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Beauty, Sex, and Death: The Role of Mortality Salience in Objectification Processes

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Beauty, Sex, and Death: The Role of Mortality Salience in Objectification Processes

by

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A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
with a concentration in Psychology
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TABLE OF CONTENTS

List of Tables	iv
List of Figures	v
Abstract	vi
Introduction.....	1
Objectification in Review	3
Theorizing on Objectification	3
Evidence of Objectification: Self-Objectification	4
Evidence of Objectification: Objectification of Others	5
Dehumanization in Review.....	8
Two Forms of Objectification.....	12
A Terror Management Account for Objectification	15
The Female Body Problem	15
Men’s Attraction to Women’s Bodies	18
An Existential Perspective for Sexual and Appearance-focused Objectification.....	19
Overview of Research and Hypotheses	21
Study 1.....	23
Method	24
Participants.....	24
Materials	24
Mortality Prime.....	24
Video Prime	25
HN/UH Ratings.....	25
HN/UH Correlations	26
Valence	26
DTA	26
Demographics and Reactions.....	27
Results.....	27
Hypotheses 1 – 4: Effect of MS and Video Prime on Dehumanization	27

HN Ratings.....	27
UH Ratings.....	29
HN/UH Correlations.....	31
Effect of Participant Gender on Dehumanization.....	34
HN/UH Ratings.....	34
HN/UH Correlations.....	34
Effect of Desirability of Dehumanization.....	36
HN/UH Ratings.....	36
HN/UH Correlations.....	37
Effect of Mood Following Mortality Salience.....	38
Hypotheses 5 – 6: Mediation of DTA by Dehumanization.....	38
Discussion.....	39
Target Gender and Objectification.....	40
Participant Gender and Dehumanization of Objectified Targets.....	41
Desirability and Dehumanization.....	42
The Existential Function of Objectification.....	43
Study 2.....	45
Method.....	46
Participants.....	46
Materials and Procedure.....	47
Mortality Prime.....	47
Social Media Profile.....	47
Aggression Paradigm.....	49
Perceptions of Partner.....	50
Demographics.....	51
Results.....	51
Ancillary Analyses.....	51
Discussion.....	56
General Discussion.....	60
Measures of Dehumanization.....	61
Consequences of Objectification.....	63
Conclusions.....	64
References.....	65
Appendices.....	74
Appendix A: Mortality Salience Prime.....	75
Appendix B: PANAS-X.....	77
Appendix C: Objectification Primes.....	78
Appendix D: PANAS.....	79
Appendix E: Dehumanization Scales.....	80
Appendix F: DTA Measure.....	84
Appendix G: Demographics.....	85
Appendix H: Movie and Media Preference Questionnaire and Partner Results.....	86

Appendix I: Aggression Paradigm Video Selection	88
Appendix J: IRB Approval Letter	91

LIST OF TABLES

Table 1:	Means and standard deviations for UH items by profile	55
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LIST OF FIGURES

Figure 1:	Human nature (HN) ratings of Beyoncé by mortality and video prime	28
Figure 2:	Human nature (HN) ratings of Usher as a function of mortality and the video prime	29
Figure 3:	Uniquely human (UH) ratings of Beyoncé by mortality and video prime	30
Figure 4:	Uniquely human (UH) ratings of Usher by mortality and video prime	31
Figure 5:	Dehumanization of Beyoncé by video prime and humanness scale	32
Figure 6:	Dehumanization of Usher by video prime	33
Figure 7:	Male participants' dehumanization of Usher by video prime and scale type	35
Figure 8:	Female participants' dehumanization of Usher by video prime and scale type. ...	36
Figure 9:	Human nature (HN) ratings by mortality and profile	53
Figure 10:	Modern ratings by mortality and profile	56

ABSTRACT

Although much attention has been paid to the consequences of objectification, relatively little research has focused on the question of *why* women are objectified. From a terror management theory perspective, the association of women with (literal) objects strips them of the qualities that are threatening (on account of mortality concerns). Sexualization, however, underscores women's animal nature, and this association is problematic in the management of existential anxiety. The current research builds on a distinction between sexual and appearance-focused objectification to identify the existential mechanisms in the motivation to dehumanize, and subsequently harm, women. Consistent with the hypothesis, participants primed with mortality salience (MS) reported increased mechanistic dehumanization of a female target conforming to the operationalization of appearance-focused objectification, compared to those not primed with MS. Contrary to the hypothesis, MS did not increase animalistic dehumanization of a sexually objectified female target (Study 1). In Study 2, participants believed they were interacting with another person online; MS was expected to increase aggression when the partner was sexualized, and decrease aggression when she was depicted with a focus on appearance. The results did not support this hypothesis; none of the manipulations impacted aggression towards the partner. Ancillary analyses revealed that participants primed with MS attributed fewer human nature traits to the partner in the appearance-focused objectification condition (i.e., they mechanistically dehumanized her), compared to those not primed with MS, thus mirroring the effect found in

Study 1. This research provides further insight into the division between sexual and appearance-focused objectification, and is suggestive of a possible existential mechanism in these processes.

INTRODUCTION

In academic research on objectification, a primary focus has been on perceptions of, and consequences for, objectified women. Yet relatively little attention has been paid to the question of *why* women are objectified. That is, what psychological function does the objectification of women serve such that it is continually perpetuated and even desirable? Terror management theory (TMT; Greenberg, Pyszczynski, & Solomon, 1986) offers an explanatory framework through which to view the phenomenon, suggesting that when women are objectified they are stripped of qualities that are threatening on account of mortality concerns and transformed into (immortal) objects. But, as recent evidence suggests (Morris, Goldenberg & Boyd, 2016), there is a dichotomy in the way women are objectified; specifically, when women are sexualized (i.e., sexual objectification) they are dehumanized by an association with animals, and when they are objectified by a focus on beauty or superficial appearance (i.e., appearance-focused objectification) they are dehumanized by an association with objects. From a TMT perspective, appearance-focused objectification (and the resulting object associations) provides a protective existential function, because objects—in contrast to humans—don't die (cf. Morris, Goldenberg & Heflick, 2014; Morris & Goldenberg, 2015b). But reminders of animal nature are threatening because they underscore the corporeality, and thus mortality, of human existence. Sexual objectification—and its implications for associations of women with animals—should be especially problematic in the management of mortality concerns. Moreover, TMT research has demonstrated that people aggress against those who threaten their worldview because they

undermine the systems of mortality-denying defenses in place (McGregor et al., 1998). Along the same lines, sexualized women may also elicit aggression as a defensive response in the context of salient mortality concerns.

I begin by reviewing theorizing about objectification from both feminist and psychological perspectives. I then discuss empirical evidence from both the self- and other-objectification literature demonstrating that, consistent with theorizing, objectified women are seen as less fully human. To inform an understanding of objectification as dehumanization, I review several modern models for dehumanization and then provide an overview of recent research demonstrating that there is a dichotomy in the way women are objectified and the type of dehumanization that results. Finally, I discuss a TMT account for the objectification of women, and building on the distinction between sexual and appearance-focused objectification, discuss the implications this may have for consequences women face.

OBJECTIFICATION IN REVIEW

Theorizing on Objectification

Philosophers and feminist scholars have long argued that people—especially women—can be objectified. Immanuel Kant (1785/1963) noted objectified people are seen as merely a means to an end and denied their humanity. Martha Nussbaum (1995) suggested that, when objectified, women are treated as if they are interchangeable with other things (fungibility), seen as lacking agency and autonomy, and regarded as if they are permissible to violate. Moreover, objectified women are reduced to their body and appearance, and silenced (i.e., treated as if incapable of speaking; Langton, 2009). Feminist scholar Sandra Bartky (1990) posited that objectification is caused and perpetuated by the excessive preoccupation with women’s appearance. When women are regarded in terms of their appearance, “[their] entire being is identified with the body, a thing which... has been regarded as less inherently human than the mind or personality” (p. 130). This tremendous focus on appearance leads women to treat themselves as objects designated only for the purpose of being adorned and observed, and is evidenced through women’s relentless pursuit of beauty perfection. Other theorizing has suggested that depictions of women in pornography are the catalyst for objectification (MacKinnon, 1993), and pornography reduces women to objects that can be bought and sold (Dworkin, 1997). Though scholars have speculated on the root cause of women’s objectification, they converge on the idea that, at its core, objectification involves seeing and treating a person (usually a woman) as less than human.

Building on the ideas proposed by philosophers and feminist scholars, Fredrickson and Roberts (1997) put forth objectification theory in which they suggested that Western culture is saturated with heterosexuality, and women exist in an environment where they are constantly looked at and evaluated on the basis of their physical appearance. From this perspective, sexual objectification is defined as the separating out of a woman's body, body parts, or sexual functions and regarding them as if they are capable of representing her. Sexual objectification can take on many forms, from evaluation to violence; Fredrickson and Roberts suggest that the most subtle and ubiquitous way is through the male gaze. In response to this ever-present potential for objectification, women come to internalize an outside observer's perspective, "treat[ing] themselves as an object to be looked at and evaluated" (p. 177). *Self-objectification* is characterized by habitual self-monitoring or emphasis on one's external attributes (e.g., physical appearance) at the expense of internal states (e.g., health or energy level), and objectification theory posits a range of mental, physical, and interpersonal consequences women experience as a result of heightened self-objectification.

Evidence for Objectification: Self-Objectification

In a formative test of objectification theory, Fredrickson, Roberts, Noll, Quinn and Twenge (1998) experimentally manipulated self-objectification by having participants either try on a one-piece bathing suit (swimming trunks for men), or a sweater, alone in a dressing room. The results provided support for several important tenants of objectification theory. First, situations that heighten attention to one's own appearance (i.e., wearing a swimsuit) are more likely to trigger self-objectification than others (i.e., wearing a sweater), and importantly, this is only the case for women; wearing swimming trunks did not increase men's state self-objectification. Additionally, heightened self-objectification was associated with several of the

proposed consequences of objectification theory: women in the swimsuit condition reported greater levels of body shame, and this led to restrained eating. Further, wearing the swimsuit also decreased women's performance on a cognitive task, suggesting that self-objectification takes up valuable mental resources. Saguy, Quinn, Dovidio and Prado (2010) demonstrated that heightened self-objectification leads women to reduce their presence in interpersonal interactions. When participants believed they were giving a speech to an opposite-sex partner via closed-circuit television and were being filmed from the neck down (high self-objectification condition), women talked for significantly less time, and felt less comfortable, compared to women who were told they were filmed from the neck up or only having the audio of their speech recorded. This was only the case for female participants; men did not show any differences on speaking time or comfort level between conditions. Other research has indicated that high self-objectification is linked to decrease self-esteem and body satisfaction (Tiggemann, 2001), a lack of intrinsic motivation (Gapinski, Brownell & LaFrance, 2003), decreased movement (Harrison & Fredrickson, 2003), and reduced willingness to participate in collective action (Calogero, 2013) (see Moradi & Huang, 2008 for a review). Although the scope of the consequences of objectification is broad, collectively these findings converge to suggest that, in line with original theorizing, self-objectification leads women to see themselves as having less of the qualities associated with being human (i.e., appetite, having a voice, movement).

Evidence for Objectification: Objectification of Others

Extending this line of research, social psychologists have examined perceptions of objectified others. Consistent with philosophical theorizing and evidence from the self-objectification literature, this research reveals that when objectified, women are denied their humanity. Heflick and colleagues (2009), for example, had participants watch short video clips

of a newscaster (or weather forecaster) and instructed them to either focus on the person's appearance, or their performance in delivering the news. When participants were focused on appearance, female targets were judged to be less competent, warm, and moral (traits considered principle dimensions of humanness; Fiske, Cuddy & Glick, 2007); male targets, on the other hand, suffered no such consequences. Additionally, this effect was replicated with a variety of targets ranging in degree of familiarity, ethnicity, and attractiveness, and both male and female participants dehumanized the objectified female targets (as is the case with most research on the objectification of others). Heflick and Goldenberg (2011) used similar manipulations in a study examining perceptions of then-presidential candidate Sarah Palin, and actress Angelina Jolie. When participants were focused on appearance, both women were denied traits considered essential to human nature, compared to when participants were instructed to focus on "who she is as a person." Further, participants focused on Sarah Palin's appearance were less likely to vote for the McCain/Palin ticket, suggesting that these perceptions may have tangible consequences for women. Gray, Knobe, Sheskin, Bloom, and Feldman-Barrett (2011) examined perceptions of experience (i.e., the ability to feel pain, hunger, desire) and agency (i.e., the capacity to plan and act) and found that sexually objectified targets were perceived as lacking in agency (but actually perceived to have *more* experience). Loughnan and colleagues (2010) demonstrated that objectified targets were denied "mind," and were subject to greater harm (as measured by the number of pain-inducing pills participants would choose to give them). Vaes, Paladino, and Puvia (2011) examined implicit animalistic dehumanization of sexually objectified targets and found evidence that sexualized women were more quickly associated with non-human animal words (*nature, instinct, paw, snout*).

Other research shows that, even at a basic cognitive level, objectified women are perceived less like human beings. Bernard and colleagues (2012) presented participants with images of sexualized or non-sexualized male and female targets either inverted or right side up. Object processing theory states that objects are recognized equally well whether they are upside down or right side up; people, on the other hand, are much more difficult to recognize when they are inverted (Reed, Stone, Bozova, & Tanaka, 2003; Reed, Stone, Grubb, & McGoldrick, 2006). Consistent with this, the researchers found that there was no difference in recognition reaction time for sexualized women between the inverted and right-side-up images; however, for all other images (men and fully clothed women), participants were significantly slower in recognizing the inverted images. Thus, the sexualized women were cognitively processed in a manner similar to objects.

DEHUMANIZATION IN REVIEW

Collectively, the findings from research on both self- and other-objectification indicate that when women are objectified, they are denied their humanness. In order to understand the dehumanization that results from objectification, several frameworks for dehumanization are considered. Although early work on dehumanization focused on its blatant and explicit manifestations, modern frameworks note that dehumanization is often quite subtle. Leyens and colleagues (2001) introduced the concept of *infracumanization* to reflect the subtle dehumanization of others; from this perspective, secondary emotions (e.g., embarrassment) are often reserved for one's ingroup and denied to members of outgroups. Haslam's (2006) dual model of dehumanization builds directly from the infracumanization framework and posits there are two distinct senses of what it means to be human. Human nature reflects the concept of "human essence" (what is essential to being human), and is characterized by emotionality, vitality, and warmth. Human uniqueness reflects qualities that separate humans from other animals and includes characteristics such as civility, rationality, and logic. Research from this perspective suggests that when people are denied one type of humanness or the other, two different forms of dehumanization are implicated. When people are seen as lacking human nature (e.g., business people; Loughnan & Haslam, 2007), they are perceived as cold, superficial, and likened to objects (i.e., *mechanistic dehumanization*). People seen as lacking in uniquely human traits (e.g., artists; Loughnan & Haslam, 2007) are perceived as unrefined, irrational, and likened

to animals (i.e., *animalistic dehumanization*). Empirical research supports this distinction, demonstrating that after participants read about a novel group low in uniquely human traits, they rated the group members as more animal-like; similarly, when participants read that the novel group was low in human nature traits, they perceived group members to be more robot-like (Loughnan, Haslam & Kashima, 2009). Neurological evidence further validates this, demonstrating differential brain activation when participants are presented with social narratives likening people to animals or objects (Jack, Dawson, & Norr, 2013).

