861, HILOCSCORE = 4.1023, educationCategory = 2.5750, ageCategory = 1.9250, RaceRecode_White_Other = .7750

Figure 8: *The Interaction Between Exemplification Condition and Activated Healthy Goal and Posttest Measures of Perceptions of Target Character's Well-being Traits*



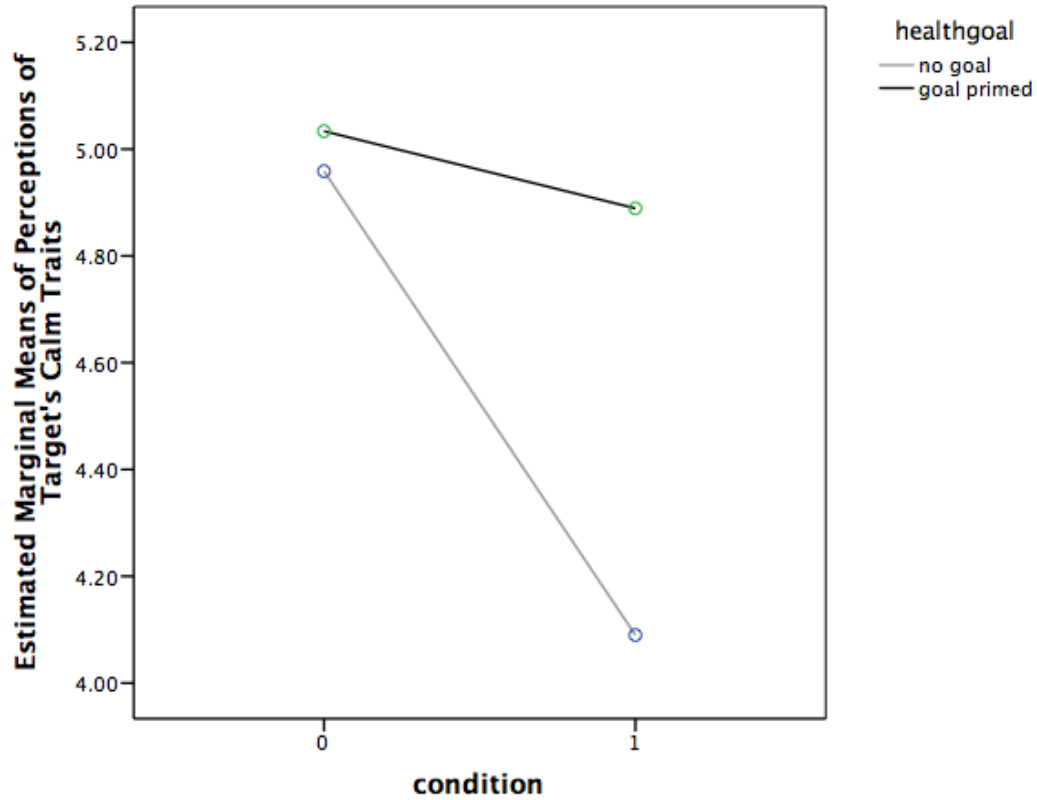
Covariates appearing in the model are evaluated at the following values: SYMPSCORE = 6.7519, EMPSCORE = 6.2067, NFCSCORE = 5.6333, DEPRESSCORE = 3.2300, NFOSCORE = 4.3861, HILOCSCORE = 4.1023, educationCategory = 2.5750, ageCategory = 1.9250, RaceRecode_White_Other = .7750

Figure 9: *The Interaction Between Exemplification Condition and Prime Addition and Posttest Measures of Perceptions of Target Character's Calm Traits*



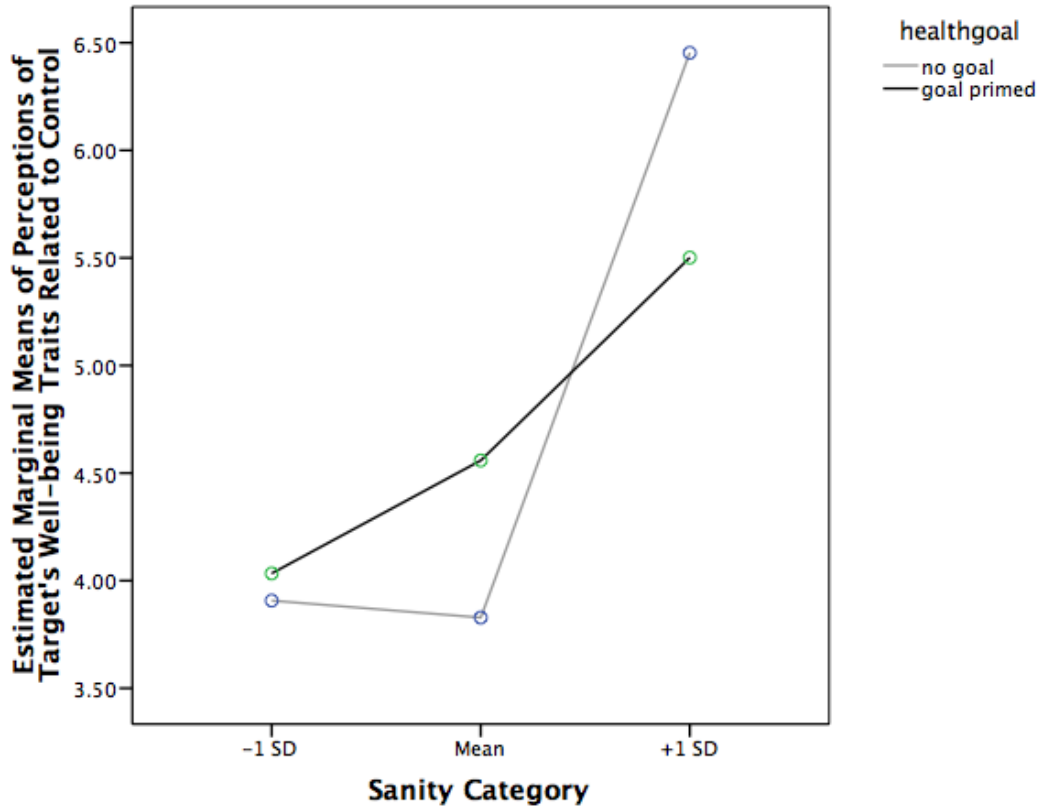
Covariates appearing in the model are evaluated at the following values: SYMPSCORE = 6.7519, EMPSCORE = 6.2067, NFCSCORE = 5.6333, DEPRESSCORE = 3.2300, NFOSCORE = 4.3861, HILOCSCORE = 4.1023, educationCategory = 2.5750, ageCategory = 1.9250, RaceRecode_White_Other = .7750

