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## From Immortal to Mortal: Objectification and Perceptions of a Woman's Soul

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**From Immortal to Mortal:  
Objectification and Perceptions of a Woman's Souls**

by:

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A dissertation submitted in partial fulfillment of the requirements for the degree of  
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## **Abstract**

Objectification most literally refers to perceiving a person as an object. Research shows that when people focus on a woman's appearance, compared to her personality, she is perceived of as more of an object (e.g., lower in human nature traits). These objectification effects, however, rarely occur for male targets. Moreover, humans, unlike objects, are typically believed to have a soul, that is, some part of the self that outlasts the death of the physical body and extends into a post-mortem existence (e.g., Heaven). In turn, I hypothesized that women, but not men, would be perceived as having less soul when focus is on their physical appearance, and that this will be mediated by human nature traits. Partially supporting these hypotheses, in Study 1, males and females were perceived as having (marginally) less of a soul when focus was on their appearance; however, there was no effect of appearance focus on human nature ratings for male or female targets. In Study 2, using a different manipulation of appearance focus and measure of soul ratings, the same findings emerged. In Study 3, focusing on a woman's appearance elicited heightened psychological need for structure and worldview defense when evidence was provided that she had a soul, compared to when evidence was provided that she did not have a soul. This indicates that a woman having a soul is less coherent and meaningful than a woman not having soul when focus is on her appearance. The discussion centers on possible mechanisms for these findings, as well as why the effects were found for male in addition to female targets. Limitations, future directions, and implications are also addressed.

## **Introduction**

### **Background**

Belief in life after death requires a commitment to dualism, that is, the belief that the self is part physical body, which dies, and part soul, which lives on.<sup>1</sup> These beliefs appear to be deep rooted in the human psyche; even the earliest forms of humanity believed in a soul (Segel, 2004). Further, evolutionary psychologists (e.g., Atran & Norenzayan, 2004; Barret, 2000; Boyer, 2001) have argued that afterlife beliefs are the by-product of a cognitive framework that errs on the side of detecting potential harm. Because some harm, such as natural disasters, cannot be explained by human causes (especially before the advances of science), people believe that spirits, or God(s), are the cause, which naturally leads to the belief that there is an existence beyond this life. Perhaps not surprisingly then, and although the beliefs vary in their specifics, people worldwide believe in life after death, and in some regions, this rate is over 95% (e.g., Barber, 2011; Lester, 2002). Further, empirical research suggests that afterlife beliefs, which require belief in a soul, protect people psychologically from perhaps the deepest human fear: death (Edmondson, Park, Chaudoir, & Wortmann, 2008; Dechesne et al., 2003), even for people who do not explicitly report believing in life after death (Heflick & Goldenberg, in press). Thus, the belief in a soul appears to be a deep rooted human belief with strong motivational underpinnings.

But are all entities perceived to have a soul? Eastern religions often teach that the soul continues through multiple lives, and can be transferred from humans to animals and

objects during reincarnation. However, outside of that tradition, the answer appears to be no. Research (using Western participants) supports this assertion; animals, and especially objects, are perceived to have fewer “mind traits” (i.e., consciousness and emotions; Gray, Gray & Wegner, 2007), and these traits are positively correlated with being perceived to have a soul (Gray, Gray & Wegner, 2007). Even comparing within the human species, some groups, such as adults, are perceived to have more mind traits than others (and hence probably more soul), such as children (Gray, Gray & Wegner, 2007). Thus, the soul may be assigned differently to different humans and is not typically ascribed to other entities, such as animals and especially not to objects.

Plato, Bishops in ancient France, St. Augustine, and modern day internet forum posters are among those who have debated if women have souls. But what could cause people to exclude women from this deeply held belief? Research shows that when focus is on a woman’s appearance, she is perceived as less warm and intelligent (Heflick & Goldenberg, 2009; Heflick, Goldenberg, Cooper & Puvia, 2011), which people perceive to separate humans from objects (Harris & Fiske, 2006; Haslam, 2006). Objects are perceived to lack a soul (Gray, Gray & Wegner, 2007), so when a woman is objectified as a result of focus on her appearance, it is possible that people would perceive her as less likely to have a soul. People have more moral concern for entities that are perceived to have souls (Gray, Gray & Wegner, 2007). Thus, the strong cultural emphasis on women’s appearance may lead to detrimental consequences for how women are treated and perceived in this life, but possibly, additionally, how they are perceived in the next life.

### **Soul Perceptions**



Bering and colleagues (Bering & Bjorklund, 2004; Bering, Hernandez-Blasi & Bjorklund, 2005) have asked children and adults what they think continues to exist in a being once it is physically dead. They find that the majority of children and adults (though adults less so) adhere to a rather strict body-self dualism separating the physical from the non-physical self. That is, they believe that emotional traits such as joy, pleasure and pain, as well as mental traits such as planning, thought, and knowledge, continue when the body dies. However, more biological and purely sensory states (that are physical), such as having to use the restroom and being hungry or thirsty, do not persist. Further supporting this dualism, even when people attribute physical traits to dead agents, compared to emotional and mental, they show a delayed response time, suggesting there is cognitive interference in attributing physical traits to people once they are dead (Bering, 2002). This is the case even for self-reported extinctionists (who do not report believing in a soul; Bering, 2002).

Supporting the idea that this propensity for dualism is evolved, children tend to be more dualistic than adults (Bering et al., 2005; though adults are still dualistic), indicating that this dualism is inborn and not culturally learned (if it were, adults, having spent more time immersed in the culture, should be more dualistic). From this perspective, people separate the mental and emotional qualities of people from their basic biology and physicality, and this is reflected in what people perceive to make up a soul. For these scholars, this is believed to largely occur because humans cannot adequately know what it is like to be dead, so lacking this knowledge (but aware that the body dies), they have a tendency towards dualism.

One other line of research has addressed what people perceive of as a soul (Richert & Harris, 2008). In this study, the distinction was made not just between body and mind, but also between body and soul. Specifically, these researchers found that people are not likely to assign physical states to minds or souls, or emotional (e.g., joy, pleasure) or mental states (e.g., knowing, thinking) to bodies. However, when comparing the mind and the soul, people were more likely to believe that the soul has emotional qualities as well as spiritual qualities (e.g., a “spiritual essence”). In contrast, the mind was believed to have more mental properties than the soul. However, both mental and emotional traits were believed to be a part of the soul.

It is clear that people do perceive others as having souls and that souls are (perceived to be) comprised of emotional, mental and spiritual qualities. However, do people make attributions as to how much soul an entity has? Research by Gray and colleagues (2007) addresses this question indirectly. They asked what people perceive as characterizing the “mind” and then asked people what beings have these traits. They found that humans are perceived as having more mind, relative to animals (like a frog or a chimpanzee), and objects (like a robot), and that objects were believed to lack a mind. They also found that perceptions of humans having a mind differed by category (e.g., child, adult, infant). Perceptions of mind correlated positively, and highly, with the perception that a being has a soul. Because objects were perceived of as lacking mind, and this correlated with perceptions that a being has a soul, this validates the notion that people perceive objects as lacking a soul.

In summary, people believe that some traits persist after death. Specifically, the soul is believed to contain mental properties, such as planning and thought, but especially

emotional and experiential qualities, and a sense of “spirit.” In contrast, the soul is not typically perceived to include physical traits. People also attribute the soul differently to objects and people, and to different categories of people.