In addition to Haslam's (2006) framework, there are other perspectives that support a duality in perceptions of humanness. Gray, Gray and Wegner (2007) suggest that when individuals assess the "mind" of another person, it is on two dimensions: agency and experience. Agency reflects the capacity to plan and act, while experience reflects the capacity to think and feel. In a preliminary study, the researchers asked participants to rate different human and non-human entities on these dimensions; one's ingroup (including the self) is regarded as having high agency and high experience. The concept of God, for example, is perceived as having a high degree of agency, but a low degree of experience. Infants, and certain animals (e.g., dogs) are judged to possess a high level of experience, but a low level of agency. Thus, in the model of mind perception, dehumanization is defined as denying mind to another (though the type of mind that is denied may differ as a function of the target).

In line with these dual dimension models, the stereotype content model (SCM; Fiske, Cuddy, Glick, & Xu, 2002) suggests that social cognition is comprised of two components: warmth and competence. Warmth reflects perceived intent, such as trustworthiness, friendliness and morality. Competence reflects traits related to ability, including intelligence, skill and creativity. The combinations of these dimensions create one ingroup (high competence/high

warmth) and three distinct outgroups. Though Fiske and colleagues' model does not proceed directly from a definition of humanness, it considers dehumanization to be the absence of social cognition, or failure to spontaneously attribute "mind" to another person. Using fMRI methods, Harris and Fiske (2006) showed participants images of people representing each of the four groups, along with object controls (e.g., images of a homeless man and a picture of vomit to represent low competence/low warmth). The researchers examined several areas of the brain critical to social cognition—namely the medial prefrontal cortex (mPFC)—and found that none of the object controls elicited mPFC activation; all of the pictures of humans did elicit mPFC activation, except for those in the low competence/low warmth category. According to Harris and Fiske, this lack of spontaneous social cognition reflects dehumanization, and only the "lowest of the low" are dehumanized.

Although each of these perspectives offers a unique framework for understanding perceptions of others, they converge to support a duality in dimensions of humanness, and the manner in which a person can be dehumanized. Though there is not perfect overlap between the three different models, there are certain parallels that can be drawn. Haslam's (2006) conceptualization of mechanistic dehumanization (i.e., likening a person to an object) is consistent with the SCM (Fiske et al., 2002) notion of reduced competence in conjunction with reduced warmth (c.f. Harris & Fiske, 2006). Though the SCM does not specify perceptions of humans as animal-like, presumably animals are not lacking in warmth, and thus, low competence in conjunction with high warmth would be consistent with Haslam's (2006) conceptualization of animalistic dehumanization. Gray and colleagues (2007) also did not measure perceptions of people as object or animal-like; however, their research suggests that when a person is seen as lacking in agency, but high in experience, they might be perceived in a manner similar to animals

(in the study, certain animals were rated as low agency/high experience). Conversely, people seen as lacking in both agency and experience might be perceived more like objects (in the study, a “sociable robot” was relatively low on both dimensions).

TWO FORMS OF OBJECTIFICATION

Although, for the most part, researchers have not been attuned to the type of humanness being denied as a function of objectification, there is evidence that objectified women are dehumanized both by an association with objects, and by an association with animals. In the series of studies by Heflick et al. (2011), in which participants were instructed to focus on a target's appearance (compared to his/her performance delivering the news), the finding that women were perceived as less competent, in conjunction with reduced perceptions of warmth, is consistent with perceiving women in a manner similar to objects. Moreover, Heflick and Goldenberg (2009) found that, when participants were focused on appearance, women were attributed less human nature (i.e., mechanistically dehumanized); again, this is consistent with dehumanization by object associations (Haslam, 2006). Additionally, there is evidence that objectified women are associated with animals. Most clearly, Vaes et al. (2011) demonstrated that sexualized women were more quickly associated with animal concepts. Further, in the studies by Gray and colleagues (2011), sexualized targets were attributed less agency but *more* experience, compared to non-sexualized targets. On the basis of the mind perception model, low agency in conjunction with high experience is more consistent with perceptions of the target as animal-like, rather than object-like (Gray et al., 2007).

Recently, Morris and Goldenberg (2015a) hypothesized that these two dehumanizing responses are actually a function of two distinct forms of objectification. Though researchers have a myriad of ways of manipulating objectification, the operationalizations typically fall into

two broad categories: objectification through a heightened focus on appearance, and objectification through sexualization. As Morris and Goldenberg (2015a) theorized, these two portrayals reflect two distinct forms of objectification and may elicit two different dehumanizing responses. Specifically, the profound focus on physical appearance leads to a perception of women as “beautiful objects to be gazed at and decorated” (Young, 1990, p. 61). Thus, a focus on women’s superficial appearance or beauty (by themselves or others; *appearance-focused objectification*) may lead to dehumanization characterized by object associations. In contrast, sex is animalistic (Buss, 1994), and thus, when a woman is portrayed with a focus on her sexual body parts, attributes or functions (*sexual objectification*), she is likely to be dehumanized not by object associations, but by animal associations.

Morris and colleagues (2016) provided the first empirical test of this hypothesis. Participants were primed with female targets conforming to the operationalizations of sexual objectification (i.e., a scantily clad, provocatively posed woman described as a pornographic film actress), appearance-focused objectification (i.e., a glamorous woman, with Photoshop-perfect skin and hair, described as a fashion model), or a non-objectified control (i.e., a woman in jeans and a t-shirt described as a graduate student) and dehumanization of the target was assessed. The results demonstrated that the sexually objectified woman was animalistically dehumanized (i.e., perceived as lacking uniquely human traits; likened to animals); conversely, appearance-focused objectification led to mechanistic dehumanization (i.e., perceived as lacking human nature; likened to objects). Moreover, this response was specific to female targets; in another study, participants were shown video clips of the singers Beyoncé Knowles or Usher Raymond that either primed sexual objectification (i.e., dancing provocatively on stage), appearance-focused objectification (i.e., walking the red carpet and behind the scenes at a photo shoot), or a non-

objectified control (i.e., interacting with their family). When Beyoncé was sexualized, she was animalistically dehumanized, and when she was objectified by a focus on her appearance, she was mechanistically dehumanized; however these effects were not observed in response to Usher when he was depicted in the same manner (sexualized or with a focus on appearance).

These differential responses to sexual and appearance-focused objectification were also found to have implications for the consequences women face as a result. Both forms of objectification were associated with an increased willingness to harm the women, but appearance-focused objectification uniquely led to the perception that the woman was not capable of feeling pain. Additionally, to the extent that appearance-focused led to object associations, participants believed that the woman had suffered less during a domestic assault. This reduction in perceived suffering led to more tolerance for the man allegedly responsible for the assault. Thus, women who are objectified by a focus on appearance may be at an increased risk of harm because they are perceived as if they can't experience it (they are, after all, objects). In contrast, the sexualized woman was blamed more for the assault against her than the non-objectified woman. Though this research did not find evidence for the mechanism driving willingness to harm sexually objectified women, the results may indicate that sexual objectification leads to a more active, retributive harm.

A TERROR MANAGEMENT ACCOUNT FOR OBJECTIFICATION

Though there is clearly a significant body of research demonstrating the consequences of objectification, relatively little research has focused on the question of *why* women are objectified. Terror management theory (TMT; Greenberg et al., 1986) offers a theoretical lens through which to view the phenomenon. TMT posits that the awareness of mortality poses the potential to cause massive anxiety, and a great deal of behavior functions to minimize this threat. People cling to cultural constructions of meaning and strive to adhere to cultural standards of value because in doing so, they can attain a sense of symbolic immortality (see Pyszczynski, Greenberg, Solomon, Arndt & Schimel, 2004, for a review). Despite efforts to attain symbolic immortality, humans are housed in a breathing, bleeding, mortal body, and this poses the potential to unravel psychological systems of defenses (Goldenberg, Pyszczynski, Greenberg, & Solomon, 2000). In support of this, research reveals that people respond to reminders of mortality (i.e., *mortality salience*) by distancing from the physical body, reporting less interest in the physical aspects of sex (Goldenberg, McCoy, Pyszczynski, Greenberg, & Solomon, 2000), expressing more disgust toward bodily products (Goldenberg et al., 2001) and avoiding sensations and experiences grounded in the body (e.g., a foot massage, Goldenberg et al., 2006; see also, Goldenberg, Heflick, & Cooper, 2008).

The Female Body Problem

Although all bodies are potentially threatening on account of their corporeality, Goldenberg and Roberts (2004; 2010) argued that women's more prominent role in reproduction

renders their bodies especially problematic. Women bear a heavy burden in the reproduction of the species, and as such, are perceived to be more associated with biology and nature than are men (Ortner, 1974; Reynolds & Haslam, 2011). Moreover, taboos and regulations surrounding women's reproductive features are long-standing and near universal (see Goldenberg, Roberts, Morris, & Cooper, 2013, for a review). Even in contemporary (liberated) Western culture, there are clear messages for women to keep their body's reproductive behaviors concealed (e.g., Kotex's new "crinkle-free" packaging, Kotex.com, 2011; Facebook's removal of images of breastfeeding mothers, Huffington Post, 2013).

Empirical research corroborates that when women fail to conceal the reproductive aspects of their bodies they are met with negative reactions. For example, Roberts, Goldenberg, Power, and Pyszczynski (2002) found that when a female confederate "accidentally" dropped a tampon from her bag participants viewed her as less competent and likeable and sat further away from her, compared to when she dropped a hair clip. Supporting an existential account of aversion towards women's reproductive bodies, Goldenberg, Cox, Arndt, and Goplen (2007) found that highlighting the biological similarities between humans and animals (i.e., human *creatureliness*) increased negative reactions towards images depicting pregnant celebrities (compared to similar images of the celebrities not pregnant). Cox, Goldenberg, Arndt and Pyszczynski (2007) demonstrated a direct link between negative reactions towards female reproduction and mortality concerns. Priming mortality led participants to view breastfeeding in public with more contempt, and also to like less, and position their chairs further away from, a purported partner they were led to believe was breastfeeding (compared to bottle-feeding) a baby in the next room. Further, when mortality was primed and participants expected to interact with the breastfeeding partner, thoughts about human creatureliness (e.g., the words, "creature," "physical" and "saliva") were

more cognitively accessible. Taken together, this research supports a framework in which women's unique reproductive features pose a threat associated with managing mortality concerns, and as a result, women, and women's reproductive behaviors specifically, may be subject to condemnation.

At the same time, attitudes towards women are often seemingly quite positive (Glick & Fiske, 1996), and their bodies are viewed as objects of beauty and desire (Fredrickson & Roberts, 1997). Goldenberg and Roberts (2010) posited that this emphasis on appearance might be a means to strip women of their association with nature, and mortality. Indeed, in Roberts et al. (2002), when the confederate dropped a tampon from her bag, she was not only liked less, but participants high in gender schematicity (i.e., conforming to traditional gender roles) also responded by placing more emphasis on appearance as an important attribute for women in general. And in other research, reminders of mortality have been found to lead women, but not men, to place more emphasis on their own appearance (Grabe, Routledge, Cook, Anderson, & Arndt, 2005) and strive to attain appearance ideals (e.g., Cox, Cooper, Vess, Arndt, & Goldenberg, 2009).

But, as discussed above, objectification involves more than a focus on appearance. In its most basic sense, objectification involves regarding a person less like a human. And as Morris and colleagues (2016) demonstrated, objectification can be quite literal—that is, viewing a person as an object. In this light, Goldenberg (2013) hypothesized that the literal objectification of women can serve a terror management function. In transforming women from (mortal) human beings into immortal objects, existential concerns may be managed. Morris, Goldenberg and Heflick (2014) tested these ideas in the context of women's self-objectifying tendencies. Participants (male and female) were given a manipulation that primed thoughts of death (or a

control condition), and then provided with a reminder of female reproduction (pregnancy, menstruation). In response to the reproduction and mortality primes, women (but not men) responded by denying themselves traits considered essential to human nature (thus likening oneself to an object; Haslam, 2006). In response to a breastfeeding and mortality prime, women explicitly assigned more traits to themselves that they also assigned to objects, and were faster in associating concepts related to the self with object-related concepts in an implicit association test paradigm. Literal self-objectification in response to the manipulations also mediated a reduction in the time participants subsequently spent writing about death, suggesting that this response provided protection from concerns about mortality.

Men's Attraction to Women's Bodies

Despite the threat associated with women's natural, reproducing bodies, men are attracted to these same bodies and body parts; as such, men's attraction to women may pose a threat in the context of mortality concerns. Supporting this, Landau and colleagues (2006) found that men reported being less attracted to sexy women as a function of mortality salience. Extending this theorizing, Morris and Goldenberg (2015b) tested whether literal objectification can reduce this threat. Participants were primed with mortality salience (or a control condition) and then shown a product advertisement featuring a sexualized woman either merged with an object (e.g., a woman depicted as if she were part of the label on a beer bottle), or the woman and the object as separate entities. Replicating the results of Landau et al. (2006), men (but not women) reported finding the sexualized woman less attractive after a mortality prime when she was depicted as separate from the object. In contrast, when the woman was merged with an object (i.e., literally objectified), mortality salience increased the appeal, and men perceived her as more attractive. Although existential concerns complicate men's attraction to women, literal objectification may

be one way in which men are able to resolve the conflict of being attracted to women's (mortal) bodies.

An Existential Perspective for Sexual and Appearance-focused Objectification

There is initial support for the notion that existential motives function in objectification processes. In the context of salient mortality concerns, dehumanization characterized by object associations serves a protective psychological function, reducing the anxiety associated with women's (mortal) bodies (i.e., Morris et al., 2014; Morris & Goldenberg, 2015b). However, as recent research (Morris et al., 2016) demonstrates, objectified women are not just dehumanized by an association with objects, but also by an association with animals (as a function of sexualization). A critical difference between sexual and appearance-focused objectification may be the implications for existential threat associated with mortality concerns. Sex is animalistic (Buss, 1994), and serves as a prominent reminder of mortality (Goldenberg et al., 2002). Previous research has demonstrated that mortality salience increases disgust in response to reminders of animals and body products, and also leads to the desire to see humans as distinct from other animals (Goldenberg et al., 2001; see also Cox, Goldenberg, Pyszczynski, & Weise, 2007). Further, Goldenberg and colleagues (1999) demonstrated that people (high in neuroticism) reported less interest in the physical aspects of sex (e.g., the smell of sex) following a mortality reminder, and that thinking about the physical (but not romantic) aspects of sex increased the subsequent accessibility of death-related cognitions. These results suggest that physical sex is troubling because it interrupts the psychological mechanisms in place to ward off (subconscious) thoughts of death. Thus, sexualized women may be particularly threatening because the association of women with animals undermines the anxiety-buffering systems of defenses in place to protect against concerns about mortality.