Figure 10: *The Interaction Between Exemplification Condition and Activated Healthy Goal and Posttest Measures of Perceptions of Target Character's Calm Traits*



Covariates appearing in the model are evaluated at the following values: SYMPSCORE = 6.7519, EMPSCORE = 6.2067, NFCScore = 5.6333, DEPRESSCORE = 3.2300, NFOScore = 4.3861, HLOCSCORE = 4.1023, educationCategory = 2.5750, ageCategory = 1.9250, RaceRecode_White_Other = .7750

Figure 11: *The Interaction Between Activated Healthy Goal and Prime Addition and Posttest Measures of Perceptions of Target's Well-being Traits Related to Control*



Covariates appearing in the model are evaluated at the following values: SYMPSCORE = 6.7519, EMPSCORE = 6.2067, NFCSCORE = 5.6333, NFOSCORE = 4.3861, HLOCSCORE = 4.1023, educationCategory = 2.5750, ageCategory = 1.9250, RaceRecode_White_Other = .7750, DEPRESSCORE = 3.2300

Figure 12: *The Interaction Between Exemplification Condition and Posttest Measures of Perceptions of Risk of Developing Postpartum Disorders*

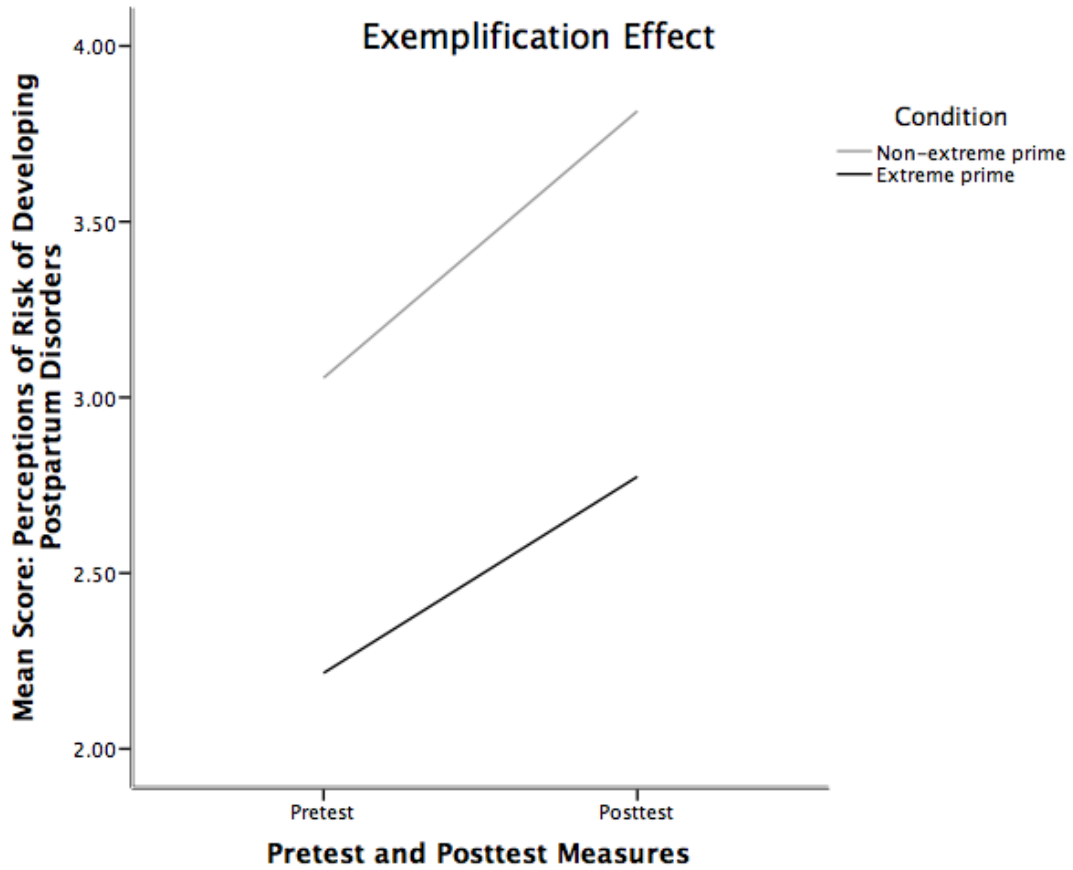
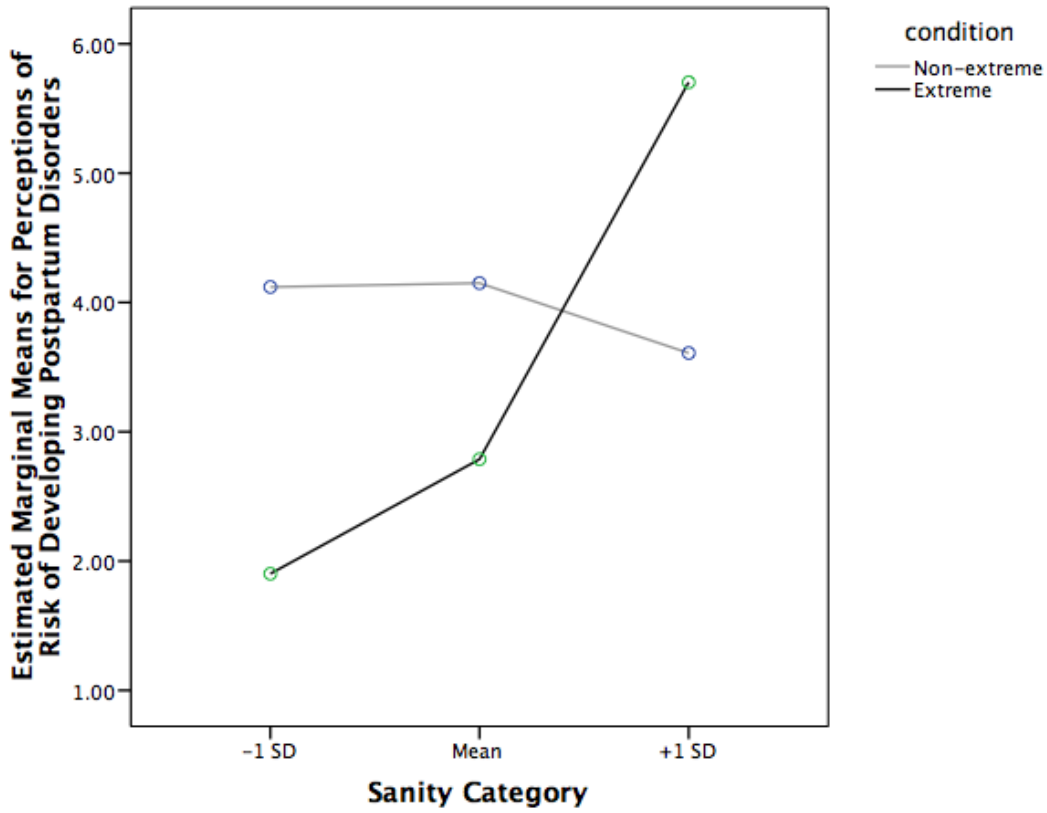