### **Objectification**

The philosopher Martha Nussbaum (1999) defined objectification as a basic denial of humanity, by treating or perceiving a person as if they are an object. For Nussbaum, objectification consists of behaviors and attitudes that (1) deny and minimize the emotional needs and experiences of others and (2) deny their talents, intelligence and agency.

Empirically, several lines of research confirm Nussbaum’s definition that emotion and agency are the primary ways people separate humans from objects, tools and machines. For instance, Haslam and colleagues (e.g., 2002) asked people what is most essential to human nature. These traits reflect competence/agency, such as higher order intelligence and creativity, but they especially reflect emotions, such as warmth, passion and drive. These human nature traits are perceived to separate humans from objects and machines; for instance, people are quicker to pair groups perceived as low in human nature traits with object words in an IAT, compared to groups perceived as high in human nature words (Loughnan & Haslam, 2007). They also assign a group less human nature when told that they act similar to objects and automata (Loughnan, Haslam & Kashima, 2009). Human nature traits are also perceived to reflect depth, as opposed to superficiality, are perceived to be deep rooted in early human development, and are assigned more to the self than others (Haslam et al., 2002).

Research based on the Stereotype Content Model (Fiske, Cuddy, Glick & Xu, 2002) also suggests that objectification is linked to perceptions of agency/competence and emotional qualities. From this perspective, warmth and competence are associated with person perception because it is essential to human survival to know another person's intentions (warmth), and their ability to carry out those intentions (competence). In turn, as much as 95% of a group member's global impression of another person can be predicted by their perceived warmth and competence (Wojciszke, 2005). Groups that are perceived as low in *both* competence and warmth elicit the desire for active harm and avoidance (Cuddy, Fiske, & Glick, 2007). And moreover, images of these groups fail to elicit the medial prefrontal cortex (Harris & Fiske, 2006), which is associated with recognizing and distinguishing between human faces, empathy towards humans and forming impressions of others (e.g., Liebenluft, Gobbini, Harrison & Haxby, 2004; Mason & Macrae, 2004; Ochsner et al., 2004). In Harris and Fiske's research (2006), images of all other groups (judged to be high in both dimensions or high in one and low in the other) elicited activity in the mPFC, but images of objects, such as desks and pencils, did not. Because only the images of objects and of the people who were judged to be low in competence and warmth failed to elicit the mPFC, this suggests that people who are judged to be low in competence and warmth are dehumanized at a basic neural level.

Research by Gray and colleagues (2007) on dimensions of mind perceptions also suggests that people associate humanity, as distinct from objects, with dimensions associated with emotions and competence/agency. In their work, they have asked thousands of people to rate traits on whether or not each trait is essential to a mind. They

found that these traits generally loaded onto two dimensions: Experience and Agency. Experience reflects (generally) more emotional and experiential traits (e.g., pleasure, pain, fear) and agency reflects (generally) more cognitive and agentic traits (e.g., self-control, thought, planning). When asked if certain entities had these traits, objects, such as a robot, scored low on agency traits, and especially low on experience traits, relative to human adults, male or female. This suggests that people perceive the mind as human, and not as part of an object.

### **Summary so Far**

People perceive a soul as having emotional and spiritual qualities, and (though to a lesser extent) mental properties. People perceive that emotional and mental qualities distinguish humans from objects, tools and other automata. And further, people do not perceive that objects have souls (Gray, Gray & Wegner, 2007). It follows that anything that promotes the perception of a human as an object should, in turn, increase the perception that that human lacks a soul.

### **Appearance Focus and Objectification**

Research suggests that focusing on a woman's appearance, compared to her as a person, increases the perception that she is an object. Heflick and Goldenberg (2009) had participants focus either on Sarah Palin's or Angelina Jolie's appearance or personhood. They then had people rate Palin or Jolie on how typical several traits were of their personality, and then had participants rate those same traits on how essential they are to humanity (Haslam, 2006). Results indicated that, when focus was on Sarah Palin's or Angelina Jolie's appearance, the correlation between the perceived human nature of those traits and the typicality of those traits was close to 0, compared to .27 in the person

condition. In other words, people rated Jolie or Palin as lower in human nature (which is believed to separate humans from objects; Loughnan & Haslam, 2007) when focused on her appearance.

Other research also indicates that people perceive women as more of an object when focus is on their appearance. Cikara, Eberhardt and Fiske (2011) had men look at images of sexualized or clothed women. fMRI data indicated that men (high in hostile sexism) did not show brain activation in the mPFC, which other research shows is activated by people, but not objects (Harris & Fiske, 2006). Further, men were best at remembering the bodies of sexualized women, relative to their faces, and the bodies and faces of clothed women.

Research also shows that when focus is on a woman's appearance she is perceived as less warm (e.g., likeable, kind), which is a key dimension perceived to separate people from objects (Haslam, 2006). Heflick and colleagues (2011) had participants focus on the appearance of a woman delivering a news clip or a weather forecast, or focus on the video clip itself. When people were focused on the clip, as opposed to the woman's appearance in the clip, they rated the woman as warmer (more kind, likeable and friendly). A follow up study found the same results when people focused on an image of a woman (Michelle Obama) compared to her personality.

In addition, women are perceived as less competent when focus is on their appearance. Rudman and Borgida (1997) had participants look at half-dressed pictures of women, and then had them rate a female experimenter. They found that she was perceived as less competent in the sexual image condition. Similarly, Loughnan and colleagues (2010) found that sexualized images of women cause those same women to be

perceived as less competent, and Heflick and colleagues (2009, 2011) found that focus on a modestly dressed woman's appearance, compared to her as a person, reduced her perceived competence. There also is evidence that wearing a lot of make-up, which presumably heightens appearance focus, is associated with less perceived competence in women (Glick, Weber, Johnson & Bransiter, 2005).

Taken together, this body of research suggests that a focus on women's appearance leads them to be perceived as more object-like, and to lack warmth and competence, which also are perceived to separate humans from objects. In turn, women should be perceived as also having less of a soul when focus is on their appearance.

### **Males versus Females**

Are male targets objectified when focus is on their appearance, and in turn, also hypothesized to have less of a soul? In short, it does not appear that focusing on a man's appearance is objectifying, so perceptions of men's souls should be unaffected by a focus on their appearance. Specifically, Heflick and colleagues (2011) found that focusing on a man's appearance does not impact the man's perceived warmth or competence (which are perceived to separate humans from objects; Haslam, 2006). This is consistent with research on self-objectification (Fredrickson & Roberts, 1997), showing that, in contrast to women, when men focus on their own appearance, they do not show reduced cognitive abilities, body shame or restricted eating (e.g., Fredrickson et al., 1998). It also is consistent with research showing that when men are sexualized, they are not dehumanized by being more likened to animals (as women are; Vaes, Paladino & Puvia., 2011, but see Loughnan et al., 2010).

Heflick and colleagues (2011) argued that men are not objectified when focus is on their appearance because appearance is not as essential to a man's social and reproductive worth as it is to a woman's. From a socio-cultural perspective, women and men are taught at a young age that a woman's physical appearance is critically important. This message is presented by parents (especially mothers), who are more likely to emphasize their daughter's appearance than their son's appearance (Striegel-Moore & Kearney-Cooke, 1994), and through media, where women are more likely to be depicted in ways that emphasize their appearance (e.g., wearing provocative clothing) and their bodies (e.g., without showing their face; Archer et al., 1983). From an evolutionary perspective, women's appearance plays a more central role in their reproductive success than men's appearance (which relies more on status and wealth; e.g., Buss, 1989). Because women want to survive and reproduce, it has been argued that they have evolved a tendency to value their appearance more than men (e.g., Buss, 1989). Although differing from the socio-cultural accounts in the roots and motivations, the evolutionary and socio-cultural accounts converge in suggesting that men's appearance is less important than women's appearance. In turn, when focus is on a woman's appearance, she is more likely to be objectified than a man when focus is on his appearance.