This existential perspective may also help to explain the differential pathways through which objectified women are at an increased risk of harm. As previously demonstrated, when women are objectified by a focus on appearance, they may be subject to harm because there is the perception that they do not experience pain (Morris et al., 2016). Yet, in the context of salient mortality concerns, the association of women with objects functions to quell the threat inherent in women's bodies, and thus it is unlikely that appearance-focused objectification would lead to aggression or violence. Rather, this form of objectification is seemingly more associated with passive harm. In contrast, sexualized women may undermine symbolic mortality-denying defenses. Terror management research suggests that mortality salience leads to harsher punishment for moral transgressors (Florian & Mikulincer, 1997; Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon, 1989) and increased aggression against those who threaten one's cultural worldview (McGregor et al., 1998). To the extent that sexualization is threatening in the context of salient mortality concerns, it follows that sexually objectified women might elicit aggression as a defensive response. Thus, sexual objectification may be associated with more active harm for women (i.e., aggression, violence), especially when mortality concerns are salient.

OVERVIEW OF RESEARCH AND HYPOTHESES

Building on a conceptual distinction between appearance-focused and sexual objectification (Morris et al., 2016), and initial evidence that (literal) objectification is motivated, in part, by concerns about mortality (Morris et al., 2014; Morris & Goldenberg, 2015b), the aim of the current research was to experimentally test the existential mechanisms involved in the motivation to dehumanize, and subsequently harm, objectified women. The objective of Study 1 was to establish a direct link between sexual and appearance-focused objectification and existential concerns. Participants were shown a video of a male or female target conforming to the operationalizations of sexual objectification, appearance-focused objectification, or not objectified following a mortality salience (MS) or control prime. They then completed measures of mechanistic and animalistic dehumanization of the target, as well as an assessment of death thought accessibility (DTA). In Study 2, participants were again primed with MS (or a control), and then led to believe they were interacting with a female partner whose online profile depicted her as sexualized, with a focus on her appearance, or not objectified. Participants were given the opportunity to aggress against her by sending her an aversive 2-minute video clip to watch. The guiding hypotheses were that mortality concerns would exacerbate animalistic dehumanization of the sexualized woman and this would increase the accessibility of death-related cognitions (Study 1); moreover, MS was expected to increase aggression against the sexualized woman (Study 2). Conversely, MS was hypothesized to promote mechanistic dehumanization in response to appearance-focused objectification, which would in turn reduce the accessibility of

death related cognitions (Study 1). MS was expected to reduce aggression against the woman in response to appearance-focused objectification (Study 2). These reactions were hypothesized to be specific to women, and not in response to a man who is depicted in the same manner (sexualized or with a focus on appearance; Study 1).

STUDY 1

Participants were told that the study was aimed at assessing how people form impressions of others. They first completed a MS or control manipulation. They were then shown a 30-second video clip featuring the singer Beyoncé Knowles or Usher Raymond either in a sexualized way (i.e., dancing suggestively), with a focus on appearance (e.g., on the red carpet), or in a non-objectified manner (e.g., interacting with family). Next, participants completed measures of dehumanization of the target and subsequently an assessment of DTA. The specific hypotheses were as follows:

Hypothesis 1: Participants will mechanistically dehumanize Beyoncé more when she is objectified by a focus on appearance, compared to when she is sexually objectified, or not objectified.

Hypothesis 2: Participants in the appearance-focused objectification condition and primed with MS will report greater mechanistic dehumanization of Beyoncé, compared to participants not primed with mortality.

Hypothesis 3: Participants will animalistically dehumanize Beyoncé more when she is sexually objectified, compared to when she is objectified by a focus on her appearance, or not objectified.

Hypothesis 4: Participants in the sexual objectification condition and primed with MS will report greater animalistic dehumanization of Beyoncé, compared to participants not primed with mortality.

Hypothesis 5: For participants in the sexual objectification condition, MS will increase animalistic dehumanization of Beyoncé and this will mediate an increase in the accessibility of death-related cognitions.

Hypothesis 6: For participants in the appearance-focused objectification condition, MS will increase mechanistic dehumanization of Beyoncé and this will mediate a decrease in the accessibility of death-related cognitions.

No comparable effects were expected in response to the male target (Usher). On the basis on prior research demonstrating that both men and women dehumanize objectified women (e.g., Heflick & Goldenberg, 2009; Bernard et al., 2012), participant gender was not hypothesized to moderate these outcomes; however, gender was tested in the analyses.

Method

Participants

Determination of sample was based on guidelines set forth by Cohen (1992). Based on a medium to large effect size, power level of .80 and alpha level of .05, the required sample size to adequately detect effects is 600 participants. A total of 626 participants were recruited online through Amazon mTurk and compensated \$0.40 for their participation. The sample consisted of 339 men and 287 women. Participants ranged in age from 18 to 83, with a mean age of 35.39 ($SD = 12.59$).

Materials

Mortality Prime. MS was primed using a 15-item true/false measure (Rosenblatt et al., 1989) with statements aimed at activating thoughts of death, or pain in a control condition (e.g., “I am very much afraid to die/of pain”) (see Appendix A). This was followed by the 60-item PANAS-X (Watson & Clark, 1999) to serve as a delay (since MS effects occur when thoughts

about death are no longer in conscious awareness, e.g., Greenberg, Arndt, Simon, Pyszczynski, & Solomon, 2000) and to assess affect (see Appendix B).

Video Prime. Participants were told they would watch a short video, so as to investigate how people form impressions. There were six different videos, either featuring the singer Beyoncé Knowles or Usher Raymond as sexualized, with a focus on appearance, or not objectified (as in Morris et al., 2016). In the sexualized condition, the video clips featured the singers dancing seductively or in a sexually suggestive way. In the appearance focus condition, the footage showed the singers walking the red carpet, and behind-the-scenes video of a photo shoot. In the non-objectified control condition, the clips depicted the singers doing interviews and interacting with family and children. Each video consisted of three different clips, merged to create a total of 30-seconds of video footage, presented with the sound removed (see Appendix C for links to the videos). This was followed by a 20-item mood assessment (PANAS; Watson & Clark, 1999) to serve as a short delay (Appendix D).

HN/UH Ratings. To measure dehumanization, participants were first instructed to determine the extent to which 25 personality traits (from Haslam et al., 2005) described the person in the video (from 1, *very atypical* to 5, *very typical*). A composite score for perceptions of human nature (HN) was created by averaging ratings on the following items: *curious, emotional, imaginative, sociable, passionate, friendly, fun-loving* ($\alpha = .87$). A composite score for perceptions of uniquely human characteristics (UH) was created by averaging ratings on the following items: *tolerant, refined, humble, thorough, talkative, conservative, analytical, polite, civilized, sincere* ($\alpha = .83$). Based on Haslam's (2006) framework, a reduction in perceptions of HN is an index of mechanistic dehumanization, and a reduction in perceptions of UH traits is an index of animalistic dehumanization.

HN/UH Correlations. Participants were then shown the same list of traits and asked to assess “which of the following traits are essential to human nature (what most characterizes being human)” (from 1, *not at all essential to human nature* to 5, *completely essential to human nature*) or “which of the following traits are experienced solely by humans and not experienced by animals” (from 1, *entirely shared with animals*, to 5, *entirely unique to humans*). All participants first completed the target trait ratings; participants were then randomly assigned to either complete the HN or UH subscale (Appendix E). Within-person correlations were computed between how much each trait described the target and participants’ HN ratings for the traits, or between how much each trait described the target and the UH rating for the traits (e.g., Heflick & Goldenberg, 2009; Paladino, & Vaes, 2009). Thus, this measure assesses the relationship between how participants rate the target on the traits and how human they perceive the traits to be. In other words, perceiving a target to be low on a specific trait does not have implications for dehumanization *unless* that same trait is also perceived as being essential to human nature or unique to humans. This yields a correlation coefficient ranging from -1 to 1, with lower scores indicating decreased HN/UH attributions (i.e., dehumanization).

Valence. To test the alternative explanation that dehumanization effects are a result of affective reactions to the targets, participants were asked to judge the same traits on how desirable they are to possess (from 1, *very undesirable* to 5, *very desirable*) (see Appendix E).

DTA. The accessibility of death-related cognitions was measured using a word fragment task employed in previous research (e.g., Arndt et al., 1997). The task consists of a set of 25 word fragments (e.g., COFF__ __), five of which can be completed with either neutral (e.g., coffee) or death-related words (*coffin, skull, dead, killed, and corpse*). The number of word

fragments completed with a death-related word were summed to compute an index of death thought accessibility for each participant (Appendix F).

Demographics and Reactions. Participants completed a short demographic questionnaire that assessed age, gender, race, ethnicity, relationship status, and sexual orientation. Further, this questionnaire probed for suspicions (see Appendix G).

Results

Hypotheses 1 – 4: Effect of MS and Video Prime on Dehumanization

HN Ratings. To test the effect of mortality salience and the video prime on the first measure of mechanistic dehumanization a 2 (mortality: MS, control) X 3 (prime: sexualized, appearance-focused, non-objectified) ANOVA was conducted on HN ratings split by target (Beyoncé vs. Usher). For participants shown the videos of Beyoncé, there was a significant effect of the video prime, $F(2, 305) = 8.00, p < .001, \eta^2_p = .050$. Supporting Hypothesis 1, when Beyoncé was depicted with a focus on her appearance, she was attributed less HN (i.e., mechanistically dehumanized), compared to when she was sexualized ($p = .043$) or not objectified ($p < .001$). When Beyoncé was sexualized, she was attributed marginally less HN than when she was not objectified ($p = .053$). This was qualified by a significant prime X mortality interaction, $F(2, 305) = 3.18, p = .043, \eta^2_p = .020$. Consistent with Hypothesis 2, participants in the appearance-focus condition reported significantly lower HN ratings of Beyoncé when they were primed with death compared to when death was not primed ($p = .050$). Mortality did not impact HN ratings of Beyoncé in the other two conditions ($ps > .132$). Put differently, when participants were primed with MS, Beyoncé was attributed significantly less HN in the appearance-focused condition, compared to the sexualized ($p = .007$) and non-

objectified conditions ($p < .001$). For participants not given the MS manipulation there was no effect of the video prime on HN ratings ($ps > .281$). These means are presented in Figure 1.

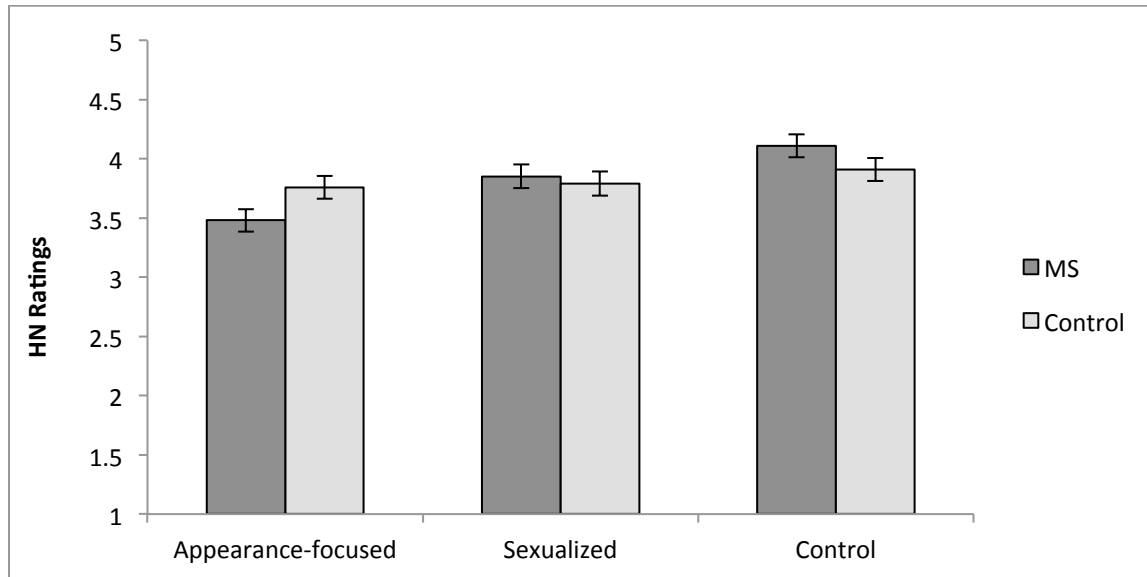


Figure 1. Human nature (HN) ratings of Beyoncé by mortality and video prime

For participants shown the videos of Usher, there was a significant effect of the prime on HN ratings, $F(2, 309) = 3.81, p = .023, \eta^2_p = .024$. When Usher was not objectified, he was attributed significantly more HN, compared to the sexualized ($p = .012$) and appearance-focused conditions ($p = .025$). There was no difference in HN ratings between the sexualized and appearance-focused conditions ($p = .783$). There was no effect of mortality ($p = .282$) and mortality did not interact with the video prime to affect HN ratings ($p = .270$). These means are presented in Figure 2.

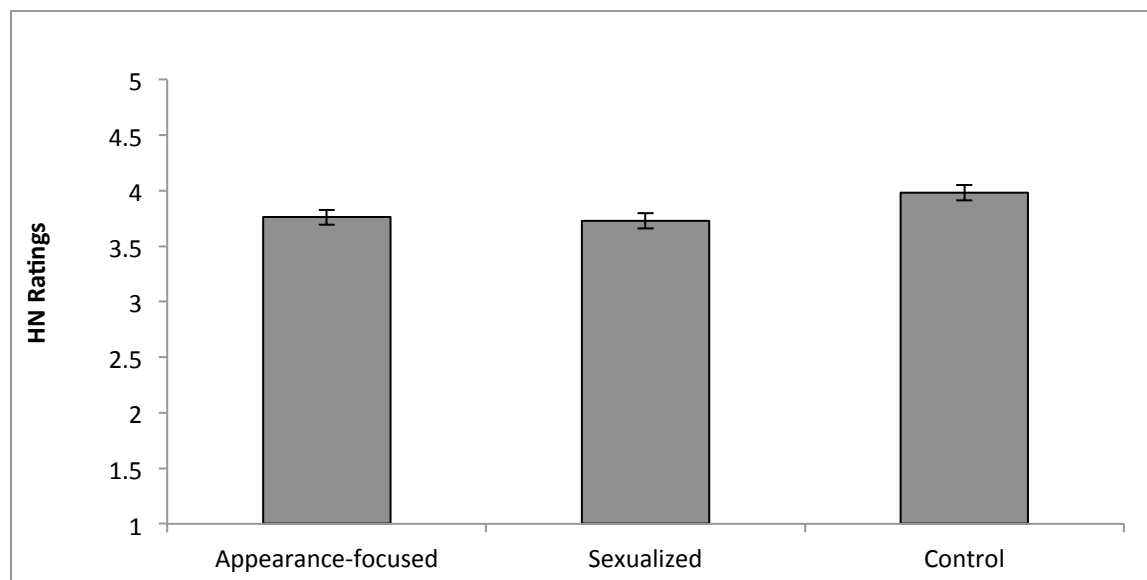


Figure 2. Human nature (HN) ratings of Usher as a function of mortality and the video prime

UH Ratings. To test the effect of mortality salience and the video prime on the first measure of animalistic dehumanization, the same analysis was conducted on UH ratings. For participants shown the videos of Beyoncé, there was a significant main effect of the video prime, $F(2, 305) = 13.16, p < .001, \eta^2_p = .079$. Supporting Hypothesis 3, when Beyoncé was sexualized, she was attributed fewer UH traits (i.e., animalistically dehumanized) compared to when she was depicted with a focus on her appearance ($p = .030$) or not objectified ($p < .001$). Additionally, the appearance-focused condition was ascribed fewer UH traits compared to the non-objectified condition ($p = .004$). The results did not support Hypothesis 4; there was no effect of mortality on UH ratings ($p = .338$) and mortality did not interact with the video prime ($p = .150$). These means are presented in Figure 3.