Figure 13: *The Interaction Between Exemplification Condition and Measure of Primed Mental Illness Concept on Posttest Measures of Perceptions of Risk of Developing Postpartum Disorders*



Covariates appearing in the model are evaluated at the following values: EXEMPREScore = 2.5500, SYMPSCORE = 6.8051, EMPSCORE = 6.2231, NFCSCORE = 5.8056, DEPRESSCORE = 2.9217, NFOSCORE = 4.0815, HLOCSCORE = 4.0394, educationCategory = 2.8000, incomeCateRecode = 2.5000, ageCategory = 2.1000, RaceRecode_White_Other = .8667

Figure 14: *The Interaction Between Activated “Healthy” and “Good Mother” Goals and Posttest Measures of Perceptions of Risk of Developing Postpartum Disorders*

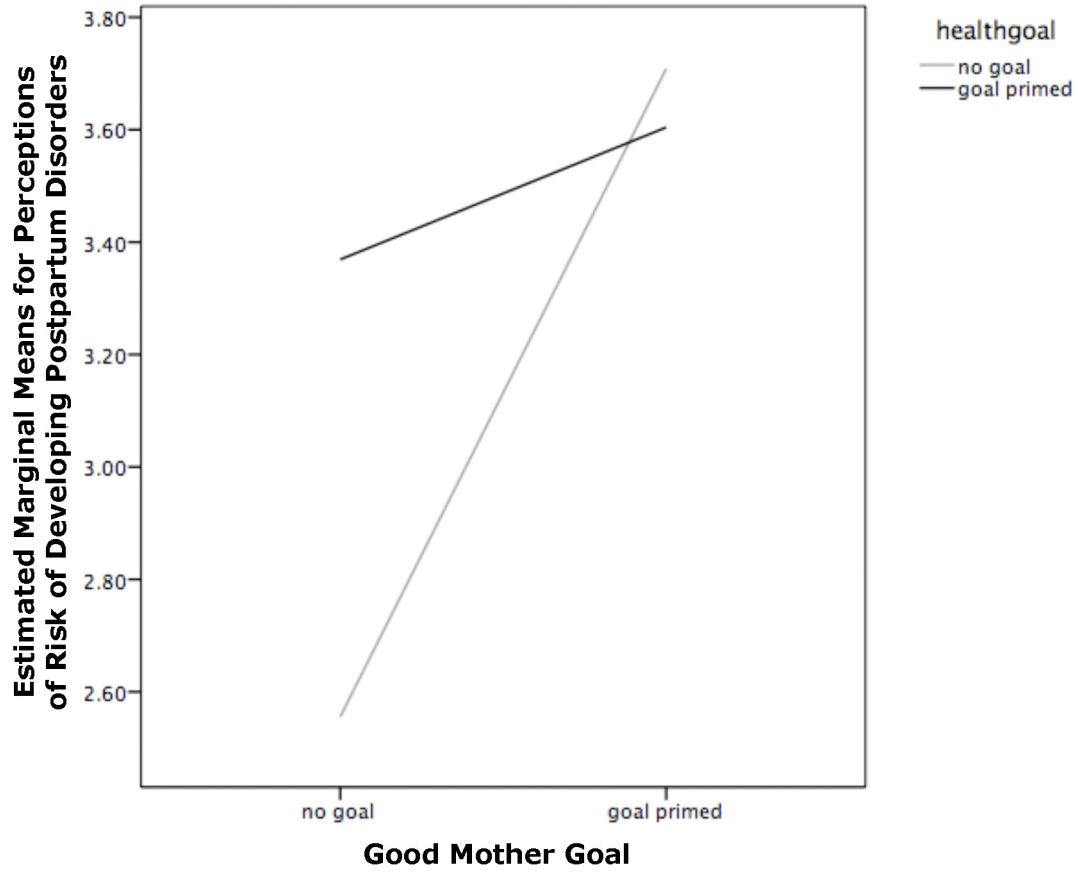
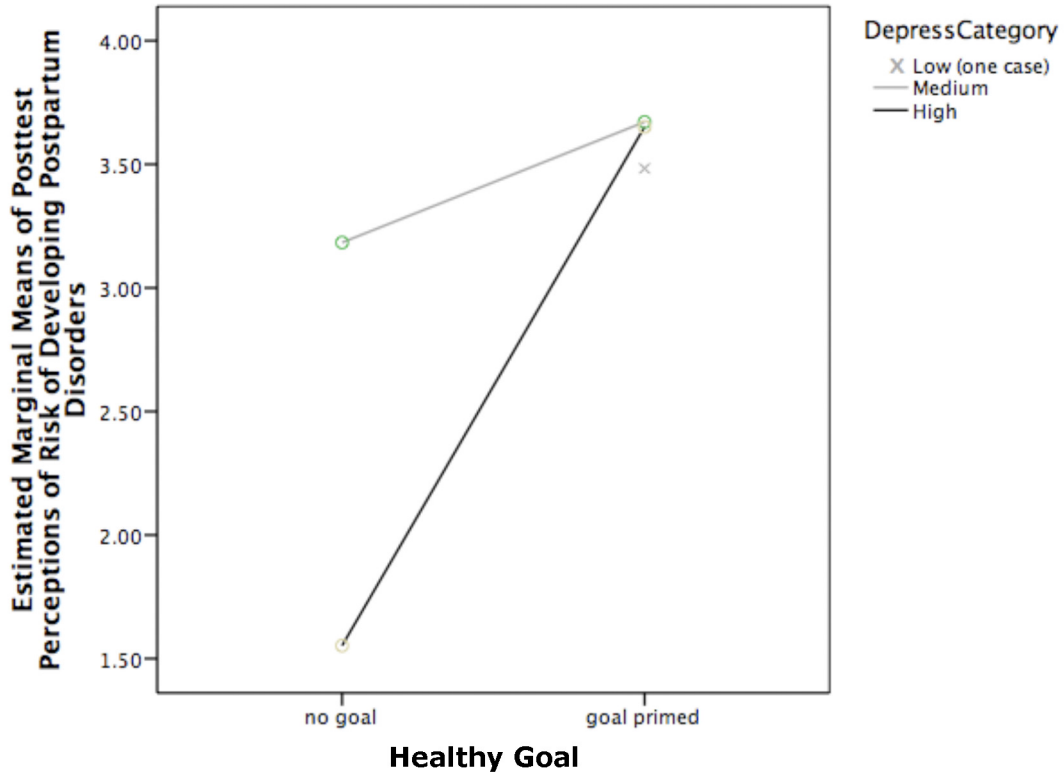