### **Alternative Explanations**

If appearance focus is found to reduce perceptions of a woman's soul, it could be (as hypothesized) because women are perceived as more of an object when focus is on their appearance. However, it could also be argued that this effect is due to a cognitive focus on women's physicality. Bering's research (e.g., 2002) suggests that people are naturally dualistic, that is, they perceive humans as part mortal, physical body and part



immaterial mind (or spirit). From this view, perhaps focusing on a woman's appearance could reduce perceptions of her soul because the person is focusing on that aspect of her that is not perceived as immortal (the physical), or on that which is not (perceived as) the mind (Gray, Knobe, Sheskin, Bloom & Barret, in press). If this were the case, then it should be that focusing on the physical would, regardless of target, would be objectifying, because objects lack souls, and further, that focusing on the physicality of a person should reduce belief in an afterlife, where souls reside.

Research suggests that neither are the case. Goldenberg, Heflick, Hart and Kamp (under review) found that focusing on one's physical body and appearance did not in itself reduce belief in an afterlife; it only did so if mortality was also salient. Assuming that people think that other people will be with them in an afterlife, this suggests that physical focus should not impact perceptions of another person's soul because of physical focus. Further, as discussed above, research (Heflick et al., 2011) showed that when people focused on a man's appearance, he was not perceived as lacking warmth and competence and morality (which a soul is believed to have, Bering, 2002). If it is merely focusing on the physical that elicits perceptions that that an entity lacks a soul, then focusing on the appearance of a male target should reduce his perceived warmth, morality and competence, as when the target is a woman.

Another possibility is that focusing on the appearance of a woman, for women, is a self-esteem threat, which causes them to denigrate the target person more (i.e., rate her as more like an object, as less warm and competent). There is, for instance, evidence that when women degrade a clearly competent woman's warmth (a CEO) and, compared to when they do not, this bolsters their self-esteem (Parks-Stamm et al., 2008). There also is

ample evidence that esteem threats, like failure, do lead to denigrating others (for review see, Willis, 1981). However, Heflick and colleagues (2011) found that focusing on a woman's appearance did not cause participants to rate that woman as less attractive, though it did lead them to rate her as less warm and competent. And moreover, they found that when focusing on a woman's appearance that no one rated as "attractive" or "very attractive," people perceived her as less competent and warm. There also were no differences in these effects between male and female participants. It does not appear then, that the objectifying effects of appearance focus for women are entirely on account of self-esteem concerns triggering a general degradation of women.

Lastly, it has been suggested that these effects of appearance focus occur because it heightens stereotyping of the person being perceived (Rudman & Borgida, 1995). Supporting this, focusing on a woman's appearance reduces her perceived competence, and women are stereotyped as less competent than men (Eagly & Mladinic, 1989). However, there is no evidence that men are perceived as more competent when focus is on their appearance (Heflick et al., 2011) and there is even evidence for the opposite (Loughnan et al., 2010). And further, there is evidence that women are perceived as *lower* in warmth when focus is on their appearance (Heflick et al., 2011) though warmth is stereotypically feminine (Eagly & Mladinic, 1989). In turn, the findings of reduced perceptions of warmth and competence cannot be explained by appearance focus activating stereotypes unique to the professional female targets used in these studies.

### **Overview and Hypotheses**

Because people perceive objects as lacking a soul (Gray et al., 2007), and because appearance focus elicits objectification for female targets (Heflick & Goldenberg, 2009),

I hypothesized that focusing on a woman's appearance will reduce the perception that she has a soul. And further, this will be mediated by the perception that she is an object (e.g., lacks human nature; Haslam, 2006). Because men are not typically objectified when others focus on their appearance, these same effects are not expected to occur for men.

## Study One

### Introduction

Study 1 tested the hypotheses that when focus is on a woman's appearance, she is perceived as having less of a soul, and that this should not be the case for male targets. It also tested whether the effect of appearance focus on perceptions of women's souls is mediated by perceptions of women as objects (lacking human nature; Haslam, 2006), which was assessed using the within-person correlation between the perceived typicality of each trait to the target and the perceived essentialness of each trait to being human (as in Heflick & Goldenberg, 2009). This method was used to help control for potential between participant differences in what people perceive as essential to human nature, which differs to an extent across groups (e.g., Bain, Park, Kwok & Haslam, 2009). Further, these effects are not unique to male or female perceivers (Heflick & Goldenberg, 2009; Heflick et al., 2011; Loughnan et al., 2010); in turn, participant gender was not considered a variable of interest.

To test these hypotheses, participants were assigned to focus on the appearance of Michelle or Barack Obama. These targets have been used in past research on objectification (Heflick et al., 2011) and (crucial to the design) are well known enough to be rated on several traits. Although differences undoubtedly exist between the Obamas, past research found that they were perceived as equally attractive to participants (Heflick et al., 2011), both of which are associated positively with person perception (Moreland & Zajonc, 1982). Using a male target will allow for testing the hypothesis that focusing on

the appearance of anyone (not just women) will induce the perception that they lack a soul, because a soul is incongruous with the physical body. I expect this, based on past research on the effects of appearance focus on perceptions of males (Heflick et al., 2011), to not be the case, supporting the notion that it is objectification that reduces perception of women's souls when focus is on their appearance.

## **Method**

**Participants.** Ninety-eight people participated for course credit. One participant was excluded for using the same number to answer every item, making within-person correlational scores impossible to compute. This left 97 participants ( $M$  age = 19.6,  $SD$  = 2.2), of which 76 people self-reported as female, 20 people self-reported as male, and 1 person self-reported as other.

### **Procedure and Materials.**

**Cover Story.** Participants were told that they were part of a study on forming impressions of famous people. They were randomly assigned to one of four groups, crossed by Target (Barack Obama, Michelle Obama) and Focus (Appearance, Personality).

**Target.** Following past research (Heflick et al., 2011) participants were shown an image of either Barack or Michelle Obama from the waist up, in which they were in business attire and smiling.

**Appearance Focus.** Participants were randomly assigned to focus on the target's (Barack or Michelle Obama) appearance or personality, as in past research (Heflick & Goldenberg, 2009; Heflick et al., 2011). In the appearance focus condition, they were asked to write about the target's physical appearance and to list both positive

and negative aspects, and in the personality condition, to write about his or her personality in both positive and negative ways. There was no limit placed on how much they could write.