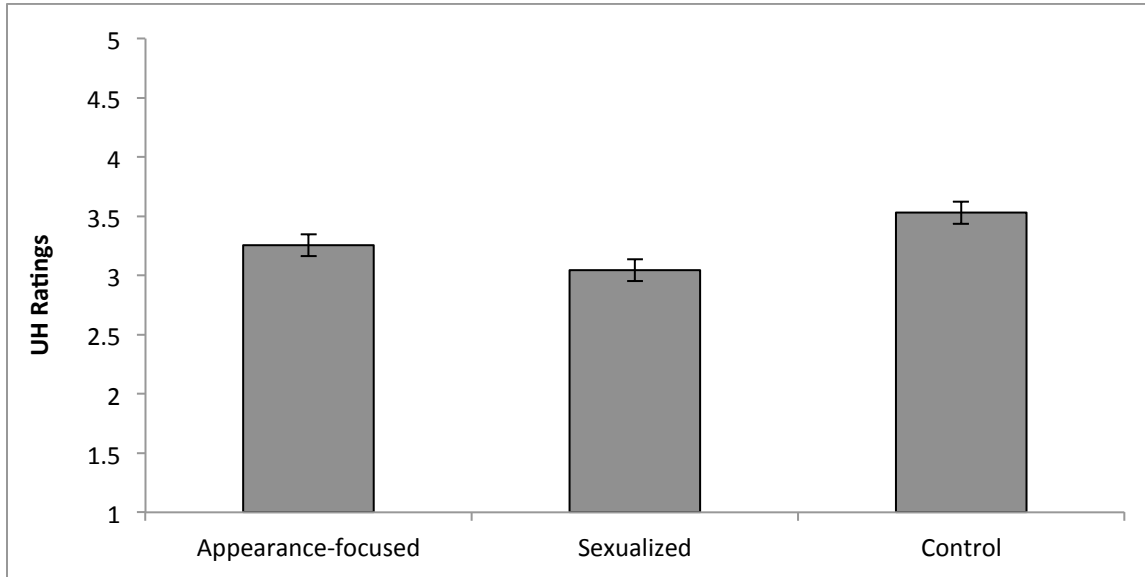


Figure 3. Uniquely human (UH) ratings of Beyoncé by mortality and video prime

For participants shown the videos of Usher, there was a main effect of the video prime on UH ratings, $F(2, 309) = 25.02, p < .001, \eta^2_p = .139$. When Usher was sexualized, he was rated lower on UH traits, compared to both the appearance-focus ($p < .001$) and non-objectified conditions ($p < .001$). Additionally, the appearance-focused condition was rated significantly lower on UH traits compared to the non-objectified condition ($p = .010$). There was no effect of mortality ($p = .773$) and mortality did not interact with the video prime to affect UH ratings ($p = .778$). These means are presented in Figure 4.

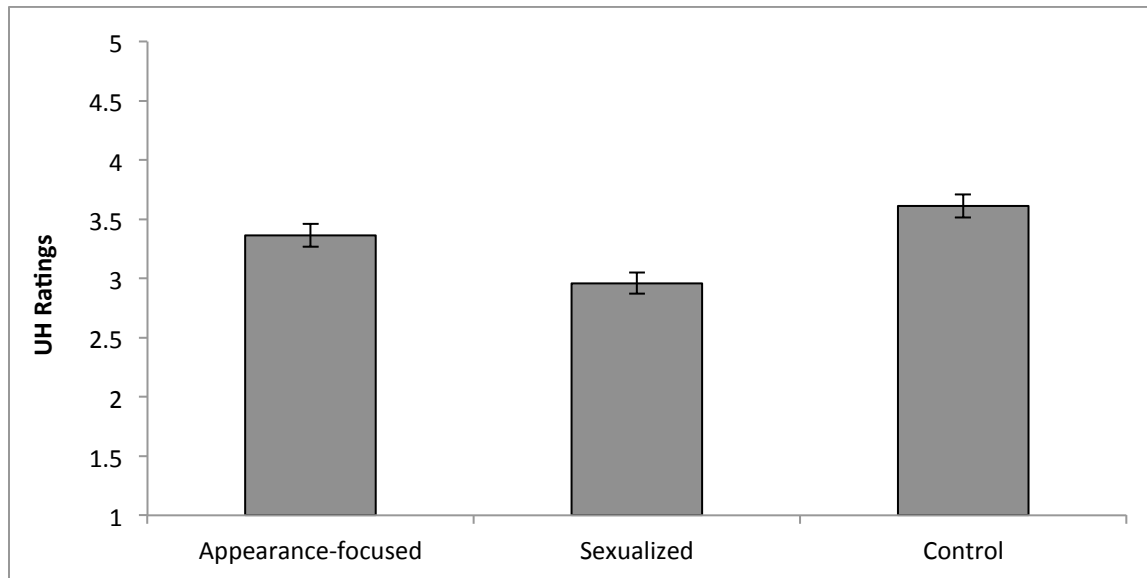


Figure 4. Uniquely human (UH) ratings of Usher by mortality and video prime

HN/UH Correlations. Next, the effect of mortality salience and the video prime on the within-person correlation measure of dehumanization was assessed using a 2 (mortality: MS, control) X 3 (prime: sexualized, appearance-focused, non-objectified) X 2 (humanness scale: HN, UH) ANOVA split by target (Beyoncé vs. Usher). The correlation between the target and HN ratings represents an index of mechanistic dehumanization, and the correlation between the target and UH ratings represents an index of animalistic dehumanization (with lower scores indicating a lack of human attribution, i.e., more dehumanization). The scale type (HN or UH) was a between-subjects factor.

For participants shown the videos of Beyoncé, there was a significant prime X scale interaction, $F(2, 279) = 7.49, p = .001, \eta^2_p = .051$. In support of the hypothesized effects, when Beyoncé was depicted with a focus on her appearance, she was mechanistically dehumanized more than when she was sexualized ($p = .006$) or not objectified ($p = .001$). There was no difference in mechanistic dehumanization of Beyoncé between the sexualized and non-

objectified conditions ($p = .660$). Partially supporting the hypothesis, when Beyoncé was sexualized, she was animalistically dehumanized more than when she was depicted with a focus on her appearance ($p = .030$), however, there was no difference in animalistic dehumanization between the sexualized and non-objectified conditions ($p = .302$). There was also no difference in animalistic dehumanization between the appearance-focused and non-objectified conditions ($p = .259$). These means are presented in Figure 5.

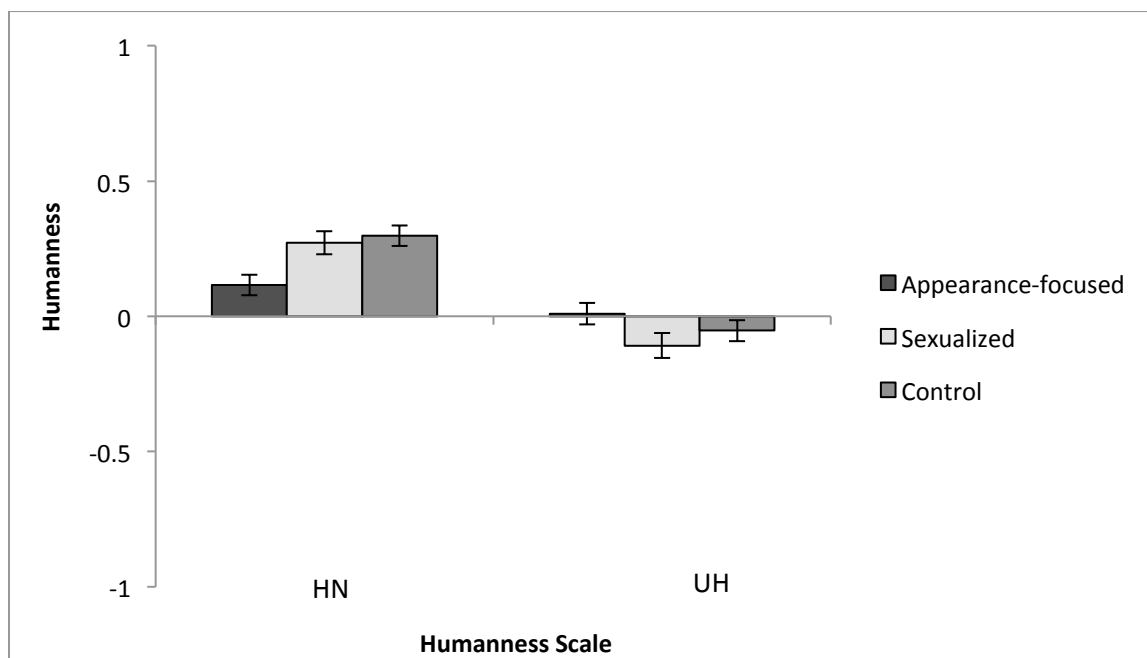


Figure 5. Dehumanization of Beyoncé by video prime and humanness scale. *Note:* Lower scores indicate decreased attributions of humanness (i.e., dehumanization).

There was no effect of mortality on dehumanization ($p = .837$), mortality did not interact with video prime ($p = .338$) and the predicted three-way interaction between mortality, the video prime, and humanness scale was not significant ($p = .556$).

For participants shown the videos of Usher, there was a main effect of the video prime, $F(2, 275) = 9.71, p < .001, \eta^2_p = .066$. When Usher was sexualized, he was dehumanized more compared to both the appearance-focused ($p = .003$) and non-objectified conditions ($p < .001$); there was no difference in dehumanization between the appearance-focused and non-objectified conditions ($p = .192$). The effect of the prime did not interact with the scale ($p = .158$), suggesting there was no difference in the type of dehumanization being measured (as a function of the video prime). These means are presented in Figure 6.

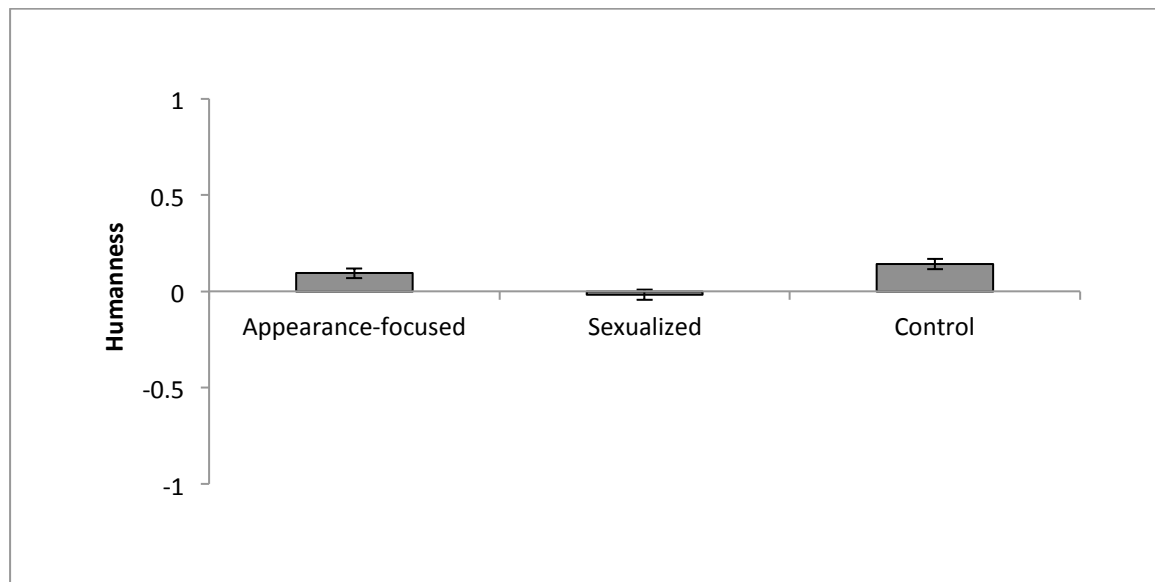


Figure 6. Dehumanization of Usher by video prime. *Note:* Lower scores indicate decreased attributions of humanness (i.e., dehumanization).

There was no effect of mortality on dehumanization ($p = .565$), mortality did not interact with the video prime ($p = .903$), and the mortality X prime X scale interaction was not significant ($p = .302$).

Effect of Participant Gender on Dehumanization

HN/UH Ratings. To test for gender differences in these effects, the previously reported analyses were conducted with the inclusion of participant gender as a between-subjects factor. There was a main effect of participant gender on HN ratings of both targets, such that male participants rated both Beyoncé and Usher lower on HN traits, compared to female participants ($ps < .010$). Participant gender did not interact with mortality or the video prime to influence HN ratings of either target ($ps > .115$).

There was a main effect of participant gender on UH ratings of Beyoncé ($p = .038$). Male participants rated Beyoncé lower on UH traits, compared to female participants. Participant gender did not influence UH ratings of Usher ($p = .075$), and gender also did not interact with the video prime or mortality to influence UH ratings of either target ($ps > .119$).

HN/UH Correlations. For participants shown the videos of Beyoncé, the inclusion of participant gender did not impact the results in a meaningful way. Again, there was a main effect of gender ($p = .003$), with male participants reporting greater dehumanization of Beyoncé than female participants, however, none of the interaction terms with gender were significant ($ps > .236$).

For participants shown the videos of Usher, there was not a significant main effect of gender ($p = .754$), however, there was a significant three-way interaction between the video prime, dehumanization scale, and participant gender, $F(2, 275) = 5.31, p = .005, \eta^2_p = .037$. Pairwise comparisons indicated that men did not mechanistically dehumanize Usher as a function of the video primes; there was no difference between any of the conditions ($ps > .316$). Female participants reported more mechanistic dehumanization of Usher in both the appearance-focused ($p = .008$) and sexualized conditions ($p = .005$), compared to the non-objectified

condition. There was no difference in female participants' mechanistic dehumanization of Usher between the sexualized and appearance-focused conditions ($p = .816$). Conversely, male participants animalistically dehumanized Usher more in the sexualized, compared to the non-objectified condition ($p = .002$). There was no difference in animalistic dehumanization between the appearance-focused condition and the sexualized or non-objectified conditions ($ps > .111$). For female participants, there was no difference in animalistic dehumanization between the sexualized and non-objectified conditions ($p = .722$) however, female participants reported significantly less animalistic dehumanization of Usher in the appearance-focused condition, compared to both the other two conditions ($ps < .030$). These means are presented in Figures 7 and 8.