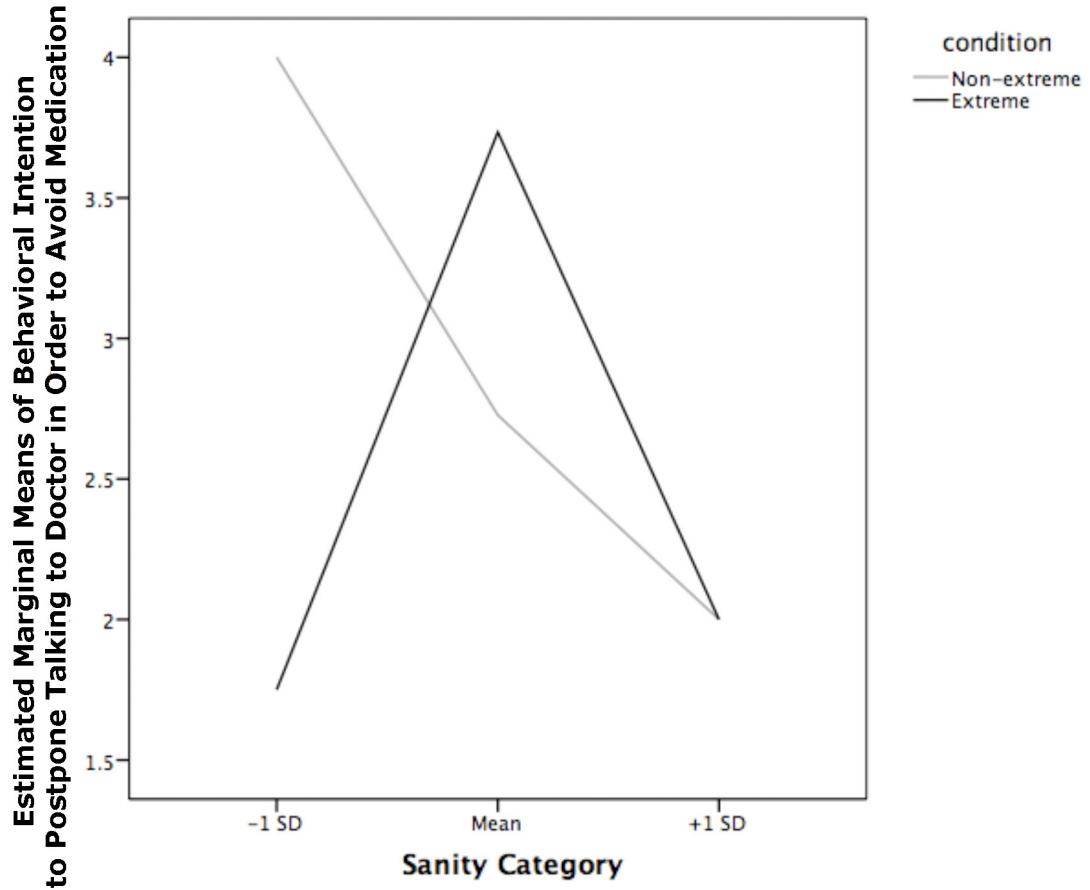
Figure 15: *The Interaction Between Depression Category of Participant and Activated Healthy Goal and Posttest Perceptions of Risk of Developing Postpartum Disorders*



Covariates appearing in the model are evaluated at the following values: EXEMPREScore = 2.6476, SYMPSCORE = 6.6901, EMPSCORE = 6.2352, NFCSCORE = 5.8048, NFOScore = 4.3270, HLOCSCORE = 4.1247

Non-estimable means are not plotted

Figure 16: *The Interaction Between Exemplification Condition and Measure of Primed Mental Illness Concept on Behavioral Intention to Postpone Talking to Doctor in Order to Avoid Medication*



APPENDIX A: PRETEST AND POSTTEST MEASURES

Pretest — Section 1 — Edinburgh Postpartum Depression Scale

(the scale is scored from 0-30; score values are next to each answer)

We would like to know how you are feeling. Please click on the answer that comes closest to how you have felt IN THE PAST 7 DAYS, not just to how you feel today. For example, “I have felt happy: Yes, most of the time” would mean “I have felt happy most of the time during the past week.” Please complete the other questions in the same way. In the past 7 days:

1. I have been able to laugh and see the funny side of things.

- As much as I always could (0)
- Not quite as much now (1)
- Definitely not so much now (2)
- Not at all (3)

2. I have looked forward with enjoyment to things.

- As much as I ever did (0)
- Rather less than I used to (1)
- Definitely less than I used to (2)
- Hardly at all (3)

3. I have blamed myself unnecessarily when things went wrong.

- Yes, most of the time (3)
- Yes, some of the time (1)
- Not very often (2)
- No, never (3)

4. I have been anxious or worried for no good reason.

- No, not at all (0)
- Hardly ever (1)
- Yes, sometimes (2)
- Yes, very often (3)

5. I have felt scared or panicky for no very good reason.

- Yes, quite a lot (3)
- Yes, sometimes (2)
- No, not much (1)
- No, not at all (0)

6. Things have been getting on top of me.
- Yes, most of the time I haven't been able to cope at all (3)
 - Yes, sometimes I haven't been coping as well as usual (2)
 - No, most of the time I have coped quite well (1)
 - No, I have been coping as well as ever (0)

7. I have been so unhappy that I have had difficulty sleeping.

- Yes, most of the time (3)
- Yes, sometimes (2)
- Not very often (1)
- No, not at all (0)

8. I have felt sad or miserable.

- Yes, most of the time (3)
- Yes, sometimes (2)
- Not very often (1)
- No, not at all (0)

9. I have been so unhappy that I have been crying.

- Yes, most of the time (3)
- Yes, sometimes (2)
- Not very often (1)
- No, not at all (0)

10. The thought of harming myself has occurred to me.

- Yes, quite often (3)
- Sometimes (2)
- Hardly ever (1)
- Never (0)

Pretest — Section 2 — Health Locus of Control Measures

Please click on the number that best represents your opinion, where “1” means you “strongly disagree” and “9” means you “strongly agree.”

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

1. If I take care of myself, I can avoid illness.
2. Whenever I get sick it is because of something I've done or not done.
3. Good health is largely a matter of good fortune.
4. No matter what I do, if I am going to get sick I will get sick.

5. Most people do not realize the extent to which their illnesses are controlled by accidental happenings.
6. I can only do what my doctor tells me to do.
7. There are so many strange diseases around that you can never know how or when you might pick one up.
8. When I feel ill, I know it's because I have not been getting the proper exercise or eating right.
9. People who never get sick are just plain lucky.
10. People's ill health results from their own carelessness.
11. I am directly responsible for my health.

Pretest — Section 3 — Empathy and Sympathy Measures

Please click on the number that best represents your opinion, where “1” means you “strongly disagree” and “9” means you “strongly agree.”

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

1. I am concerned about others.
2. I am deeply moved by others' misfortunes.
3. I feel sympathy for those who are worse off than myself.
4. I take an interest in other people's lives.
5. I like to do things for others.
6. I reassure others.
7. I demand a lot from others.
8. I don't fall for sob-stories.
9. I listen to my brain rather than my heart.
10. I tend to dislike soft-hearted people.
11. I try not to think about the needy.
12. I look down on any weakness.
13. I believe people should fend for themselves.
14. I cannot continue to feel okay if others around me are feeling depressed.
15. I don't become upset just because a friend is acting upset.
16. I become nervous if others around me seem nervous.
17. The people around me have a great influence on my moods.
18. Before criticizing someone, I try to imagine how I would feel in their place.

19. I sometimes try to understand my friends better by imagining things from their perspective.
20. I sometimes find it difficult to see things from another's perspective.
21. I try to look at everyone's side of a disagreement before I make a decision.
22. When I am upset with someone, I usually try to put myself in his or her shoes for a while.
23. I am the type of person who is concerned when other people are unhappy.
24. When I see someone being taken advantage of, I feel kind of protective toward them.
25. I often have tender, concerned feelings for people less fortunate than myself.
26. I would describe myself as a pretty soft-hearted person.
27. I sometimes don't feel very sorry for people when they are having problems.
28. Other people's misfortunes do not usually disturb me a great deal.
29. I am often touched by the things that I see happen.
30. I am the type of person who can say the right thing at the right time.
31. Even though I often try to console someone who is feeling bad, I never seem to be able to say the right thing.
32. I usually respond appropriately to the feelings of others.
33. Others think of me as an empathetic person.
34. My friends come to me with their problems because I am a good listener.
35. I really get involved with the feelings and characters in a novel or film.
36. When I am reading an interesting story or novel, I imagine how I would feel if the events were to happen to me.
37. After acting in a play or seeing a play or a movie, I have felt partly as though I was one of the characters.
38. When I watch a good movie, I can easily put myself in the place of the lead character.
39. I become very involved when I watch a movie.

Pretest — Section 4 — Need for Cognition

Instruction: For each of the statements below, please indicate to what extent the statement is characteristic of you. If the statement is extremely uncharacteristic of you (not at all like you) please click a "1"; if the statement is extremely characteristic of you (very much like you) please click a "9". Of course, a statement may be neither extremely uncharacteristic nor extremely characteristic of you; if so, please use the number in the middle of the scale that describes the best fit. Please keep the following scale in mind as you rate each of the statements below: 1 = extremely

uncharacteristic; 3 = somewhat uncharacteristic; 5 = uncertain; 7 = somewhat characteristic; 9 = extremely characteristic.

Extremely Uncharacteristic 1 2 3 4 5 6 7 8 9 Extremely Characteristic

1. I would prefer complex to simple problems.
2. I like to have the responsibility of handling a situation that requires a lot of thinking.
3. Thinking is not my idea of fun.
4. I would rather do something that requires little thought than something that is sure to challenge my thinking abilities.
5. I try to anticipate and avoid situations where there is likely a chance I will have to think in depth about something.
6. I find satisfaction in deliberating hard and for long hours.
7. I only think as hard as I have to.
8. I prefer to think about small, daily projects to long-term ones.
9. I like tasks that require little thought once I've learned them.
10. The idea of relying on thought to make my way to the top appeals to me.
11. I really enjoy a task that involves coming up with new solutions to problems.
12. Learning new ways to think doesn't excite me very much.
13. I prefer my life to be filled with puzzles that I must solve.
14. The notion of thinking abstractly is appealing to me.
15. I would prefer a task that is intellectual, difficult, and important to one that is somewhat important but does not require much thought.
16. I feel relief rather than satisfaction after completing a task that required a lot of mental effort.
17. It's enough for me that something gets the job done; I don't care

how or why it works.