*Human Nature Ratings.* Participants then rated several traits as to how typical they were of the target about whom they had written. Participants then rated those same traits on how characteristic they were of human nature on a 1 (not at all) to 5 (entirely) Likert Scale, as in Heflick and Goldenberg (2009). The within person correlation between these two scores was the objectification measure (as in Heflick & Goldenberg, 2009; see also Martens et al., 2006 and Vaes, Heflick & Goldenberg, 2010 for examples of within person correlation dependent variables). A high positive correlation indicates high concordance between the perceived typicality and perceived humanity of each trait, and thus, represented a greater assignment of humanity to the target person. In contrast, a high negative correlation indicated less humanity proscribed to the person. So, for instance, if a person rates a target as a “5” in the traits “spiritual” and “kind” and rates these traits as a “5” in terms of their essentialness to being human, this would denote a high level of human nature being proscribed to that target. In contrast, if a person rates a target as a “1” in terms of the trait’s typicality in describing that person, but believes that those traits are a “5” in terms of their essentialness to human nature, this would indicate that the person is perceived as low in human nature. Because it is possible that any given trait may be construed by the individuals as not relevant to human nature (or soul perceptions), 18 traits were used, and were selected from past measures of soul perceptions (e.g., Bering, 2002) and human nature

(Haslam, 2006), and included such traits as “evil,” “spiritual,” “kind,” “trustworthy” and “capable.”

*Soul Ratings.* After this, participants rated how essential each trait was of a soul (i.e., what lives on in a next life after we die). The within person correlation between typicality and soul perceptions served as the soul measure, again with “-1” being the score associated with the least soul, and “1” being perceived as the most soul.

*General Denigration.* Participants were asked how attractive they found the person they wrote about and how well they thought he or she dresses on a 1 (not at all) to 5 (very) Likert scale. These items were summed and averaged to form a composite measure ( $\alpha = .72$ ). These questions were included to help assess the alternative explanation to objectification that the (anticipated) results were on account of general degradation of the woman in the appearance focus condition. If that is true, then Michelle Obama should be rated as less attractive and as a worse dresser in the appearance focus condition.

*Coding.* Given the open-ended nature of the responses to the appearance focus manipulation, a coder blind to the conditions and the hypotheses coded the responses for positivity, length, and appearance focus. Length was coded as total lines written, and the other questions were recorded using a 1 (not at all) to 4 (entirely) Likert Scale. First, it is possible that positivity and/or the amount written could differ between conditions. Coding for this enabled me to control for this in all analyses. Second, assessing physical appearance focus and person focus within the essays served as a manipulation check.

## **Results**

**Manipulation Check.** A 2 (Target: Barack, Michelle) X 2 (Focus: Appearance, Person) ANOVA with appearance focus as the dependent variable yielded a significant main effect for Target,  $F(1, 93) = 4.2, p = .04, \eta^2 = .04$ , and for Focus,  $F(1, 93) = 619.1, p < .01, \eta^2 = .87$ . Participants focused more on Michelle's appearance ( $M = 3.1, SD = .75$ ) than Barack's appearance ( $M = 2.8, SD = .77$ ), and wrote more about appearance in the appearance focus condition ( $M = 4.7, SD = .88$ ) than the person focus condition ( $M = 1.2, SD = .44$ ). The interaction effect was not significant ( $p = .60$ ). This indicates that the manipulation was successful in inducing a focus on the target's appearance, though there were overall differences between targets.

A 2 (Target: Barack, Michelle) X 2 (Focus: Appearance, Person) ANOVA with person focus as the dependent variable yielded a significant main effect for Target,  $F(1, 93) = 4.4, p = .04, \eta^2 = .05$  and for Focus,  $F(1, 93) = 651.7, p < .01, \eta^2 = .88$ . Participants focused more on Barack as a person ( $M = 4.9, SD = .74$ ) than Michelle ( $M = 4.4, SD = .86$ ), and wrote more about personality in the person focus conditions ( $M = 4.7, SD = .64$ ) than the appearance condition ( $M = 1.2, SD = .45$ ). The interaction was not significant ( $p = .32$ ). This indicates that being directed to focus on the target's personality heightened focus on their personality, though again, there were differences between targets.

**Human Nature Ratings.** My first hypothesis was that appearance focus would reduce human nature ratings when the target was Michelle Obama, but not when it was Barack Obama. To test this, I conducted a 2 (Target: Barack, Michelle) X 2 (Focus: Appearance, Person) ANOVA with human nature ratings as the dependent variable, and with response positivity and response length as covariates. Positivity was a marginally



significant positive covariate ( $p = .06$ ,  $\eta^2 = .03$ ), but length was not ( $p = .76$ ). The results yielded no effect for Target ( $p = .15$ ) or Focus ( $p = .74$ ), and the interaction effect was also not significant ( $p = .34$ ). The hypothesis was not supported.

**Soul Ratings.** To test the hypothesis that a female target, but not a male target, would be perceived as having less soul when focus was on the target's appearance, I next conducted a 2 (Target: Barack, Michelle) X 2 (Focus: Appearance, Person) ANOVA with soul ratings as the dependent variable, and with response positivity and length as covariates. Positivity was a significant positive covariate ( $p = .02$ ,  $\eta^2 = .06$ ) and length was a marginally significant negative covariate ( $p = .06$ ,  $\eta^2 = .04$ ). There was a marginal main effect for Target,  $F(1, 91) = 3.0$ ,  $p = .09$ , with Michelle ( $M = .58$ ,  $SD = .26$ ) being perceived as higher in soul ratings than Barack ( $M = .48$ ,  $SD = .35$ ). Focus also marginally significant,  $F(1, 91) = 3.2$ ,  $p = .08$ ,  $\eta^2 = .034$ , such that appearance focus lowered perceived soul ratings ( $M = .48$ ,  $SD = .37$ ) relative to person focus ( $M = .58$ ,  $SD = .24$ ). The interaction effect between Focus and Target was not significant ( $p = .35$ ). Although the findings did not reach statistical significance, they suggest that, as hypothesized, Michelle Obama was perceived as having less soul when focus was on her appearance. However, counter to the hypothesis, this also occurred when the target was Barack Obama.

**Mediation.** No analyses were conducted to test if human nature ratings mediated the effect of appearance focus on soul ratings because appearance focus did not affect perceptions of human nature, which is a necessary condition for mediation (Baron & Kenny, 1986).

**Esteem Threat.** To test if appearance focus prompted a general degradation of the targets, I conducted a 2 (Target: Barack, Michelle) X 2 (Focus: Appearance, Person) ANOVA on perceptions of the targets' dressing style and attractiveness, again with focus positivity and length as covariates. Positivity was a significant positive covariate ( $p < .01$ ), as was length ( $p < .01$ ). There was no main effect of Target ( $p = .83$ ) or Focus ( $p = .34$ ). The interaction effect also was not significant ( $p = .15$ ). In turn, it does not appear that appearance focus was causing a general degradation of the targets.

## **Discussion**

In Study 1, the goal was to test if appearance focus reduced perceptions of a woman (but not a man) having a soul, and if perceptions of her as an object (lacking human nature) mediated this effect. It was found that focusing on a target's appearance, regardless of target gender, reduced perceptions that the target person has a soul. Further, focusing on either target's appearance had no effect on their perceived human nature, suggesting that the reduced soul perceptions were not due to heightened perceptions of the target person as an object. In addition, the impact of appearance focus had no effect on how attractive or well-dressed the targets were believed to be, suggesting as in past research (Heflick et al., 2011), that these effects were not due to general denigration of the targets. The findings therefore appears to support a cognitive focus explanation; both a male and a female target were subject to reduced perceived "soulness" when focus was on their appearance, or in other words, that which is physical and believed to be incompatible with a soul.