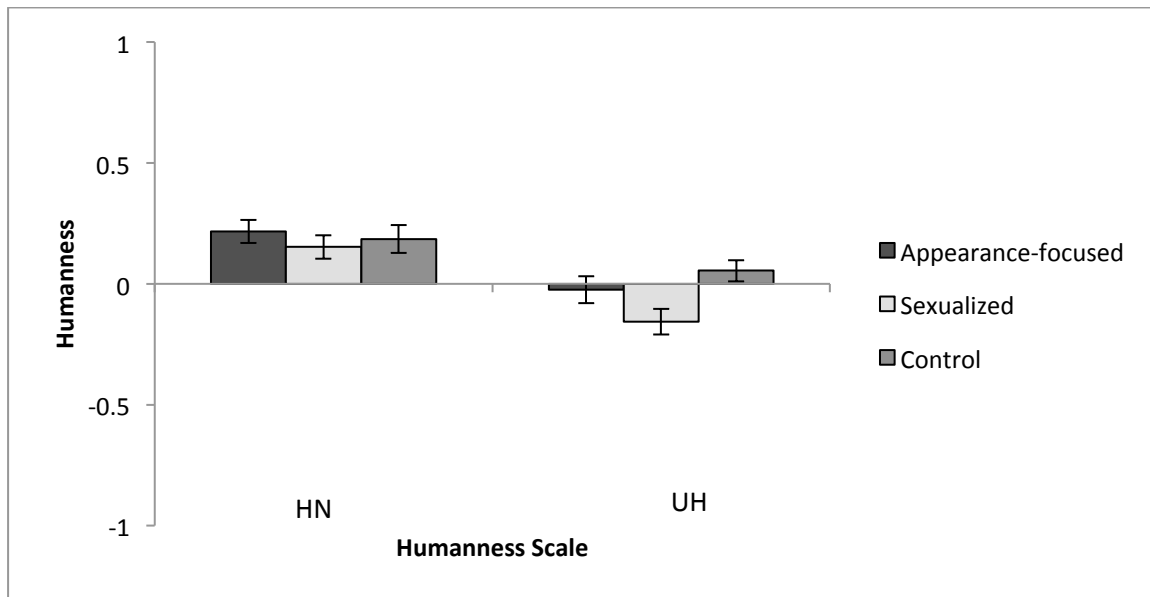


Figure 7. Male participants' dehumanization of Usher by video prime and scale type. Note: Lower scores indicate decreased attributions of humanness (i.e., dehumanization).

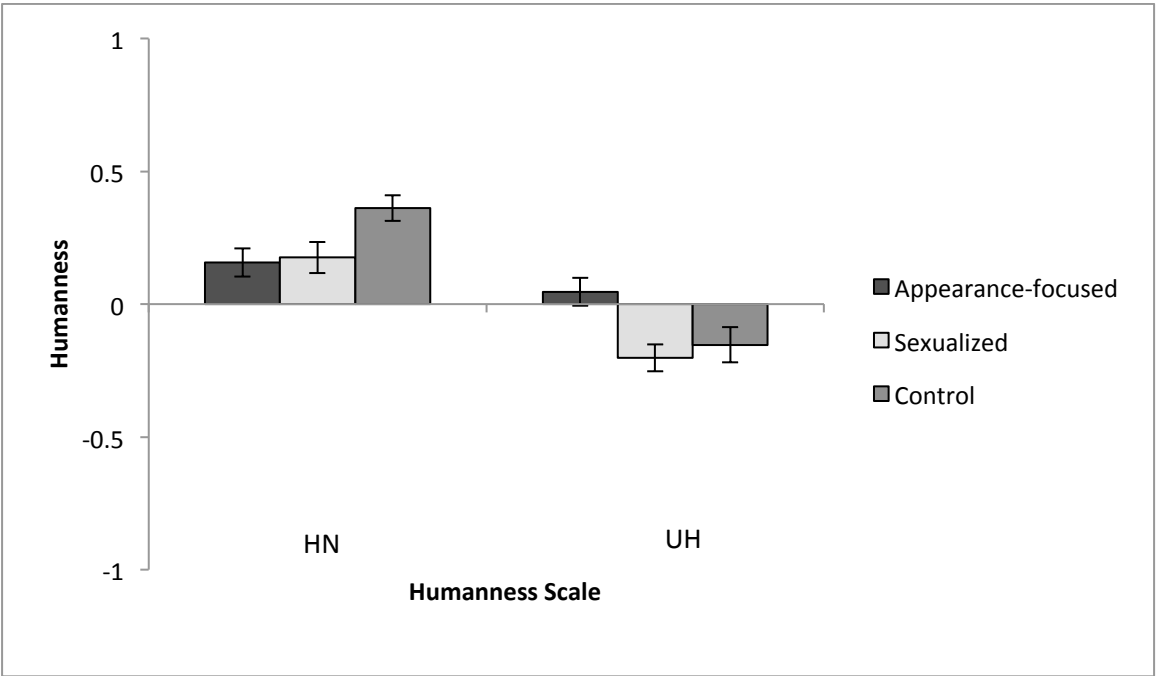


Figure 8. Female participants' dehumanization of Usher by video prime and scale type. Note: Lower scores indicate decreased attributions of humanness (i.e., dehumanization).

Effect of Desirability of Dehumanization

HN/UH Ratings. To assess whether the previously reported effects were a function of affective reactions to the target, the analysis on HN ratings was conducted controlling for the average desirability rating of each of the items on the HN composite. For participants shown the videos of Beyoncé, the inclusion of desirability did not influence the significant main effect of the video prime ($p = .001$); examination of the pairwise comparisons indicated that the effect of the appearance-focus prime on HN ratings was not affected by desirability ($ps < .01$), but the previously reported marginal difference between the sexualized and control primes was no longer significant ($p = .277$). Additionally, the inclusion of desirability rendered the previously reported prime X mortality non-significant ($p = .123$).

For participants shown the videos of Usher, controlling for desirability did not influence the main effect of the video prime on HN ratings ($p < .001$). In this case, the pattern on significant differences between the groups was not affected.

The analysis on UH ratings was also conducted controlling for the average desirability rating of the items of the UH composite. Controlling for desirability did not influence the significant effect of the video prime for either target ($ps < .001$), and also did not change the pattern of significance between conditions.

HN/UH Correlations. To examine the influence of desirability of the second measure of dehumanization, within-person correlations were computed between target trait ratings and how desirable the traits are to possess. For participants shown the videos of Beyoncé, controlling for desirability did not influence the previously reported prime X scale interaction ($p = .004$).

Pairwise comparisons indicated that although the effect of the prime on mechanistic dehumanization was unaffected by inclusion of the covariate (when Beyoncé was depicted with a focus on appearance she was mechanistically dehumanized more than when she was sexualized or not objectified, $ps < .020$), the effect of the sexualized video prime on animalistic dehumanization was no longer significant ($ps > .250$).

For participants shown the videos of Usher, the inclusion of desirability rendered the effect of the video prime non-significant ($p = .374$). The prime X scale X participant gender interaction remained significant ($p = .014$), however, pairwise comparisons indicated that the previously reported effect of female participants' mechanistic dehumanization of Usher, and male participants' animalistic dehumanization of Usher were no longer statistically significant ($ps > .056$). Only female participants' animalistic dehumanization responses (less animalistic

dehumanization in the appearance-focused condition) remained statistically significant ($p < .017$).

Effect of Mood Following Mortality Salience

Finally, scores on the PANAS-X were examined to test for differences in mood as a function of the mortality prime. There was not an effect of mortality on positive ($p = .193$), negative ($p = .214$), or fear-specific affect ($p = .225$). Additionally, controlling for affect following the mortality prime did not influence the pattern of results on the HN ratings of Beyoncé.

Hypotheses 5 – 6: Mediation of DTA by Dehumanization

To test Hypotheses 5 and 6, a series of moderated mediation analyses were conducted using a bootstrapping approach (PROCESS macro for SPSS, Hayes, 2012). Because the video prime had three levels (sexualized, appearance-focused, non-objectified), dummy-coded variables were created, with the appearance-focused condition serving as the reference category (appearance-focused vs. sexualized; appearance-focused vs. non-objectified). The analyses were conducted with one dummy-coded variable as the predictor (controlling for the other), mortality salience (death vs. control) and the target (Beyoncé vs. Usher) as moderators, and the dehumanization outcomes mediating DTA (Model 11, Hayes, 2012). Estimates were derived from 5,000 percentile-corrected bootstrapped samples. This model generates the relative indirect (mediation) effect of the video prime on DTA, through dehumanization, at each level of the moderating variable. HN and UH ratings were tested on the full sample; when the HN/UH correlations were considered as a mediator, the model was run of the subset of participants who completed the scale relevant to each form of dehumanization (mechanistic or animalistic).

There were no direct effects of the prime, mortality, or target on DTA ($ps > .556$). Additionally, none of the dehumanization measures (HN ratings, UH ratings, HN within-person correlation, UH within-person correlation) significantly predicted DTA ($ps > .257$). There was also no evidence that any of the assessments of dehumanization mediated DTA. The confidence intervals generated for each of the conditional indirect effects straddled zero, indicating that the criteria for statistical significance was not met.

Discussion

The results of Study 1 replicated prior research (Morris et al., 2016) showing a distinction in the type of dehumanization that is implicated as a function of sexual, compared to appearance-focused objectification of women. Hypotheses 1 and 3 were supported; when a female target—in this case, the singer Beyoncé Knowles—was objectified by a focus on her appearance, she was mechanistically dehumanized more (on both measures of dehumanization), compared to when she was sexualized or not objectified. When Beyoncé was sexualized, she was attributed fewer UH traits (on the composite measure) than when she was objectified by a focus on appearance or not objectified. This effect was partially replicated on the UH within-person correlation: When Beyoncé was sexualized, she was animalistically dehumanized more than when she was depicted with a focus on appearance. Though participants reported (animalistically and mechanistically) dehumanizing both objectified depictions of the male target (singer Usher Raymond) compared to a non-objectified depiction, there was no difference in perceptions of humanness between the appearance-focus and sexualized conditions. Hypothesis 2 was partially supported; for participants shown the videos of Beyoncé, MS decreased attributions of HN (on the composite rating) in the appearance-focused condition, compared to those not primed with death. MS did not affect HN ratings in any of the other conditions. Curiously, MS had no effect on the within-

person correlation assessment of mechanistic dehumanization (a conceptually similar measure). Contrary to the hypothesis, there was no effect of MS on either measure of animalistic dehumanization of Beyoncé, and mortality did not interact with the video prime as predicted. Further, mortality had no effect on the accessibility of death-thought, either directly or indirectly through dehumanization. Mortality salience also had no effect on dehumanization of the male target.

Target Gender and Objectification

It was hypothesized that dehumanization, as a function of sexualization or appearance-focus, would be specific to the female target (Beyoncé) and would not extend to perceptions of an objectified male target (Usher). Interestingly, that did not seem to be the case here; when Usher was objectified (either by a focus on appearance or through sexualization), he was generally dehumanized more than when he was not objectified. In contrast to the results observed for Beyoncé, there were no systematic differences in dehumanization between the sexualized and appearance-focused conditions, nor was there a difference in the type of dehumanization being measured. It's possible that this effect might be, in some way, related to race. Prior research has shown that African Americans are implicitly associated with nonhuman apes (Goff et al., 2008) and ascribed fewer uniquely human characteristics (Costello & Hodson 2013) by White perceivers. An important aspect of this study is that in the control condition, the targets were not only not objectified, but also quite *humanized*. It might be the case that the dehumanization of Usher when he was objectified was less about the depiction of him, and more about dehumanization of an African American person, unless there is an explicit reminder of humanness. Still, this explanation would not hold for Beyoncé and the differential dehumanization effects observed in response to sexualization and appearance focus. It should be

noted that some previous research has found sexualized men are dehumanized in the same way as sexualized women (Loughnan et al., 2010; Gray et al., 2011); in contrast, research using an appearance-focus manipulation demonstrated that dehumanization results were specific to women (Heflick et al., 2009). This ambiguity is of critical importance to the field of objectification, and going forward, it will be important to understand if and when objectified male targets are also dehumanized.

Participant Gender and Dehumanization of Objectified Targets

The majority of prior research has demonstrated that both men and women dehumanize objectified female targets (e.g., Heflick & Goldenberg, 2011; Bernard et al., 2010). This study largely supports that conclusion; for participants shown videos of Beyoncé, participant gender did not interact with the video prime to affect HN or UH ratings, or the correlation measure of dehumanization. However, these results do suggest an intriguing possibility when it comes to dehumanization of objectified male targets. Specifically, on the HN/UH correlations, male participants did not mechanistically dehumanize Usher when he was depicted as sexualized or with a focus on appearance (compared to not objectified), but female participants did. Additionally, female participants reported decreased animalistic dehumanization of Usher when he was objectified by a focus on appearance. Conversely, male participants reported more animalistic dehumanization of Usher when he was sexualized. Most existing research focuses on dehumanization of objectified women; though it is difficult to draw any conclusions on the basis of these results, it does suggest the need for future work to delineate how, why, and who dehumanizes objectified men.

Desirability and Dehumanization

To test the alternative explanation that dehumanization is simply a function of negative reactions to a target, participants were asked to judge how desirable each trait is to possess, and it was hypothesized that controlling for desirability would not influence the dehumanization effects. This was true for dehumanization of Beyoncé in the appearance-focused condition; even when controlling for the desirability of the traits, she was mechanistically dehumanized more when she was objectified by a focus on her appearance, compared to when she was sexually objectified or not objectified. However, controlling for desirability did affect dehumanization in the sexualized condition. First, there was a trending effect of reduced perceptions of HN (on the composite measure) of Beyoncé as she sexualized, compared to when she was not objectified; this effect was eliminated when desirability was included in the model. Additionally, on the correlation measure of animalistic dehumanization, controlling for desirability rendered the effects of dehumanization (for both Beyoncé and Usher) non-significant. These results might suggest that animalistic dehumanization of sexualized targets is a function of dislike or disdain towards a specific type of person. Indeed, Haslam (2006) suggests that each form of dehumanization has a unique affective response. Animalistic dehumanization is associated with derogation and debasement, and seeing a person as sub-human. Conversely, mechanistic dehumanization is associated with emotional indifference or distancing, and seeing a person as non-human (rather than sub-human). This could explain the discrepant effects of controlling for desirability. In other words, the measure of desirability might tap into an important component of animalistic dehumanization that is not relevant to mechanistic dehumanization. An important area for future research will be to explore how affective reactions differ in response to objectified targets, and how this functions in subsequent dehumanization.

The Existential Function of Objectification

The primary goal of this study was to assess the role that existential concerns play in the objectification of women; though not all of the hypotheses were supported, there is some evidence that sheds a tentative light on the possible existential function of objectification and dehumanization. For participants shown the videos of Beyoncé, there was a significant interaction between the video prime and mortality on HN ratings. Deconstructing this interaction revealed that the effect of the video prime on HN ratings was being driven by those primed with death. In the appearance-focused condition, Beyoncé was rated lower on HN traits when participants were primed with MS, compared to those not primed with death. MS had no effect on HN of Beyoncé in the other two conditions. A reduction in HN ratings is consistent with mechanistic dehumanization; however, this effect was not observed on the second measure of mechanistic dehumanization (within-person correlation). It is unclear why this was the case; the two measures were significantly correlated, $r(285) = .352, p < .001$, though it was only a moderate relationship. Thus, the HN ratings may tap into a slightly different construct than the within-person correlation measure of mechanistic dehumanization.

Mortality salience did not effect animalistic dehumanization of the sexualized female target. This was surprising given past research demonstrating that reminders of sex (Goldenberg et al., 2000) and sexualized women (Landau et al., 2006) are especially threatening in the context of existential concerns. It's possible that this might be a function of competing motivations; sexualized women are seen as animal-like, and mortality salience should increase this perception. Yet at the same time, this association is threatening when cognitions about death are activated and might lead to a desire to *not* see sexualized women as animals, in an effort to quell the threat.