18. I usually end up deliberating about issues even when they do not affect me personally.

Pretest — Section 5 — CES-D Depression Scale

We are interested in learning about your feelings more generally. The following is a list of ways you may have felt or behaved in the past month. Please indicate how often you have felt this way during the past month. Please click on the number that best represents your opinion, where “1” means you “strongly disagree” and “9” means you “strongly agree.”

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

1. In the past month, I was bothered by things that usually don't bother me.
2. In the past month, I did not feel like eating; my appetite was poor.
3. I have felt that I could not shake off the blues even with the help from my family or friends.
4. I felt that I was just as good as other people.
5. I had trouble keeping my mind on what I was doing.
6. I felt depressed.
7. I felt that everything I did was an effort.
8. I felt hopeful about the future.
9. I thought my life had been a failure.
10. I felt fearful.
11. My sleep was restless.
12. I was happy.
13. I talked less than usual.
14. I felt lonely.
15. People were unfriendly.
16. I enjoyed life.
17. I had crying spells.
18. I felt sad.
19. I felt that people disliked me.
20. I could not get “going.”

Pretest — Section 6 — Need for Orientation

Please think about the media coverage on the issue of postpartum depression. The following statements deal with what you generally expect from media coverage on postpartum depression. Please click on the number that best represents your opinion, where “1” means you “strongly disagree” and “9” means you “strongly agree.”

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

1. I want to be instantly informed about recent developments.
2. It is important for me to observe this issue constantly.
3. I would like to hear something about the issue every day.
4. I want to know many different sides about that topic.
5. I would like to be thoroughly informed about specific details.
6. For this topic, I expect detailed background information.
7. I attach great importance to commentaries on this topic.
8. It is interesting to see how several journalists comment on that issue.
9. Whenever appropriate, journalists should state their opinions.

Pretest — Section 7 — Baseline Measures for Persuasive Effect of Stimulus Video

Please click on the number that best represents your opinion, where “1” means you “strongly disagree” and “9” means you “strongly agree.” (“10” means you don’t know what it is).

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

1. I feel vulnerable to possibly experiencing the “BABY BLUES” after giving birth.
2. I feel vulnerable to possibly experiencing POSTPARTUM DEPRESSION after giving birth.
3. I feel vulnerable to possibly experiencing POSTPARTUM PSYCHOSIS after giving birth.
4. I think it’s likely that I will experience “BABY BLUES” after giving birth.
5. I think it’s likely that I will experience POSTPARTUM DEPRESSION after giving birth.
6. I think it’s likely that I will experience POSTPARTUM PSYCHOSIS after giving birth.
7. I would feel empowered to talk to my doctor if I was experiencing depressive symptoms after the birth of my baby.

8. If I was experiencing depressive symptoms after giving birth, I would postpone telling my doctor so I could avoid medication.
9. I feel that my doctor would recommend medication to treat my depressive symptoms.
10. If I was experiencing depressive symptoms after giving birth, I would manage my symptoms by exercising more.
11. If I was experiencing depressive symptoms after giving birth, I would manage my symptoms by seeking counseling and/or a support group.
12. If I was experiencing depressive symptoms after giving birth, I would manage my symptoms by talking to my friends?
13. If I was experiencing depressive symptoms after giving birth, I would manage my symptoms by talking to my partner. (N/A)
14. If I was experiencing depressive symptoms after giving birth, I would manage my symptoms by by talking to a parent(s). (N/A)
15. If I was experiencing depressive symptoms after giving birth, I would manage my symptoms by seeking out an Internet support group? (N/A)

POSTTEST — Section 1 — Sanity Scale

Please provide an overall evaluation of the woman featured in the video clip you have just viewed by clicking the number that best represents your opinion, where “1” means you “strongly disagree” that the term describes “Samantha” and “9” means you “strongly agree” that the term describes “Samantha.”

“Samantha,” the woman featured in the health communication video, is:

	Strongly Disagree								Strongly Agree	
Competent	1	2	3	4	5	6	7	8	9	
Loving	1	2	3	4	5	6	7	8	9	
Sane	1	2	3	4	5	6	7	8	9	
Careful	1	2	3	4	5	6	7	8	9	
Honest	1	2	3	4	5	6	7	8	9	
Trustworthy	1	2	3	4	5	6	7	8	9	
Responsible	1	2	3	4	5	6	7	8	9	
Reliable	1	2	3	4	5	6	7	8	9	
Safe	1	2	3	4	5	6	7	8	9	
Nurturing	1	2	3	4	5	6	7	8	9	
Hopeful	1	2	3	4	5	6	7	8	9	
Stable	1	2	3	4	5	6	7	8	9	
Friendly	1	2	3	4	5	6	7	8	9	
Expressive	1	2	3	4	5	6	7	8	9	

Posttest — Section 2 — Trait Measures for Overall Well-being, Depression and Hostility

Please provide an overall evaluation of the woman featured in the video clip you have just viewed by clicking the number that best represents your opinion, where “1” means you “strongly disagree” that the term describes “Samantha” and “9” means you “strongly agree” that the term describes “Samantha.”

“Samantha,” the woman featured in the health communication video...