Study 2 provided an opportunity to see if these findings would replicate using alternative operationalizations of the soul and of appearance focus. The manipulation of

appearance focus in Study 1 was used in past research (Heflick & Goldenberg, 2009; Heflick et al., 2011), but the open-ended nature of the manipulation responses creates some variability. For instance, in Study 1, although participants focused more on the female targets appearance in the appearance focus condition, relative to the person focused condition, they also focused on the woman's appearance more overall than the man's appearance. And further, in past research, participants have written more favorably of targets in the appearance condition (Heflick & Goldenberg, 2009). The dependent variable of Study 1 (the within person correlation) also is not without limitations. It is possible that rating the same traits twice creates a demand characteristic in which participants correctly gauge that the two ratings will be compared with each other (e.g., rating a person on how "warm" they are and then rating "warm" on how human it is).

## **Study 2**

### **Introduction**

In Study 2, to help account for the limitations in Study 1, I used a different experimental design. First, I used a manipulation of appearance focus that does not rely on participant's written open-ended responses. Specifically, I drew on past research (Gray et al., in press) and had people rate women or men on their appearance (how attractive the target is) or their competence using Likert-scored items. For the dependent variable, I implemented a design used by Bering (2002) that asks people to rate how much a person will maintain certain traits once they are dead. This allowed for an assessment of soul perceptions that did not pose the possibility that participants will link the perceptions of "soulness" to the perceived traits of the target.

In Study 2 participants also relied on first impressions to rate the female and male targets, as opposed to having prior knowledge of the target (as in Study 1, and Heflick & Goldenberg, 2009 and Heflick et al., 2011, Study 1). This is important because many real-life situations rely on first impressions and these impressions can be remarkably powerful (e.g., initial impressions from a face presented for seconds can predict voting choice; Todorov, Mandisodza, Goren & Hall, 2005). In addition, in Study 2, the target people were younger than in Study 1 and were Caucasian rather than African American.

### **Method**

**Participants.** Participants were 72 undergraduates who participated for course credit ( $M_{age} = 21.0$ ,  $SD = 4.7$ ). Eleven people identified as male, and 61 identified as female.

**Procedure and Materials.**

**Cover Story.** Participants were told they were part of a study on forming first impressions of two friends.

**Target.** Participants were randomly assigned to view images of two men (ostensibly named Aaron Smith and Casey Mckenzie) or two women (ostensibly named Erin Smith and Casey Mckenzie) that were fully dressed (as in Gray et al., in press). These images were taken from hotornot.com, and past research has found that the people in these images were unfamiliar to participants and moderately attractive (Mesa, unpublished).

**Appearance Focus.** Drawing on Gray and colleagues (in press), participants rated their first impressions of these two friends. In the appearance condition, people rated the images on their physical appearance (good-looking, fit, attractive) and, in the control condition, on their intelligence (competent, capable, smart). These items were scored on a 1 (not at all) to 4 (very much) Likert scale, though the scores were not critical to the analysis.

**Soul Perceptions.** Participants were then told that the people they rated on the previous page had died in the past year in a car accident together on the way home from work. They were then given a series of twelve traits adapted from Bering (2002) that he has found people perceive to persist after death. Six of these were emotions (e.g., joy, happiness, emotional pain) and six were mental states (e.g., memories, thoughts,

beliefs). Participants were asked to assess how likely the (dead) people they rated are to still be able to experience these traits. These traits were scored on a 1 (extremely unlikely) to 5 (extremely likely) scale. The average response of the emotional traits and the average response of the mental traits were the dependent measures of perceived soul, with greater scores indicating greater perceived soul. The mental traits scale was found to be reliable for both targets ( $\alpha > .86$ ) as was the emotional traits scale ( $\alpha > .84$ ).

## Results

**Soul Ratings.** I conducted a 2 (Target Gender: Male, Female) X 2 (Focus: Appearance, Competence) ANOVA with emotional states for Casey as a dependent measure. The results yielded a marginal main effect of target gender,  $F(1, 68) = 3.2, p = .08$ , such that Casey was perceived as having fewer emotions when depicted as male ( $M = 2.9, SD = 1.0$ ) rather than female ( $M = 3.2, SD = .83$ ). There was also a significant main effect for Focus,  $F(1, 68) = 8.9, p < .01, \eta^2 = .12$ , with appearance focus lowering perceived emotions ( $M = 2.7, SD = .82$ ), relative to competence focus ( $M = 3.4, SD = .90$ ). The interaction effect was not significant ( $p = .94$ ).

To test if the results generalized to an additional target, I also conducted a 2 (Target Gender: Male, Female) X 2 (Focus: Appearance, Competence) ANOVA on Aaron's (or Erin's) emotional states. The analysis yielded a marginal main effect for Target Gender,  $F(1, 68) = 3.3, p = .07$ . Aaron (male) was perceived as having less emotions ( $M = 2.9, SD = 1.0$ ), than Erin (female) ( $M = 3.3, SD = .86$ ). There was a significant main effect of Focus,  $F(1, 68) = 8.7, p < .01, \eta^2 = .12$ , with perceived emotional states lower in the appearance focus condition ( $M = 2.8, SD = .93$ ) than the competence condition ( $M = 3.4, SD = .87$ ).

I then conducted the same ANOVA, this time with the mental states of Casey as the dependent variable. There was a significant main effect for Focus,  $F(1, 68) = 4.6, p = .04, \eta^2 = .06$ ; appearance focus lowered mental states ( $M = 3.0, SD = .96$ ) relative to competence focus ( $M = 3.5, SD = 1.2$ ). There was no main effect for Target Gender ( $p = .44$ ) or interaction effect ( $p = .68$ ).

I conducted the same ANOVA, this time with the mental states of Aaron (or Erin) as the dependent variable to again test if the effects generalized to both targets. There was a significant main effect for Focus,  $F(1, 68) = 4.0, p = .05, \eta^2 = .06$ . Appearance focus lowered mental states ( $M = 2.9, SD = .94$ ) relative to competence focus ( $M = 3.5, SD = 1.2$ ). There was no main effect for Target Gender ( $p = .56$ ) or interaction effect ( $p = .76$ ).

## **Discussion**

In Study 2, two male and two females were rated as having fewer mental states and less emotions post-mortem when focus was on their physical appearance, indicating that this focus reduced perceptions that they have a soul. These results replicate the effects found in Study 1, and extend it by using a different manipulation of appearance focus and a different measurement of souls. And further, unlike Study 1, the targets were unfamiliar to participants, suggesting that appearance focus can lower perceptions of a person's soul when forming first impressions.

The results of Study 2 and Study 1 are consistent with a cognitive focus approach. Both the male and female targets were perceived as having less soul when focus was on their appearance, or their physicality, which is inconsistent with having a soul. This is further supported by the lack of evidence for alternative explanations. Because

perceptions of both stereotypical feminine traits (emotions) and stereotypical masculine traits (mental states) were both weakened by appearance focus for targets of both gender, Study 2 provided evidence that the results are not due to appearance focus heightening stereotyping. Study 1 provided evidence that the effects were not due to appearance focus lowering human nature ratings or inducing general degradation of the target people.



## Study 3

### Introduction

For Study 3, I sought to use a much different paradigm to test the effects of appearance focus on perceptions of a woman's soul. Specifically, from a meaning maintenance model perspective (MMM; Heine, Proulx & Vohs, 2006), people respond to what they perceive as incoherent, absurd and illogical (i.e., meaningless) with a heightened need to restore meaning in a different domain. For instance, absurd art and stories without endings have been found to heighten people's need for structure (Proulx, Heine & Vohs, 2011), and their need to have clear morals and values, as assessed by heightened prescribed bail for a moral violator, (Proulx & Heine, 2009). Heflick and Goldenberg (unpublished) found that when people read that their cherished values are just opinions, they show a heightened ability to detect number patterns and a heightened perceived causality between statements (e.g., does sadness cause crying?). It follows then, that if under appearance focus a female target is perceived as having less soul, presenting the woman as having a soul should elicit a meaning threat. This, in turn, should trigger a heightened need for structure and coherence (i.e., meaning) and heightened worldview defense of their morals.