It remains unclear what effect, if any, mortality salience has on perceptions and dehumanization of sexualized targets.

Taken together, Study 1 provides reinforcing evidence for the differential dehumanization effects between sexual and appearance-focused objectification of women. Further, this study sheds light on some methodological (e.g., measures of dehumanization) and individual differences (e.g., participant gender) that may play a crucial role in the processes, underscoring the need for future research. Though the role of existential concerns remains unclear, Study 2 shifts the focus to explore the consequences of objectification for women.

STUDY 2

The aim of Study 2 was to inform the consequences women might face as a result of objectification. As prior research has shown, both appearance-focused and sexual objectification are linked to an increased risk of harm for women (e.g., Loughnan et al., 2010; Morris et al., 2016). In line with the results of Morris and colleagues (2016), appearance-focused objectification might lead to increased harm because women are perceived as objects, and not capable of experiencing pain. In contrast, sexual objectification might elicit harm of a more active, retributive nature (women are perceived as able to feel pain, yet there is a desire to harm them anyway).

An existential perspective may offer insight into the mechanisms involved in the desire to harm sexually objectified women: To the extent that sexualization is threatening because of its implications for animal associations, and thus mortality, it may lead to aggression as a defensive response, especially in the context of salient mortality concerns. Appearance-focused objectification should not lead to the same consequences because an association of women with objects (as a function of appearance focus) reduces the threat connected to mortality (e.g., Morris et al., 2014; Morris & Goldenberg, 2015b).

A primary goal of Study 2 was to assess the consequences of sexual and appearance-focused objectification as a function of mortality awareness. Participants were given the same MS or control prime used in Study 1, and then led to believe they were interacting with a partner online. They saw an image of the purported partner's social media profile; the profiles were

manipulated to prime the conditions of appearance-focused objectification, sexual objectification, or a non-objectified control condition. Participants then learned about their partner's movie preferences and had the opportunity to aggress against her by sending her an aversive film clip to watch (as in Bosson, Parrott, Swan, Kuchynka, & Schramm, 2015). The hypotheses were as follows:

Hypothesis 1: When the profile depicts the partner as sexualized, participants primed with mortality will elect to have her watch the aversive video for a longer amount of time, compared to participants not primed with MS.

Hypothesis 2: When the profile depicts the partner with a focus on appearance, participants primed with mortality will elect to have her watch the aversive video for a shorter amount of time, compared to participants not primed with MS.

Mortality salience was not hypothesized to have an effect on aggression towards the partner when she was not objectified.

Method

Participants

Determination of sample was based on guidelines set forth by Cohen (1992). Based on a medium to large effect size, power level of .80 and alpha level of .05, the required sample size to adequately detect effects is 150 participants. One hundred sixty-one participants were recruited online through Amazon mTurk and compensated \$0.40 for their participation in the study. The sample consisted of 89 men and 72 women, and ranged in age from 19 to 70 with a mean age of 34.82 ($SD = 12.11$).

Materials and Procedure

Mortality Prime. Participants first completed the same MS (or control) prime used in Study 1, with 15 true/false items aimed at activating thoughts of death (or pain in the control condition; Rosenblatt et al., 1989; Appendix A). This was followed by the 60-item PANAS-X (Watson & Clark, 1999) to serve as a delay and assess affect (Appendix B).

Social Media Profile. Participants were told that they would complete the remainder of the study with another person online. The purported purpose of the first partner task was to assess how people form impressions on the basis of online profiles. To bolster the cover story, participants were asked to share one of their online social media profiles (Facebook, Twitter, or Instagram) by providing a weblink; alternatively, they could answer a few questions to create a profile if they preferred not to share theirs. Participants were told that their partner in the study (another mTurker) would see their profile, and that they would see what the other person had shared with them. They were also asked to pick a username, which was used to identify them as they interacted with their partner for the remainder of the study.

On the following screen, participants were shown the social media profile shared by their partner, Jillan89. The profile depicted the standard home screen of an Instagram page; there was a small main photo, a username, post and follower count, and six large visible photos. In the sexually objectified condition, the profile depicted a young Caucasian woman in her mid-twenties, with long brown hair, dressed in skimpy clothing and posed provocatively. In the appearance-focused objectification condition, the profile also depicted a young Caucasian woman in her mid-twenties, with long brown hair, dressed fashionably, but in non-revealing clothing and looking glamorous and well groomed. Each profile also contained two neutral images (a cup of coffee and a beach scene). The images in the two objectified conditions were

matched so that woman's pose and proportion of her body showing was approximately the same in each of the photo positions on the profile. In the non-objectified condition, the main profile photo depicted a Caucasian woman in her mid-twenties, with brown hair, smiling into the camera; the remaining photos featured pictures of places and things (i.e., the cup of coffee and beach scene), and photos of the woman with friends and doing activities (e.g., kayaking). The username ("jml89") and post/follower count ("188 posts, 87 followers, 133 following") was constant across conditions. Participants were asked to examine the profile for a few moments before moving on, as they would be asked questions about their partner later in the study.

Pilot testing was conducted on the profiles to ensure they did not differ on attractiveness, but did differ of the critical dimensions of sexualization and appearance focus. Seventy-five participants were recruited from a student research pool and took part in the study in exchange for course credit. Participants saw one of the profiles and then evaluated the person in the profile on a series of traits. In addition to rating how attractive the woman was, one item assessed appearance-focused objectification ("How much is this woman valued for her beauty?"), one item assessed sexual objectification ("How sexual is this woman?"), and one item assessed personhood ("How important is this woman's personality?"). Responses were made on a 1 to 7 scale, from *not at all* to *very much*. There was no difference between the profiles of perceived attractiveness ($p = .893$). There was a significant difference on the item assessing appearance-focused objectification (perceived value based on beauty), $F(2, 71) = 3.56, p = .037, \eta^2_p = .089$. The appearance-focus profile was rated significantly higher than both the sexualized ($p = .020$) and non-objectified profiles ($p = .033$). There was no difference in perceived value based on beauty between the sexualized and non-objectified profiles ($p = .763$). There was a significant effect of the profile on the item assessing sexual objectification (perceived sexualness), $F(2, 71)$

= 14.18, $p < .001$, $\eta^2_p = .286$. The woman in the sexualized profile was rated significantly higher than the appearance-focus and non-objectified profiles ($ps < .001$). There was no difference between the appearance-focus and non-objectified profiles ($p = .922$). Finally, there was a significant effect of the profile on the item assessing personality, $F(2, 71) = 4.35$, $p = .017$, $\eta^2_p = .109$. The woman in the non-objectified profile was rated significantly higher than both the appearance-focus ($p = .016$) and sexualized profiles ($p = .012$). There was no difference in perceived importance of personality between the appearance-focus and sexualized profiles ($p = .912$). On the basis of this pilot data, the profiles were expected to adequately prime the conditions of appearance-focused objectification, sexual objectification, and a non-objectified control.

Aggression Paradigm. The aggression paradigm was a modified version of the procedure for assessing sexual aggression developed by Hall and Hirschman (1994) and Parrott et al. (2012), and validated for use online by Bosson et al. (2015). Participants were told that the next portion of the study they were completing with their partner involved a movie and media preferences task. They first completed a survey indicating their liking for various types of media content (e.g., “I like movies and/or TV shows with lots of action”; “If a movie has a lot of killing/blood, I won’t watch it”). They then learned that a summary of their responses was sent to their partner and they would receive a summary of their partner’s preferences. On the next screen they saw a three sentence written summary of their partner’s movie preferences. The summary indicated the partner’s strong dislike for horror films and scary/suspenseful content (Appendix H).

Participants were then told that the task involved one partner choosing movie or TV clips to send and the other partner watching the selected clip, and they have been randomly assigned

to the role of the “chooser.” They were also told that although there were several options in the study, they had been randomly assigned two choices. The first choice was a neutral film about man and a woman in a cooking class. The second choice was a scary film about a woman who is being watched by a shadowy figure in the dark; when she turns on her bedside light, there is a deranged looking human-like figure next to her bed. Three still frames that depicted what the film was about accompanied each choice and description.

Participant were told that their partner would watch 120 seconds of movie footage and they could decide how much of each clip they want her to watch. The selection was made on a sliding scale (as in Bosson et al., 2015; Appendix I).

The order in which the clips (horror vs. neutral) first appear, as well as the order in which they are presented on the decision screen, were counterbalanced between participants.

Perceptions of Partner. Participants also responded to several questions assessing their beliefs about how their partner would react to the film clip (“I chose the clip that I thought my partner would prefer,” “I chose the clip that I preferred,” “I chose the clip because I believed my partner would enjoy watching it,” “I chose the clip that was most in line with my partner’s media preferences,” “I chose a clip that I did not think my partner would really like,” “My partner likes the video I showed,” “My partner is uncomfortable with the video I showed,” and “My partner is upset with the video I showed.” These items served as validation of the aggression paradigm (that is, participants who send the aversive film to the partner should also report that the partner will not like watching it). Additionally, participants rated perceptions of their partner’s personality on several traits (*intelligent, conservative, open, likeable, agreeable, neurotic, traditional, sociable, modern, warm*). All items were answered on a 1 to 5 Likert scale.

Demographics. Participants completed a basic demographic questionnaire assessing age, gender, race, ethnicity, relationship status, and sexual orientation.

Results

To test Hypotheses 1 and 2, a 2 (mortality: MS, control) X 3 (profile: sexualized, appearance-focused, non-objectified) ANOVA was conducted on the length of time participants elected to have their partner watch the aversive film clip. There was no effect of the profile ($p = .806$) or mortality ($p = .215$), and mortality did not interact with the profile to affect aggression ($p = .294$). When participant gender was included in the analysis, there was a significant main effect of gender, $F(1, 149) = 5.99, p = .016, \eta^2_p = .039$. Male participants sent the aversive clip to the partner for a longer amount of time ($M = 38.94, SD = 46.93$) compared to female participants ($M = 21.31, SD = 36.40$). However, gender did not interact with the profile or mortality primes ($ps > .243$) and the three-way interaction was not significant ($p = .645$). There was not an effect of presentation order of the clips ($p = .655$), and order did not interact with any of the other variables ($ps > .132$).

There was a significant positive correlation between the amount of time participants sent of the aversive clip and a composite of the items assessing the partner's reaction to the video (e.g., "My partner is upset by the video I sent"), $r(161) = .524, p < .001$. This supports the validity of the aggression paradigm, demonstrating that participants were aware that sending the aversive clip would cause the partner distress.

Ancillary Analyses

Participants rated perceptions of their partner's personality on several dimensions. Though these items were not intended to represent human nature (HN) or uniquely human characteristics (UH), they can generally be grouped on the basis of these constructs. Five items

(*open to new experiences, likeable, agreeable, sociable, warm*) represented HN traits and five items (*intelligent, conservative, neurotic, traditional, modern*) represented UH traits, and were averaged to create HN and UH composites. The reliability for the HN scale was good ($\alpha = .83$), however, the reliability for the UH scale was poor ($\alpha = .26$). Because no combination of the UH items reached acceptable reliability, the items were examined individually.

A 2 (mortality: MS, control) X 3 (profile: sexualized, appearance-focused, non-objectified) ANOVA was conducted on participants HN ratings of their partner. There was a significant mortality X profile interaction, $F(2, 155) = 5.67, p = .005, \eta^2_p = .067$. Pairwise comparisons indicated that for participants shown the appearance-focused profile, MS significantly reduced perceptions of HN compared to participants not primed with MS ($p = .007$). The effect of MS was not significant for participants shown the sexualized or non-objectified profiles ($ps > .145$; and the pattern was descriptively in the opposite direction). Looked at differently, appearance-focused objectification reduced perceptions of HN, compared to both the sexualized ($p = .035$) and non-objectified conditions ($p = .027$), but only for participants primed with death. There was no difference between the sexualized and non-objectified conditions for participants primed with MS ($p = .817$). The difference in HN ratings between the profiles did not reach statistical significance for participants not primed with MS ($ps > .053$). These means are presented in Figure 9.

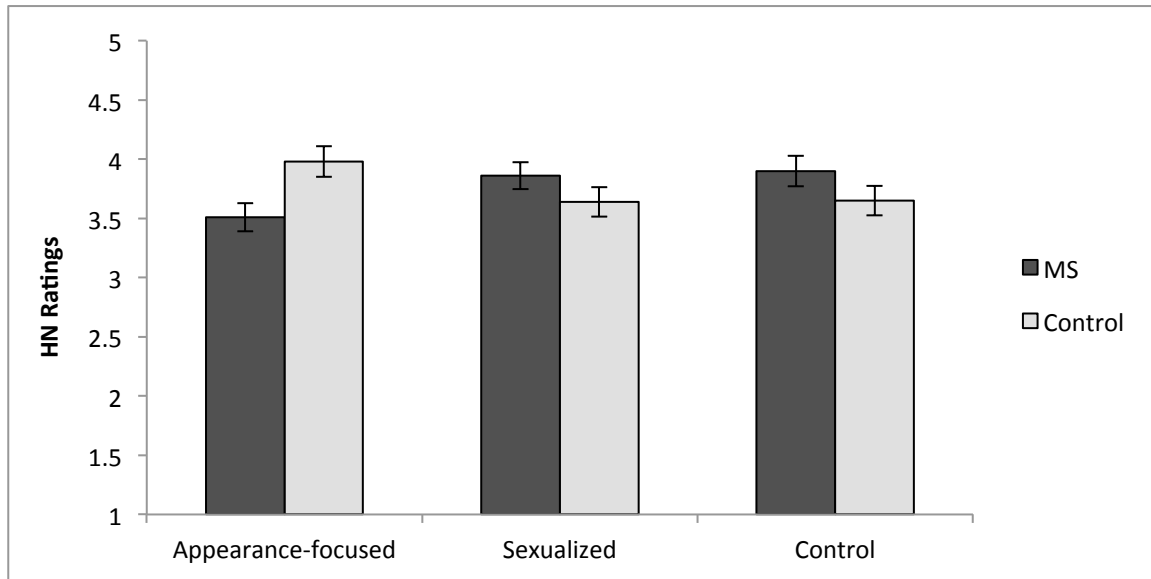


Figure 9. Human nature (HN) ratings by mortality and profile.

A 2 (mortality: MS, control) X 3 (profile: sexualized, appearance-focused, non-objectified) MANOVA was conducted on perceptions of the partner as intelligent, conservative, neurotic, traditional, and modern. The main effect of the profile on the set of dependent variables was significant, Wilk's $\lambda = .774$, $F(10, 302) = 4.12$, $p < .001$, $\eta^2_p = .120$. There was also a significant mortality X profile interaction on the set of dependent variables, Wilk's $\lambda = .877$, $F(10, 302) = 2.05$, $p = .028$, $\eta^2_p = .064$. Because statistical significance was found, the univariate ANOVAs were examined. There was a significant effect of the profile on perceptions of intelligence, $F(2, 155) = 3.61$, $p = .029$, $\eta^2_p = .044$. The woman in the sexualized profile was rated as significantly less intelligent than both the appearance-focused ($p = .022$) and non-objectified profiles ($p = .021$). There was no difference in perceptions of intelligence between the appearance-focused and non-objectified profiles ($p = .995$). There was no effect of mortality salience ($p = .834$) and mortality did not interact with the profile to influence intelligence ratings ($p = .234$).