	Strongly Disagree					Strongly Agree				
	1	2	3	4	5	6	7	8	9	
1. Seldom gets mad.	1	2	3	4	5	6	7	8	9	
2. Is not easily bothered by things.	1	2	3	4	5	6	7	8	9	
3. Is not easily frustrated.	1	2	3	4	5	6	7	8	9	
4. Seldom takes offense.	1	2	3	4	5	6	7	8	9	
5. Keeps her cool.	1	2	3	4	5	6	7	8	9	
6. Gets stressed out easily.	1	2	3	4	5	6	7	8	9	
7. Gets upset easily.	1	2	3	4	5	6	7	8	9	
8. Is easily disturbed.	1	2	3	4	5	6	7	8	9	
9. Changes her mood a lot.	1	2	3	4	5	6	7	8	9	
10. Gets caught up in her problems.	1	2	3	4	5	6	7	8	9	
11. Seldom feels blue.	1	2	3	4	5	6	7	8	9	
12. Feels comfortable with herself.	1	2	3	4	5	6	7	8	9	
13. Adapts easily to new situations.	1	2	3	4	5	6	7	8	9	
14. Looks at the bright side of life.	1	2	3	4	5	6	7	8	9	
15. Is sure of her ground.	1	2	3	4	5	6	7	8	9	
16. Often feels blue.	1	2	3	4	5	6	7	8	9	
17. Worries about things.	1	2	3	4	5	6	7	8	9	
18. Feels threatened easily.	1	2	3	4	5	6	7	8	9	
19. Dislikes herself.	1	2	3	4	5	6	7	8	9	
20. Is filled with doubts about things.	1	2	3	4	5	6	7	8	9	

21. Rarely gets irritated.	1	2	3	4	5	6	7	8	9
22. Is not easily annoyed.	1	2	3	4	5	6	7	8	9
23. Takes things as they come.	1	2	3	4	5	6	7	8	9
24. Accepts people as they are.	1	2	3	4	5	6	7	8	9
25. Gets angry easily.	1	2	3	4	5	6	7	8	9
26. Is often in a bad mood.	1	2	3	4	5	6	7	8	9
27. Gets furious.	1	2	3	4	5	6	7	8	9
28. Snaps at people.	1	2	3	4	5	6	7	8	9
29. Loses her temper.	1	2	3	4	5	6	7	8	9
30. Has days when she is mad at the world.	1	2	3	4	5	6	7	8	9
31. Is selfish.	1	2	3	4	5	6	7	8	9
32. Is a drama queen.	1	2	3	4	5	6	7	8	9
33. Is depressed.	1	2	3	4	5	6	7	8	9
34. Is overwhelmed.	1	2	3	4	5	6	7	8	9

Posttest — Section 3: Video Evaluation Measures Derived from Sundar & Kalyanaraman

Please provide an overall evaluation of the health communication video you have just viewed by circling the number that best represents your opinion, where “1” means you “strongly disagree” that the term describes the video and “9” means you “strongly agree” that the term describes the video.

The health communication video you have just viewed was:

	Strongly Disagree								Strongly Agree	
Appealing	1	2	3	4	5	6	7	8	9	
Useful	1	2	3	4	5	6	7	8	9	
Positive	1	2	3	4	5	6	7	8	9	
Good	1	2	3	4	5	6	7	8	9	
Favorable	1	2	3	4	5	6	7	8	9	

Attractive	1	2	3	4	5	6	7	8	9
Exciting	1	2	3	4	5	6	7	8	9
Pleasant	1	2	3	4	5	6	7	8	9
Likeable	1	2	3	4	5	6	7	8	9
High Quality	1	2	3	4	5	6	7	8	9
Interesting	1	2	3	4	5	6	7	8	9
Sophisticated	1	2	3	4	5	6	7	8	9
Informative	1	2	3	4	5	6	7	8	9
I would recommend to a friend	1	2	3	4	5	6	7	8	9

Posttest — Section 4 — Measures of Involvement and Behavioral Intentions

Please click on the number that best represents your opinion, where “1” means you “strongly disagree” and “9” means you “strongly agree.”

1. I am not worried about postpartum depression.
2. I am very familiar with the content of the health communication video I just saw.
3. I am very interested in topics related to the health of new mothers.
4. I am very concerned about postpartum depression.
5. Postpartum depression will have a direct effect on me.
6. Postpartum depression is a very important issue to me.
7. I feel vulnerable to possibly experiencing the “BABY BLUES” after giving birth.
8. I feel vulnerable to possibly experiencing POSTPARTUM DEPRESSION after giving birth.
9. I feel vulnerable to possibly experiencing POSTPARTUM PSYCHOSIS after giving birth.
10. I think it’s likely that I will experience “BABY BLUES” after giving birth.
11. I think it’s likely that I will experience POSTPARTUM DEPRESSION after giving birth.

12. I think it's likely that I will experience POSTPARTUM PSYCHOSIS after giving birth.
13. I would feel empowered to talk to my doctor if I was experiencing depressive symptoms after the birth of my baby.
14. If I was experiencing depressive symptoms after giving birth, I would postpone telling my doctor so I could avoid medication.
15. I feel that my doctor would recommend medication to treat my depressive symptoms.
16. If I was experiencing depressive symptoms after giving birth, I would manage my symptoms by exercising more.
17. If I was experiencing depressive symptoms after giving birth, I would manage my symptoms by seeking counseling and/or a support group.
18. If I was experiencing depressive symptoms after giving birth, I would manage my symptoms by talking to my friends.
19. If I was experiencing depressive symptoms after giving birth, I would manage my symptoms by talking to my partner. (N/A)
20. If I was experiencing depressive symptoms after giving birth, I would manage my symptoms by talking to a parent(s). (N/A)
21. If I was experiencing depressive symptoms after giving birth, I would manage my symptoms by seeking out an Internet support group. (N/A)
22. Most people who are important to me think I should take care of my emotional well-being.

Posttest — Section 5 — Demographic Questions

1. Which Internet site do you most turn to for information about health?

2. Do you know anyone who has experienced postpartum depression? Yes No
3. Did that woman share her experience with you? Yes No
Please elaborate: _____
4. You are how old?: _____
5. How many weeks pregnant are you? _____
6. Is this your first pregnancy?
7. If this isn't your first pregnancy, how many children have you given birth to?