### Method

**Participants.** Seventy nine-people (19 male, 59 female, 1 unreported;  $M_{age} = 21.5$ ,  $SD = 5.3$ ) participated for course credit. Data from three participants was excluded for giving unclear responses on the worldview defense dependent measure (e.g., one

participant wrote “\$1-\$999” when asked to give a specific amount of desired bail). As decided a-priori, because the idea of leaving one’s body after death should theoretically always be a meaning threat to people who do not believe in a soul, data from participants who scored 1 on a scale of 1-7 (1 indicating strong disagreement with people possessing a soul) was excluded in the final data analyses. This left data from 69 participants for data analysis.<sup>2</sup> Because Studies 1 or 2 employed a paradigm that allowed for implicit belief in a soul, participants were not excluded based on their prior belief in those studies.

### **Procedure and Materials.**

*Cover Story.* Participants were told they were part of a study on how people form impressions of others and how their own personality relates to this (see Appendix C for all materials related to Study 3).

*Appearance Focus.* Participants were asked to rate images of two women, Casey Mckenzie and Erin Smith, on either their attractiveness or their intelligence, as in Study 2 (Gray et al., in press).<sup>3</sup> No images of males were used.

*Meaning Threat.* Participants read two brief bios of the women in the images that they had rated previously, ostensibly in order to form a further impression of them. These bios gave basic information about each woman, such as occupation (teacher, waitress), age (27, 29) and what each woman loves (scuba diving, the beach) and hates (cold weather, seafood). The potential meaning threat was introduced under the guise of an “interesting fact” about one of the women. In both conditions, each woman had an interesting fact listed, either that she had been to Ireland or once had a near death experience. In the one condition (woman with a soul), either Erin or Casey were described as having a near death experience, and being convinced that she left her body

and that there is life after death (after she was declared dead). In the other condition (woman with no soul), Erin or Casey was again described as having a near death experience, but this time, coming back not believing in life after death, and reporting that she did not leave her body. Whether Erin or Casey was described as having a near death experience was counterbalanced across conditions.

*Delay.* To provide the necessary delay to get meaning threat effects (see Solomon, Greenberg & Pyszczynski, 2005 for review), participants completed a mood scale (e.g., Greenberg et al., 1990). The mood scale (PANAS-X; Watson & Clark, 1994) also enabled me to test if the manipulations impacted mood, which has been found to be related to person perception (e.g., Forgas & Bower, 1986). This scale involves rating how much a person currently feels a wide range of positive emotional states (e.g., excited, joyful) and negative emotional states (e.g., sad, disgusted with self; 1 – not at all, 4 – strongly), and positive and negative affect form two distinct subscales.

*Dependent Variables.* After this, the need to restore meaning was assessed using the Personal Need for Structure Scale (Neuberg & Newsome, 1993) and the desire to punish a moral violator (the bond they set for a thief; adapted from Greenberg et al., 1991), both of which have been found to be heightened by meaning threats in past research (Proulx et al. 2011; Proulx & Heine, 2008). The Personal Need for Structure Scale has been well validated and found to be reliable (Neuberg & Newsome, 1993), and assesses the extent to which people prefer clarity, order and structure using 12 items that are Likert scored on a scale of 1 (strongly disagree) to 5 (strongly agree). Sample items include “I enjoy having a clear and structured life” and “I hate to be with people who are unpredictable.” The former item reflects the “Desire for

Structure” subscale and the latter is part of the “Response to Lack of Structure” subscale. I made no predictions based on subscales, but still wished to test these two separate factors independently as dependent measures because they do represent distinct concepts.

The bail measure asked people to read a short description of a woman who has been arrested for theft and a description of what a judge typically uses to assess bail, such as prior arrests (adapted from Rosenblatt, Greenberg, Solomon, Pyszczynski & Lyon, 1989). Participants were then asked to assess how much bail should be set before this woman can be released from prison. This represents a chance for a person to display rigidity in their moral worldviews, which is a way to restore meaning. The potential requested bail ranged from \$0 to \$999.

## **Results**

**Need for Structure.** I first conducted a 2 (Focus: Appearance, Competence X 2 (Soul Evidence: Yes, No) ANOVA on the Desire for Structure subscale. The results revealed no main effect for Focus ( $p > .24$ ) or for Soul Evidence ( $p > .62$ ). There was, however, the hypothesized interaction between Focus and Soul Evidence,  $F(1, 65) = 6.2$ ,  $p = .02$ ,  $\eta^2 = .09$ . Post hoc testing revealed that there was a significant difference within the appearance focus condition, such that there was a lower need for structure when there was evidence she did not have a soul relative to when there was soul evidence,  $F(1, 33) = 4.2$ ,  $p = .05$ . This did not occur within the competence condition ( $p = .15$ ). Further, when there was evidence that the woman had a soul, there was no effect of Focus ( $p > .33$ ). However, when there was evidence that the woman did not have a soul, appearance focus was associated with less Desire for Structure than competence focus,  $F$

(1, 32) = 6.4,  $p = .02$  (see Figure 1). This suggests that people perceived a woman lacking a soul as more coherent and meaningful when focus was on her appearance.

I then conducted the same analysis with Response to a Lack of Structure as the dependent variable. There was a marginal trend for appearance focus to lower these scores ( $M = 3.5$ ,  $SD = .49$ ), relative to competence focus ( $M = 3.8$ ,  $SD = .46$ ),  $F(1, 65) = 2.7$ ,  $p = .10$ , but there was no effect of Soul Evidence ( $p > .9$ ). Unlike the Desire for Structure, there also was no interaction effect ( $p = .45$ ).

**Bail Bond.** I conducted the same 2X2 ANOVA, this time with assessment of bail as the dependent measure. There was no main effect for Focus ( $p > .77$ ), but there was a main effect for Soul Evidence,  $F(1, 65) = 5.8$ ,  $p = .03$ ,  $\eta^2 = .07$ , with evidence of a soul increasing requested bail ( $M = 741.24$ ,  $SD = 207.3$ ) relative to no soul evidence ( $M = 630.5$ ,  $SD = 198.3$ ). However, this main effect was qualified by a marginally significant two way interaction,  $F(1, 65) = 3.8$ ,  $p = .056$ ,  $\eta^2 = .06$ . Post hoc testing revealed that when focus was on the woman's appearance, more requested bail was assessed when there was evidence that she had a soul, relative to when there was evidence she did not,  $F(1, 33) = 8.3$ ,  $p < .01$  (see Figure 2). There were no differences between the soul evidence and no soul evidence conditions when focus was on the women's competence ( $p = .83$ ). There also were no differences within the soul evidence or no soul evidence conditions, when comparing appearance focus to competence focus ( $ps > .14$ ).