There was a significant effect of the profile on perceptions of the partner as conservative, $F(2, 155) = 8.31, p < .001, \eta^2_p = .097$. Participants rated the partner in the sexualized profile as significantly less conservative, compared to both the appearance-focused and non-objectified profiles ($ps < .001$). There was no difference between the appearance-focused and non-objectified profiles ($p = .857$). There was no effect of mortality ($p = .338$) and mortality did not interact with the profile to influence perceptions of the partner as conservative ($p = .814$).

There were no significant main effects or interactions on perceptions of the partner as neurotic ($ps > .083$).

There was a significant effect of the image on perceptions of the partner as traditional, $F(2, 155) = 15.17, p < .001, \eta^2_p = .164$. Participants rated the partner in the sexualized profile as less traditional than both the appearance-focused and non-objectified profiles ($ps < .001$). There was no difference between the appearance-focused and non-objectified conditions ($p = .142$). There was no effect of mortality salience ($p = .211$) and mortality did not interact with the profile to influence perceptions of the partner as traditional ($p = .204$). These means are presented in Table 1.

Table 1. Means and standard deviations for UH items by profile

	Appearance-focused Profile		Sexualized Profile		Non-Objectified Profile	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Intelligent	3.67 _a	0.76	3.27 _b	1.04	3.67 _a	0.89
Conservative	3.10 _a	0.91	2.45 _b	1.10	3.15 _a	0.90
Traditional	3.15 _a	0.83	2.44 _b	1.12	3.43 _a	0.88
Neurotic	2.23 _a	0.14	2.29 _a	0.14	1.94 _a	0.14

Note: Means with the same subscript in the same row do differ significantly ($p < .05$).

There was not a main effect of the profile ($p = .920$) or mortality ($p = .382$) on perceptions of the partner as modern; there was, however, a significant mortality X profile interaction, $F(2, 155) = 5.51, p = .005, \eta^2_p = .066$. For participants shown the appearance-focused profile, MS significantly decreased perceptions of the partner as modern, compared to participants not primed with mortality ($p = .002$). Mortality did not impact perceptions of the partner in the sexualized ($p = .704$) or non-objectified profiles ($p = .198$). These means are presented in Figure 10.

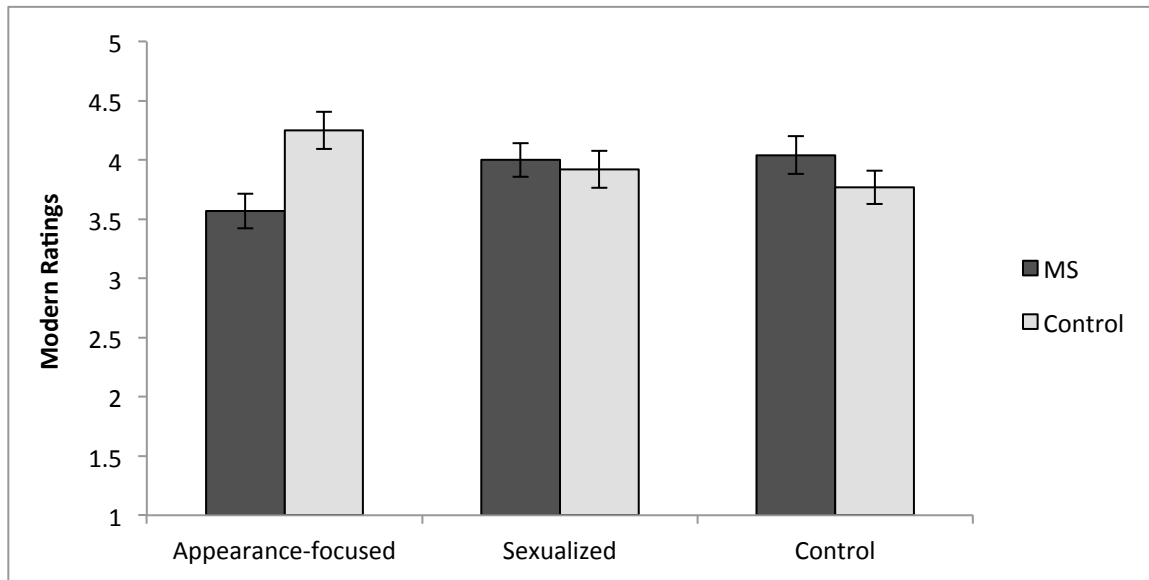


Figure 10. Modern ratings by mortality and profile

The inclusion of participant gender in the previously reported analyses did not influence the pattern of results. Additionally, controlling for positive, negative, and fear-specific affect following the mortality prime did not impact any of the significant findings.

Discussion

Study 2 was designed to build upon insights from Study 1 to shed light on when, and under what conditions, objectified women are at an increased risk of harm. Past research (Morris et al., 2016) suggests that appearance-focused objectification leads to more passive harm, whereas sexual objectification leads to more active harm. This follows from the TMT perspective that sexual objectification should exacerbate the threat associated with mortality and appearance-focused objectification should reduce it. On these bases, it was hypothesized that when mortality concerns were made salient, sexualized women would elicit aggression in response; appearance-focused objectification, on the other hand, was expected to actually

decrease the likelihood of this response. Despite the theoretical foundation for this framework, the hypotheses were not supported. There was no effect of the objectification prime on aggression towards the purported partner; additionally, mortality salience did not influence aggression, and there was no evidence of the predicted interaction between the objectification and mortality primes.

One limitation of the study that might have contributed to the lack of effects was the high level of suspicion about the paradigm. Only approximately a quarter of the sample (24.8%) reported feeling no suspicion at all; almost 38% of the sample indicated a moderately high or high level of suspicion (five or higher on a 7-point scale). Removing these participants from the analysis did not impact the results, however, this could be due to the lack of power in the reduced sample size.

Though the primary aim of the study was not to assess dehumanization of the partner, there were some items included at the end of the study that allowed for such an assessment. Five of the items (*open to new experiences, likeable, agreeable, sociable, warm*) mapped onto Haslam's (2006) dimension of human nature. Consistent with the results of Study 1, mortality salience reduced attributions of HN in the appearance-focused profile condition; there was no effect of MS in the sexualized and non-objectified profile conditions. This supports the finding of Study 1, suggesting that there is indeed something unique about appearance-focused objectification in the context of existential concerns that promotes perceptions of women as less human, more object-like.

The other items included in this scale (*intelligent, conservative, neurotic, traditional, modern*) generally reflected traits more consistent with Haslam's conceptualization of human uniqueness (i.e., traits not shared with animals; UH). Because these items had very low internal

consistency, they were not appropriate to examine as a composite score; instead, they were assessed individually. Though it is difficult to draw conclusions based on single item outcomes, generally, when there were differences, the woman in the sexualized condition was perceived to have less of these traits (i.e., intelligent, conservative, traditional), compared to the other two women. Clearly, though, “conservative” and “traditional” are confounded with sexual provocativeness. Intelligence, and the items that comprise the HN scale, however, are not seemingly related to either objectified depiction of the women. Thus, the differential effects of sexual and appearance-focused objectification on these items are supportive of the framework in which these two forms of objectification implicate two distinct types of dehumanization.

Interestingly, there was a significant interaction between the profile and mortality salience on perceptions of the partner as “modern”; MS decreased ratings of the partner in the appearance-focused profile as modern, compared to those not primed with MS. There was no effect of MS in the other conditions. It is not readily clear why this is the case; as noted in Study 1, and supported by the HN results in this study, there does seem to be something unique about the combination of mortality concerns and appearance-focused objectification that impacts dehumanization. Though “modern” seems to fall more in line with the UH dimension of the dehumanization framework, it is not a specific trait identified by Haslam (2006). Moreover, in examining the correlation between items, modern was highly correlated with all of the items on the HN composite ($r_s > .421, p_s < .001$). It was moderately correlated with “intelligence” ($r = .277, p < .01$), but was not correlated with any of the other items UH items. The effect of the profile on perceptions of the partner as modern was also distinct from the other UH items, and was consistent with the result observed on the HN scale. Thus, it is possible that “modern” might actually reflect a perception more in line with mechanistic, and not animalistic dehumanization.

Taken together, this study provides some evidence for the differential dehumanization effects of sexual, compared to appearance-focus objectification. Additionally, the ancillary results support the findings of Study 1 to suggest that existential concerns do impact appearance-focused objectification. Still, future research is needed to better understand the consequences of objectification.

GENERAL DISCUSSION

Two studies attempted to establish the role of existential concerns in objectification processes. In Study 1, participants were primed with mortality (or a control) and saw videos of targets conforming to the operationalizations of sexual objectification, appearance-focused objectification, or not objectified. They subsequently completed measures of mechanistic or animalistic dehumanization and the accessibility of death-thought was assessed. Consistent with past research (Morris et al., 2016), sexual and appearance-focused objectification of female targets led to differential dehumanization effects. Mortality salience did reduce perceptions of HN of the female target (on the composite measure) in the appearance-focused condition, but did not influence dehumanization of the sexualized target, or the subsequent accessibility of death-thought. In Study 2, participants were again primed with mortality (or a control) and shown the online profile of a purported partner in the study that depicted her as sexualized, with a focus on appearance, or not objectified. Participants then had the opportunity to aggress against her by sending an aversive film clip. In this case, the profile manipulation did not affect aggression towards the partner; there were also no main or interaction effects of mortality salience on aggression. Despite the lack of effects on the primary dependent measure, there were some findings on a secondary measure that hinted at the possibility of an existential function of objectification. Participants rated their partner's personality on several items that were generally consistent with HN and UH dimensions. As in Study 1, mortality salience reduced perceptions of HN in response to the appearance-focus profile, but not in response to the sexualized, or non-

objectified profiles. Again, UH ratings were unaffected by mortality salience. Perceiving a person to have less of the traits considered essential to human nature is consistent with perceiving them more like an object (i.e., mechanistic dehumanization; Haslam, 2006). Thus, across two studies, a consistent picture emerged: mortality concerns promoted dehumanization of women as objects, and this was specific to appearance-focused objectification. These results are in line with theorizing (Goldenberg & Roberts, 2010; 2014) and past research demonstrating that reminders of mortality impact literal objectification of women (Morris et al., 2014; Morris & Goldenberg, 2015b). The perception of women as objects should be desirable in the context of existential threat because objects—in contrast to humans and other animals—do not die.

It is unclear why mortality did not impact dehumanization of sexualized targets. From a TMT perspective, reminders of sex should be especially threatening when existential concerns are heightened because it underscores humankind's physical, animal nature (Goldenberg et al., 2000), and this is problematic in the management of mortality awareness. These studies did find that sexualized targets were perceived as more animal-like (i.e., animalistically dehumanized), but MS did not further exacerbate this. As noted above, it's possible that priming mortality could create competing motivations (that is, perceptions of sexualized targets as animal-like; a desire to distance from such perceptions because it is threatening). However, the role of existential concerns in the dehumanization of sexualized targets remains ambiguous.

Measures of Dehumanization

One limitation of these studies concerns inconsistencies across the measures of dehumanization. In Study 1, participants first rated the targets on traits identified by Haslam (2006) as representing human nature (e.g., sociable, emotional, sincere) and human uniqueness (e.g., polite, civilized), and these were averaged to create composite of the two types of

humanness. In the next assessment of dehumanization (based on the procedure of Paladino & Vaes, 2009), participants were asked to rate the same traits on how essential they are to human nature or how unique they are humans. Within-person correlations were conducted between the target ratings and humanness ratings. Thus, the first measure is about perceptions of a target on *specific* traits; the second measure is not about perceptions on any particular items, but rather, the relationship between perceptions of the target and perceptions of these two forms of humanness. These two assessments should be conceptually consistent; that is, they should both measure mechanistic and animalistic dehumanization. In some instances, the results were consistent across the measures. The general dehumanization of Usher when he was objectified (both by a focus on appearance or sexualized), compared to the non-objectified condition, was observed on the HN/UH composites and on the correlation measure. When Beyoncé was sexualized, she was ascribed fewer UH traits and animalistically dehumanized more (on the correlation measure); similarly, when Beyoncé was depicted with a focus on her appearance, she was ascribed fewer HN traits and mechanistically dehumanized (on the correlation measure). One obvious inconsistency, however, emerged on the effect of mortality salience. Though MS affected HN ratings in response to appearance-focused objectification (of Beyoncé), it had no effect on the within-person correlation measure of mechanistic dehumanization. It is not readily clear why this is that case; one possibility is that because the correlation measure was randomized between subjects, and only half of the participants completed the humanness ratings for the mechanistic dehumanization scale, the smaller sample size lacked power to detect the effect (and indeed, the interaction effect on the HN ratings composite was small, $\eta^2_p = .020$). It's also possible that priming mortality influenced responses to the subsequent humanness scales, though examination of the data did not indicate evidence of this.

In Study 2, dehumanization was inferred by the assessment of the purported partner's personality characteristics. Though these items were not intended to measure mechanistic and animalistic dehumanization, they can generally be grouped into these categories. The results on these measures replicated the effect on the HN and UH composites in Study 1.

The HN/UH composite ratings in Study 1 and the partner perception ratings in Study 2 are clear and objective measures of person perceptions, and for the most, the results on these assessments were consistent with one another. The HN/UH correlation measure is, in some way, more vague. Though it has been used in past research (Paladino & Vaes, 2009; Heflick et al., 2011), and is unique in that it allows for a more subjective assessment of humanness (and dehumanization), this may impact the variability of the scale, making it a less stable measure of dehumanization. The two human nature scales were significantly correlated ($r(283) = .352, p < .001$), as were the two uniquely human scales ($r(291) = .402, p < .001$), however, it was not as strong of a relationship as might be expected. This suggests that the two measures likely capture some distinct features associated with dehumanization. As noted above, researchers have a variety of tools for measuring perceptions (and dehumanization) of objectified targets (e.g., the SCM; Fiske et al. 2002; mind perception model of experience and agency; Gray et al., 2007). An important next step in the line of research is to systematically understand where these measures overlap, where they diverge, and critically, how objectification impacts perceptions across these domains.

Consequences of Objectification

A primary goal of Study 2 was to establish the consequences of objectification, specifically with a focus on the implications for aggression and harm. Sexual objectification—and not appearance-focused objectification—was expected to increase aggression towards the

woman under conditions of mortality salience. This hypothesis was derived from the TMT premise that sexualized women are especially threatening when death is primed (Landau et al., 2006), and prior research showing that people are more willing to harm sexualized women (Loughnan et al., 2010; Morris et al., 2016). In this study, there was no evidence for increased aggression towards a woman as a function of objectification or mortality salience. This discrepancy might be attributed to the type of aggression being measured; in the study by Loughnan and colleagues (2010), the researchers asked participants to give the target “pain inducing tablets.” Similarly, the research by Morris and colleagues (2016) instructed participants to decide on an appropriate amount of shock voltage to administer. Both of these measures are clearly about inflicting physical pain on a person. In the current study, participants had the opportunity to send their partner an aversive film clip to watch. Presumably it was clear that this would inflict psychological, and not physical, discomfort. Though it is possible that the lack of effects on this measure could be attributed to methodological flaws (i.e., suspicion), it is also worth considering the notion that the sexual and appearance-focused objectification might implicate specific types of aggression (i.e., physical) and not others (e.g., psychological, instrumental).