8. Are you Hispanic or Latino? (*Choose only one*)
 - a. No, not Hispanic or Latino

- b. Yes, Hispanic or Latino (a person of Mexican, Puerto Rican, Cuban, South or Central American, or other Spanish culture or origin, regardless of race.)
9. What is your race? (*Regardless of how you answered the first question, choose one or more*)
- a. American Indian or Alaska Native (A person having origins in any of the original peoples of North and South America, including Central America, and who maintains tribal affiliation or community attachment.)
 - b. Asian (a person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam)
 - c. Black or African American (a person having origins in any of the black racial groups of Africa)
 - d. Native Hawaiian or Other Pacific Islander (a person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.)
 - e. White (A person having origins in any of the original peoples of Europe, the Middle East, or North Africa)
10. What is your relationship status (*choose one or more*)?
- a. Married
 - b. Separated
 - c. In a relationship
 - d. Single
 - e. Divorced
11. What is your annual household income?
- a. \$100,000 and above
 - b. \$50,000 - \$99,999
 - c. \$40,000 - \$49,999
 - d. \$30,000 - \$39,999
 - e. \$20,000 - \$29,999
 - f. \$10,000 - \$19,999
 - g. \$9,999 and below
12. How many persons live in your household?
13. What is the highest level of education you have completed?
- a. 9th grade or below
 - b. Some high school (10th grade and above), no diploma
 - c. High school graduate
 - d. Some college, no degree
 - e. Associate degree
 - f. Bachelor's degree
 - g. Graduate or professional degree

14. Please write down whatever you remember from the health communication video (spelling and grammar are not important).

15. Please write down what you know about the woman named Andrea Yates.

16. Please write down what you know about the woman named Heather Harrison.

Posttest — Section 6 — Assessment of Implicit Goal Activation

Healthy Goal

Healthy ___ ___ LTHY
Fitness ___ ___ NESS
Medical ___ ___ ICAL
Doctor ___ ___ TOR
Nurse ___ ___ SE
Exercise ___ ___ CISE
Diet ___ ___ ET
Vitamins ___ ___ AMINS
Nutrition ___ ___ ITION
Well ___ ___ LL

Good Mother Goal

Mother ___ ___ THER
Maternity ___ ___ NITY
Nurture ___ ___ TURE
Baby ___ ___ BY
Care ___ ___ RE
Breastfeed ___ ___ EED
Protect ___ ___ TECT
Nursing ___ ___ SING
Love ___ ___ VE
Bonding ___ ___ DING

APPENDIX B: STIMULUS MATERIALS

WEBSITE SCREEN SHOT

Online at <http://www.multigraphy.org/stimulus/postpartumnet/postpartumnet.html>

Postpartum.net

What is perinatal depression?

Perinatal depression refers to depression that can occur while a woman is pregnant as well as depression that occurs after she has given birth. [More>>](#)

Postpartum disorders

8 out of 10 new mothers experience the ["baby blues">>](#)

1 out of 10 new mothers will experience [postpartum depression>>](#)

Only **1 out of 1,000** new mothers will experience the



Texas woman who drowned five children speaks out

On June 20, 2001, after her husband left for work, Andrea Yates was left alone to watch their five children. Her doctor had instructed that she remain supervised around the clock. In the space of an hour, Yates drowned all five of her children.

After six years in prison and two years spent in a minimum security facility, Yates finally speaks out about suffering from **postpartum psychosis** and about what happened that fateful day when she took the lives of her children. [See slideshow >>](#)



Daytona Beach mom shares story of postpartum depression

Heather Harrison is a Daytona Beach mother of two who is helping educate health-care workers and new mothers about perinatal depression, which refers to depressive disorders that occur during pregnancy or after a woman has given birth. Harrison suffered from **postpartum depression** after the birth of her second child.

"I didn't feel like I was being an adequate mother to my children," she said. Now she is helping raise awareness in others. [See slideshow >>](#)

HEALTH COMMUNICATION VIDEO SCREEN SHOT

Online at www.multigraphy.org/stimulus/movieb.html



Participants watched this video clip with a male voiceover and then evaluated the character “Samantha” featured in the presentation. They then watched the entire health communication video.

Video script (voiceover):

Pregnant women and their friends, families, and clinicians expect the postpartum period to be a happy time, characterized by the joyful homecoming of the newborn. Unfortunately, many women will experience short- or long-term mood disturbances postpartum. One such woman is Samantha, a mother of three who was diagnosed with postpartum depression after the birth of her third child. Studies have shown that the effects of untreated postpartum depression have an impact on the development of infants. Postpartum depression often goes unrecognized because many of the usual discomforts that new mothers experience are similar to symptoms of depression. If a new mother experiences the following symptoms, particularly if they persist two weeks after the birth of her baby, she should contact her doctor.

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Notes

¹ 800,000 women will develop one of several types of perinatal mood disorders each year — that’s about 20% of new mothers (WebMD).

² A 2005 study published in *The Lancet*, a major British medical journal, uncovered 93 cases of seizures in infants whose mothers had been taking selective serotonin reuptake inhibitor (SSRI) antidepressants, most commonly Paxil (paroxetine), during pregnancy. However, Ian Holzman, professor of pediatrics and chief of newborn medicine at Mount Sinai School of Medicine, points out that this study is too speculative to be applied to clinical practice but that more longitudinal research is needed.

³ Depressed mothers tend to have a higher risk of premature delivery. In addition, if a woman has prenatal depression, she has a 50 percent chance of developing postpartum mood disorder. After birth, babies have higher levels of stress hormones such as cortisol and norepinephrine and lower levels of mood-enhancing neurotransmitters such as serotonin and dopamine. Babies, like their depressed mothers, experience greater activity in the right frontal lobe, which processes emotional stimuli. These effects often lead to more irritable and less attentive and animated infants (Colino, 2004).

⁴ Some pediatricians recommend avoiding breastfeeding when taking certain medications, like Prozac, as they aren’t tolerated by the infant as well as other medications. Many new mothers worry about taking antidepressants, especially if they are nursing, because medication does get into breast milk. But most experts say such fears are generally exaggerated. “Though nothing is ever 100% risk-free, we do have studies that show no long-term adverse effects from taking antidepressants while breastfeeding,” says Birdie Gunyon Meyer, RN, MA, CLC, coordinator of the Perinatal Mood Disorders Program at Clarian Health in Indianapolis and president of Postpartum Support International (WebMD).

⁵ “Goal-priming effects (a) involve value, (b) involve postattainment decrements in motivation, (c) involve gradients as a function of distance to the goal, (d) are proportional to the product of expectancy and value, (e) involve inhibition of conflicting goals, (f) involve self-control, and (g) are moderated by equifinality and multifinality” (Forster, Liberman, & Friedman).