**Mood.** The results of a 2 (Focus: Appearance, Person) X 2 (Soul Evidence: Yes, NO) ANOVA was also conducted on negative affect, and then on positive affect. For negative affect, there was a significant main effect for Focus,  $F(1, 73) = 6.0$ ,  $p = .02$ ,  $\eta^2 = .08$ . Appearance focus was associated with less negative affect ( $M = 38.5$ ,  $SD = 8.5$ )

than competence focus ( $M = 44.3$ ,  $SD = 12.9$ ). There was no main effect of Soul Evidence ( $p = .45$ ) and the interaction effect was not significant ( $p = .25$ ). For positive affect, no main or interaction effects approached significance ( $ps > .36$ ).

## **Discussion**

From an MMM perspective (Heine, Proulx & Vohs, 2006), incompatible beliefs are a meaning threat, which increases the need for structure and heightened defense of one's moral worldviews (e.g., Proulx & Heine, 2010). In turn, because bail assessment and need for structure were higher when focus was on a woman's appearance and there was evidence she had a soul, compared to when focus was on her appearance and she was portrayed as not having a soul, this suggests that the idea of a woman having a soul was less coherent when focus was just placed onto her appearance. Interestingly, however, this effect occurred for the Desire for Structure subscale, but not the Response to a Lack of Structure subscale. This makes sense, as wanting structure should be more associated to restoring meaning than disliking when life is not structured; in fact, in Study 3, there were no real differences in the structure or clarity of the presented information.

## **General Discussion**

### **Overview of Results**

The belief in an immortal soul has persisted from the earliest forms of humanity to modern times. In the United States for instance, 95% of people believe that humans have an eternal soul (Lester et al., 1995). Evolutionary theorists have argued that Supernatural beliefs are part of a system designed to over-detect potential sources of agency and harm, even where they may not exist. Research shows that belief in one's own eternal soul also protects people from a deep-rooted human fear of mortality (Dechesne et al., 2003). But what could cause people to perceive someone as having less of a soul?

I hypothesized that because humans are typically perceived to have souls, that a focus on a woman's physical appearance, which has been found to reduce perceptions of her humanness (Heflick & Goldenberg, 2009), should reduce perceptions that she has a soul. This should not be the case for men, however, because focusing on a man's appearance has not been found to reduce perceptions of attributes associated with human nature (e.g., warmth, competence; Heflick et al., 2011).

The results of three studies confirmed the hypothesis that women are perceived as having less of a soul when focus was on their appearance. This was found using an open-ended writing prompt focusing on appearance or personality (Study 1), when merely rating women on their attractiveness and how fit they appeared (or on their intelligence and capability) on a Likert scale (Study 2), and using two different measures of soul

perceptions. Evidence for this effect was also found using a less direct measure in Study 3: providing people with evidence that a woman does or does not have a soul after focusing on her appearance or her competence and then assessing need for structure and worldview defense. Because people had a higher need for structure and heightened worldview defense when focused on her appearance and provided with evidence that she had a soul, compared to evidence that she did not, this suggests that focusing on a woman's appearance causes people to perceive the woman having a soul as less coherent than her not having one. This is because statements that one perceives as meaningless and incoherent elicit heightened psychological defenses aimed at restoring meaningful cognitive associations (Heine, Proulx & Vohs, 2006).

However, contrary to my hypotheses, men were also perceived as having less of a soul when focus was on their appearance (Study 1 and 2, not assessed in Study 3). This is inconsistent with past research finding that perceptions of male targets are not affected by a focus on their physical appearance (Cikara, Eberhardt & Fiske, 2012; Heflick et al., 2011; Vaes et al., 2011).

### **Mechanism of Effect**

But what can explain why women and men were both perceived as having less of a soul when focus was on their physical appearance in the current studies. And further, why did this effect occur at all?

I hypothesized that appearance focus would reduce perceptions that a woman has a soul as a function of reducing her perceived human nature traits. This was not found for male or female targets (Study 1), although past research has provided evidence that women are perceived as more like objects when focus is on their appearance (Bernard et



al., in press; Cikara, Eberhardt & Fiske, 2011; Heflick & Goldenberg, 2009). It is unclear why this did not occur in the extant studies. Regardless, although null effects should be interpreted with caution, it does not appear that reduced human nature perceptions was the mechanism by which people perceived men and women as having less soul when focus was on their appearance in the current studies.

It also does not appear that general degradation of the targets is underlying the effects of appearance focus on reduced soul perceptions. In Study 1, appearance focus did not lead participants to denigrate the appearance of either Barack or Michelle Obama (consistent with past research; Heflick et al., 2011). Further, negative affect, which has been found to contribute to general person degradation (Forgas & Bower, 1986), was actually lower in the appearance focus condition in Study 3, and positive affect was unaffected by that manipulation. And moreover, in past research on appearance focus, varying target attractiveness, which would potentially constitute a self-esteem threat that could lead to general target denigration, had no impact (Heflick et al., 2011).

It is also not likely that the appearance focus affects soul perceptions can be accounted for by the activation of stereotypes in the current studies. If stereotype activation was the reason for the current findings, I would expect that, in Study 2, men would be perceived as having more perceived mental states when focus was on their appearance, and that women would be perceived to have more perceived emotional states, in line with gender stereotypes (Eagly & Mladinic, 1989). This was not the case, as appearance focus reduced the perceived emotional and mental traits for targets of both genders. This finding is consistent with past research showing that men are not perceived as more competent when focus is on their appearance (Heflick & Goldenberg, 2011;

Loughnan et al., 2011), and that women are perceived as less warm when focus is on their appearance (Heflick & Goldenberg, 2011).

Another possible explanation for why appearance focus lowered perceptions of souls is that focusing on a woman's or man's appearance causes people to focus less on traits that are believed to be part of a soul – mental and emotional traits – and to focus more on that which is not part of a soul – physical traits. This cognitive focus explanation seems consistent with the current findings. However, the current findings are not consistent with the theorizing of Gray and colleagues (in press) regarding cognitive focus. They suggested that cognitive focus differences are the mechanism for all findings on the objectification of people based on appearance related variables. That is, they argue that people will perceive a target person as lower in mental traits when focusing on their physicality, because they are not focusing on their mind, and perceive a person as higher in sensory related variables when focusing on their appearance, because they are focused on a person's physical senses. In Study 2, however, women and men were perceived as having less emotional states when focus was on their appearance, which is consistent with past research (Heflick et al., 2011).<sup>4</sup> And further, people perceive souls as having emotions and mental states (Bering, 2006), yet Study 3 indicated that evidence that a woman has a soul is less meaningful when focus is on her appearance, compared to evidence that she does not have a soul, again suggesting that she was perceived as lower in emotional states.

The findings of the extant studies are consistent with a cognitive focus perspective (even if not consistent with Gray's interpretation), in that people were perceived as having less of a soul when focus was on that which is incompatible with having a soul.

However, this explanation cannot explain why there were no effects for male targets in most past research (Cikara, Eberhardt & Fiske, 2012; Heflick & Goldenberg, 2009; Heflick et al., 2011; Vaes et al., 2011; but see, Gray et al., in press). If all these effects boil down to what aspect of the target person people were focusing on, then perceptions of males should have been influenced in these past studies as a result of focusing on their physical appearance.

In sum, a wide range of explanations have been put forth to explain past research on appearance focus and person perception, but none of these explanations appear to explain why the current findings differ from past research in terms of getting effects for male and female targets.