Conclusions

This research provides critical converging evidence for a distinction between sexual and appearance-focused objectification. Moreover, these results add to a growing body of literature demonstrating the existential function of (literal) objectification. Though many aspects of the phenomenon remain ambiguous, these findings begin to shed light on the possible motives to objectify, and subsequently dehumanize, women. By understanding the motivation to objectify women, better predictions can be made to address to the risks they face as a result.

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APPENDICES

Appendix A: Mortality Salience Prime

Please read each of the following questions and then select “True” if it is true for you, or “False” if it does not apply to you.

	True	False
I am very much afraid to die.	<input type="radio"/>	<input type="radio"/>
The thought of death seldom enters my mind.	<input type="radio"/>	<input type="radio"/>
It doesn't make me nervous when people talk about death.	<input type="radio"/>	<input type="radio"/>
I dread to think about having to have an operation.	<input type="radio"/>	<input type="radio"/>
I am not at all afraid to die.	<input type="radio"/>	<input type="radio"/>
I am not particularly afraid of getting cancer.	<input type="radio"/>	<input type="radio"/>
The thought of death never bothers me.	<input type="radio"/>	<input type="radio"/>
I am often distressed by the way time flies so very rapidly.	<input type="radio"/>	<input type="radio"/>
I fear dying a painful death.	<input type="radio"/>	<input type="radio"/>
The subject of life after death troubles me greatly.	<input type="radio"/>	<input type="radio"/>
I am really scared of having a heart attack.	<input type="radio"/>	<input type="radio"/>
I often think about how short life really is.	<input type="radio"/>	<input type="radio"/>
I shudder when I hear people talking about a World War III.	<input type="radio"/>	<input type="radio"/>
The sight of a dead body is horrifying to me.	<input type="radio"/>	<input type="radio"/>
I feel that the future holds nothing for me to fear.	<input type="radio"/>	<input type="radio"/>

Please read each of the following questions and then select “True” if it is true for you, or “False” if it does not apply to you.

	True	False
I am very much afraid of being in pain.	<input type="radio"/>	<input type="radio"/>
The thought of severe pain seldom enters my mind.	<input type="radio"/>	<input type="radio"/>
It doesn't make me nervous when people talk about being in pain.	<input type="radio"/>	<input type="radio"/>
I dread to think about having to have a painful operation.	<input type="radio"/>	<input type="radio"/>
I am not at all afraid of severe pain.	<input type="radio"/>	<input type="radio"/>
I am not particularly afraid of getting a painful medical condition.	<input type="radio"/>	<input type="radio"/>
The thought of severe pain never bothers me.	<input type="radio"/>	<input type="radio"/>
I am often distressed by how much pain I can feel.	<input type="radio"/>	<input type="radio"/>
I fear not being able to stop the pain.	<input type="radio"/>	<input type="radio"/>
The subject of severe pain troubles me greatly.	<input type="radio"/>	<input type="radio"/>
I am really scared of experiencing severe pain.	<input type="radio"/>	<input type="radio"/>
I often think about how severe pain can be.	<input type="radio"/>	<input type="radio"/>
I shudder when I hear people talking about a very painful disease.	<input type="radio"/>	<input type="radio"/>
The sight of someone in severe pain is horrifying to me.	<input type="radio"/>	<input type="radio"/>
I feel that the future will be relatively pain free for me.	<input type="radio"/>	<input type="radio"/>

Appendix B: PANAS-X

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

1 very slightly or not at all	2 a little	3 moderately	4 quite a bit	5 extremely
_____ cheerful	_____ sad	_____ active	_____ angry at self	
_____ disgusted	_____ calm	_____ guilty	_____ enthusiastic	
_____ attentive	_____ afraid	_____ joyful	_____ downhearted	
_____ bashful	_____ tired	_____ nervous	_____ sheepish	
_____ sluggish	_____ amazed	_____ lonely	_____ distressed	
_____ daring	_____ shaky	_____ sleepy	_____ blameworthy	
_____ surprised	_____ happy	_____ excited	_____ determined	
_____ strong	_____ timid	_____ hostile	_____ frightened	
_____ scornful	_____ alone	_____ proud	_____ astonished	
_____ relaxed	_____ alert	_____ jittery	_____ interested	
_____ irritable	_____ upset	_____ lively	_____ loathing	
_____ delighted	_____ angry	_____ ashamed	_____ confident	
_____ inspired	_____ bold	_____ at ease	_____ energetic	
_____ fearless	_____ blue	_____ scared	_____ concentrating	
_____ disgusted with self	_____ shy	_____ drowsy	_____ dissatisfied with self	

Appendix C: Objectification Primes (video links)

Beyoncé – Appearance-focused condition: <https://www.youtube.com/watch?v=GpaYjZYSdDI>

Beyoncé – Sexualized condition: https://www.youtube.com/watch?v=IWd_5KMaJAw

Beyoncé – Non-objectified condition: <https://www.youtube.com/watch?v=cELBD6xAktI>

Usher – Appearance-focused condition: <https://www.youtube.com/watch?v=DO2vtI1mK8c>

Usher – Sexualized condition: <https://www.youtube.com/watch?v=P3LTGRgtQyE>

Usher – Non-objectified condition: <https://www.youtube.com/watch?v=95D8r2JxucI>

Appendix D: PANAS

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

1
very slightly
or not at all

2
a little

3
moderately

4
quite a bit

5
extremely

___ interested

___ irritable

___ distressed

___ alert

___ excited

___ ashamed

___ upset

___ inspired

___ strong

___ nervous

___ guilty

___ determined

___ scared

___ attentive

___ hostile

___ jittery

___ enthusiastic

___ active

___ proud

___ afraid

Appendix E: Dehumanization Scales

How much do you think the following traits are typical of the person you just viewed in the video?

	Very Atypical	Somewhat Atypical	Neither Typical or Atypical	Somewhat Typical	Very Typical
Competent					
Passionate					
Tolerant					
Active					
Idealistic					
Impatient					
Sociable					
Ambitious					
Fun-Loving					
Refined					
Impulsive					
Friendly					
Humble					
Conservative					
Helpful					
Curious					
Polite					
Artistic					
Thorough					
Imaginative					

Which of the following traits are essential to human nature (what most characterizes being human)? To respond, select the button of the scale that corresponds with your opinion.

The further to the right your response is, the more you think that the trait is a fundamental aspect of human nature.

	Not at all essential to Human Nature	Somewhat not essential to Human Nature	Neither Essential or Unessential to Human Nature	Somewhat Essential to Human Nature	Very Essential to Human Nature
Competent					
Passionate					
Tolerant					
Active					
Idealistic					
Impatient					
Sociable					
Ambitious					
Fun-Loving					
Refined					
Impulsive					
Friendly					
Humble					
Conservative					
Helpful					
Curious					
Polite					
Artistic					
Thorough					
Imaginative					

Which of the following traits are experienced solely by human beings and not experienced by animals? To respond, select the button of the scale that corresponds with your opinion.

Note that answers further to the right increasingly indicate that you think the trait is an exclusive and unique expression of what it means to be human (and not shared with other animals).

	Entirely Shared with Animals	Somewhat Shared with Animals	Neither Shared with Animals nor Unique to Humans	Somewhat Unique to Humans	Very Unique to Humans
Competent					
Passionate					
Tolerant					
Active					
Idealistic					
Impatient					
Sociable					
Ambitious					
Fun-Loving					
Refined					
Impulsive					
Friendly					
Humble					
Conservative					
Helpful					
Curious					
Polite					
Artistic					
Thorough					
Imaginative					

Please indicate how desirable each of the following traits would be to have.

	Very Undesirable	Somewhat Undesirable	Neither Desirable nor Undesirable	Somewhat Desirable	Very Desirable
Competent					
Passionate					
Tolerant					
Active					
Idealistic					
Impatient					
Sociable					
Ambitious					
Fun-Loving					
Refined					
Impulsive					
Friendly					
Humble					
Conservative					
Helpful					
Curious					
Polite					
Artistic					
Thorough					
Imaginative					

Appendix F: DTA Measure

On the following page, you will see word fragment puzzles. Please complete the puzzle by typing the word in the blank that completes the fragment, using only one letter per blank.

Type the first word that comes to your mind. Some words may be plural. For example, if you see the fragment H__SE, you might type the word "HORSE" in the space provided. You could also solve this puzzle by typing the word "HOUSE". There are no right or wrong answers; simply respond with the first word that comes to mind.

CO__S

M__N

__OK

WAT__

FO__

DE__

BO__

B__T__LE

__ASS

P__TURE

FL__W__R

KI__**ED**

K__GS

CHA__

CL__K

COFF__

LA__

W__DOW

__DE

SK__**L**

P__P__R

MOV__

TR__

CA__

CO__**SE**

Note: Bold and italicized fragments represent the critical words that could be completed with death-related or neutral content (*dead, killed, coffin, skull, corpse*).

Appendix G: Demographics

Please indicate the unique ID code that was generated for you in the HIT. Note: This is not your Amazon Work ID: _____

What is your gender? Female Male

Please indicate your age: _____

Please identify your ethnic group:
Hispanic or Latino
Not Hispanic or Latino

Please identify your race:
American Indian or Alaska Native Native Hawaiian or other Pacific Islander
Asian White
Black or African American More than one race

What is your sexual orientation?
Heterosexual
Homosexual
Bisexual
None of these

What is your relationship status?
Single, never married
In a committed relationship
Cohabiting
Married
Separated
Divorced
Widowed

Is English your primary language?
No Yes

Did you have any trouble understanding any of the language in this study?
No Yes

In your own words, what was the purpose of the study?

Do you have any thoughts or feelings about this study? _____

Appendix H: Movie and Media Preference Questionnaire and Partner Results

For the next portion of the experiment, you and your partner will be participating in a movie and media preferences task. First you will both answer some questions about your media preferences. Then based off of your responses the computer will generate summaries of your media preferences and send those to one another. That is, you will receive a summary of your partner's media preferences and she or he will receive a summary of your media preferences. .

Below are several questions that ask about your movie and media preferences.

	Strongly Disagree	2	3	4	Strongly Agree
I like to watch television and/or movies.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like television news programs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like movies and/or TV shows with a lot of suspense (e.g., a detective show, a "scary" movie).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like movies and/or TV shows that make me laugh (e.g., comedies).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like horror movies and/or TV shows.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Strongly Disagree	2	3	4	Strongly Agree
I like movies and/or TV shows with lots of action.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I watch a movie, it is usually rated "R."	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I decide to watch a movie, it is usually because there is a lot of action in it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I watch movies, I like the feeling of suspense or being "scared".	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am a fan of "reality" TV shows.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Strongly Disagree	2	3	4	Strongly Agree
If I have to choose between an action movie and a horror movie, I will choose the action movie.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If a movie has a lot of cuss words I won't watch it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If a movie has a lot of killing/blood, I won't watch it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I have to choose between a suspenseful "thriller" movie and a comedy, I will choose the comedy movie.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Movie and Media Preference Summary for: Jillian89

Jillian89's responses indicated significant liking for media content containing comedy and action. Jillian89 also indicated liking for reality television.

Jillian89 does not like horror films. Jillian89 typically does not watch movies or television programs that are scary, gory, or suspenseful. For example, on the statement "When I watch movies, I like the feeling of suspense or being scared." Jillian89 indicated a strong level of disagreement.

Appendix I: Aggression Paradigm Video Selection

On the next page, you will see images from two movie clips along with brief descriptions of the scene. Please read the entire description and look at each image. Your task is to determine which clip you'd like your partner in the study to watch.

Below are a series of images that represent one film clip selection option and a brief summary.



In the first ten seconds of this clip, a man and a woman meet inside a hotel. The man, a chef, quickly recognizes the female as a well known food critic, and invites her to cook with him in the hotel kitchen. The remainder of the clip involves the two sharing their favorite recipes while they share stories and cook.

Below are a series of images that represent one film clip selection option and a brief summary.



In the first ten seconds of the clip, a woman arrives home and gets ready for bed. As she turns off her hallway light, a figure can be seen in the shadows. When she turns on the light, it appears nothing is there. The woman then gets into bed, but is she awakened by the sound of her door slowly opening. When she turns on her bedside lamp the figure in the shadows is now at the side of her bed.

Your partner will watch 120 seconds of movie footage. You can select how much of each clip you want your partner to watch. For example, if you select to have your partner watch 100 seconds of Film Clip 1, he or she will watch 20 seconds of Film Clip 2.

The total duration that you select cannot exceed 120 seconds, but you can divide this time however you choose.

Film clip 1



Film clip 2



Please select how long you would like the other participant to view each movie clip (0 to 120 seconds).

	0	20	40	60	80	100	120
How long do you want your partner to watch each clip?	<div style="display: flex; align-items: center;"> <div style="margin-right: 5px;">0 seconds of FILM CLIP 1 / 120 seconds of FILM CLIP 2</div> <div style="margin-right: 5px;">60 seconds of FILM CLIP 1 / 60 seconds of FILM CLIP 2</div> <div>120 seconds of FILM CLIP 1 / 0 seconds of FILM CLIP 2</div> </div>						
	<input type="range" value="0"/>						



Appendix J: IRB Approval Letter



RESEARCH INTEGRITY AND COMPLIANCE
Institutional Review Boards, FWA No. 00001669
12901 Bruce B. Downs Blvd., MDC035 • Tampa, FL 33612-4799
(813) 974-5638 • FAX(813)974-7091

12/22/2015

Kasey Morris, B.A.
Psychology
4202 East Fowler Ave, PCD4118G
Tampa, FL 33620

RE: Full Board Approval for Initial Review

IRB#: Pro00024472

Title: Beauty, Sex, and Death: The Role of Mortality Salience in Objectification Processes

Study Approval Period: 12/11/2015 to 12/11/2016

Dear Ms. Morris:

On 12/11/2015, the Institutional Review Board (IRB) reviewed and **APPROVED** the above application and all documents contained within, including those outlined below.

Approved Item(s):

Protocol Document(s):

[Study Protocol](#)

Consent/Assent Document(s):

[Consent Form - Study 1.docx](#)

[Consent Form - Study 2.docx](#)

Your study qualifies for a waiver of the requirements for the documentation of informed consent as outlined in the federal regulations at 45CFR46.117(c) which states that an IRB may waive the requirement for the investigator to obtain a signed consent form for some or all subjects if it finds either: (1) That the only record linking the subject and the research would be the consent document and the principal risk would be potential harm resulting from a breach of confidentiality. Each subject will be asked whether the subject wants documentation linking the subject with the research, and the subject's wishes will govern; or (2) That the research presents no more than minimal risk of harm to subjects and involves no procedures for which written consent is normally required outside of the research context.

As the principal investigator of this study, it is your responsibility to conduct this study in accordance with IRB policies and procedures and as approved by the IRB. Any changes to the approved research must be submitted to the IRB for review and approval via an amendment. Additionally, all unanticipated problems must be reported to the USF IRB within five (5) calendar days.

We appreciate your dedication to the ethical conduct of human subject research at the University of South Florida and your continued commitment to human research protections. If you have any questions regarding this matter, please call 813-974-5638.

Sincerely,

A handwritten signature in cursive script that reads "John A. Schinka, Ph.D.".

John Schinka, Ph.D., Chairperson
USF Institutional Review Board