### **The Solution? Death Salience Explanations**

The words “soul” and “death” appeared in every condition of every study in this dissertation. It is possible then that the salience of death (not common in past research in this area) influenced the results. Specifically, research shows that focusing on one’s own physicality (e.g., getting a foot massage), when death is primed, lowers belief in an afterlife, but has the opposite effect on afterlife belief when people are focused on their own personality and thoughts (Heflick, Goldenberg, Hart & Kamp, under review). It could be then that death salience in the extant studies had an inadvertent effect of reducing overall soul belief when focus was on the physicality of the person (their appearance). That is, if people reduced their own belief in life after death in the appearance focus conditions, people perhaps projected this onto the targets – males or females - perceived soul. In contrast, when death was salient and the body was not the

source of focus, this could have heightened belief in an afterlife in general, and, again, this could have spilled over onto perceptions of the targets' souls.

Another possibility is that the effects were on account of death salience heightening defense of people's cultural belief systems (e.g., Greenberg et al., 1990). Physical appearance is highly important within Western cultures. Hundreds of studies show that mortality salience heightens defense of people's cultural worldview; for instance, they become more negative towards moral transgressors (Greenberg et al., 1990) and agree more with someone writing positively about their country of birth (Greenberg et al., 1990). It could be then, that when death was salient, this led people to perceive that appearance and attractiveness are more important, as a type of worldview defense. Heflick and colleagues (2011; Goldenberg et al., 2009) theorized that male targets, should their appearance be made more important (e.g., through a modeling job), would experience detrimental effects of appearance focus similar to women, whose appearance is typically perceived as more important (Fredrickson & Roberts, 1997). It could be that death salience made thoughts of appearance more important as a whole, raising the perceived level of importance for male's appearance to the level more typical of females. In turn, the effects in the current studies were found for both male and female targets.

### **Future Directions and Limitations**

Research shows that entities that are perceived to have a soul elicit greater moral concern than entities without souls (Gray et al., 2008). Consistent with this, debates about the morality of abortion often hinge on when the fetus is believed to develop a soul, as do debates on the ethicality of eating animals. It follows that when a person is perceived as

having less soul, they should be more likely to be harmed, or at least, people should show less empathy when others harm them. Supporting this, Loughnan and colleagues (2011) found that focusing on a sexualized person's image makes people more willing to harm them by assigning them less pain blocking pills in a hypothetical scenario. It is possible that perceptions of a soul mediate the effect of appearance focus on moral concern. It could be that all humans, or even non-human animals or elements of nature, are afforded more moral concern when they are not focused on solely for their physical attributes. This could have implications for how we make decisions to protect nature, decisions over what food we consume, and even how blue collar workers are perceived and treated relative to white-collar workers. Testing these ideas seems an important venue for understanding when and how people are afforded moral concern.

It is also possible that focusing on one's own appearance could reduce the perception that the self has a soul. This possibility is consistent with the current research and research showing that death salience and focus on one's own physicality reduces overall belief in life after death (Heflick et al., 2012). If this is the case, then it should, by extension, mean that focusing on one's own appearance would heighten fear of death, since afterlife belief protects people from mortality concerns (Dechesne et al., 2003). A future study could prime self-focus on appearance, relative to person focus, and then assess fear of death and afterlife belief to test these ideas.

There are several limitations to the extant studies. First, all the studies used college student samples, with a mean age of approximately 21 years old. Although future research is needed to test these ideas, conceptually, I would expect the same results with any sample that believes that a soul is distinct from the physical body. Second, in general,

more research is needed to test if these effects would extend to a wider range of targets (e.g., more races, different occupations and level of attractiveness). It would be interesting, for instance, to examine if these results would extend to older adult targets, such as the elderly. Theoretically, since pictures of the elderly have been found to prime thoughts of death (Martens et al., 2004), this could lead appearance focus to have a particularly strong effect in reducing the soul perceptions. Third, I have argued that appearance focus lowers perceptions of a target's soul. The comparison conditions in the extant studies (focusing on competence or the person) were chosen because they have practical value. These self- aspects are what people would focus on when forming impressions of others if they were not focused on appearance. However, it is unclear if appearance focus is reducing perceptions of a target person's soul, or if focusing on the person (Study 1) or their competence (Studies 2 and 3) increases these perceptions, or if both are occurring. For Studies 2 and 3, the possibility of the control condition (competence) heightening soul perceptions seems especially likely, as people are directly focusing on a specific aspect of the self that is directly associated with having a soul. Future research could include a more neutral condition to test the directionality of these effects. A study could, for example, compare the effect of focusing on a person's appearance to focusing on their personality, to focusing on something unrelated, like a building, on perceptions of souls.

Relatedly, it would be interesting to test the role of the target's relationship to the person in how their soul is perceived when focus is on their appearance. For instance, would a husband view his wife as having less of a soul when focus is on her appearance?

I would hypothesize the answer is “yes,” based on the current theorizing. However, these studies did not test this possibility.

Finally, the extant studies are limited in terms of gender of the participants. There simply were not enough men to draw any sort of meaningful conclusions. Past research examining the effects of appearance focus has found, however, that participant gender has no effect (e.g., Heflick & Goldenberg, 2011).

## **Conclusion**

These studies suggest that men and women are perceived as having less soul when focus is on their physical appearance. Being that our culture places such a high emphasis on physical appearance, this could be undermining a level of spirituality that most Americans report as being very important to them (Lester et al., 1995) and that protects people from fear of death (Dechesne et al., 2003). And further, perceptions of souls are relevant to how we treat others (Gray et al., 2008). Ironically then, focusing on one's own and other's appearance could be a double-edged sword, heightening fear of death and leading us to treat others, and perhaps even ourselves, more negatively.



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## Footnotes

- 1) Some religions (like some forms of Christianity) have held that the body is restored with the soul after death. This still requires a sense of dualism, because it conceptually separates the soul from the body, and further, the soul still would presumably need to be separated from a body at some point to be transferred to the new body (the human body is clearly dead). Even in Ancient Egypt, where people believed in a soul-body, this was still distinct from the original, human body.
- 2) The significant results of the studies remained the same with the data from participants who did not believe in a soul included as with their data excluded. Specifically, the results of a 2 (Focus: Appearance, Competence) X 2 (Soul: Yes, No) ANOVA on the motivation for structure subscale was significant,  $F(1, 72) = 4.0, p = .05$ . Further, although the same ANOVA on the bail assessment measure yielded no interaction effect ( $p = .14$ ), a planned comparison analysis between the soul and no soul conditions, when focus was on appearance, was significant ( $p = .02$ ), with people assessing more bail in the soul condition ( $M = \$740$ ) relative to the no soul condition ( $M = \$580$ ).
- 3) There was a typo in both appearance focus conditions. The measure stated “based on your first impressions of these women, please rate these men.” Because this wording occurred after viewing images of women, and only women, it is likely that participants understood what was expected of them (i.e., to rate women).

Critically though, the hypothesized effects were found within the appearance focus condition, suggesting that the effects found cannot be attributed to this type.

- 4) It is unclear why these differences in the effects of appearance focus on emotional traits between Study 2 and Gray's research occurred; however, it could be due to differences in the traits used. Many of Gray's traits (e.g., hunger) are physiological and sensory, but not necessarily emotions. In contrast, all the emotional states in Study 2 were clearly emotions (passion, emotional pain, joy). It could be that focusing on the physical elements of a person does cause them to be perceived in more physical terms, as Gray would suggest, but that this does not necessarily extend to emotional traits. If this is the case, then appearance focus should elicit reduced perceptions of emotional traits, heightened perceptions of physiological and biological states, and reduced perceptions of mental states. It could also be due to his studies using more sexualized targets, some of which were nude.

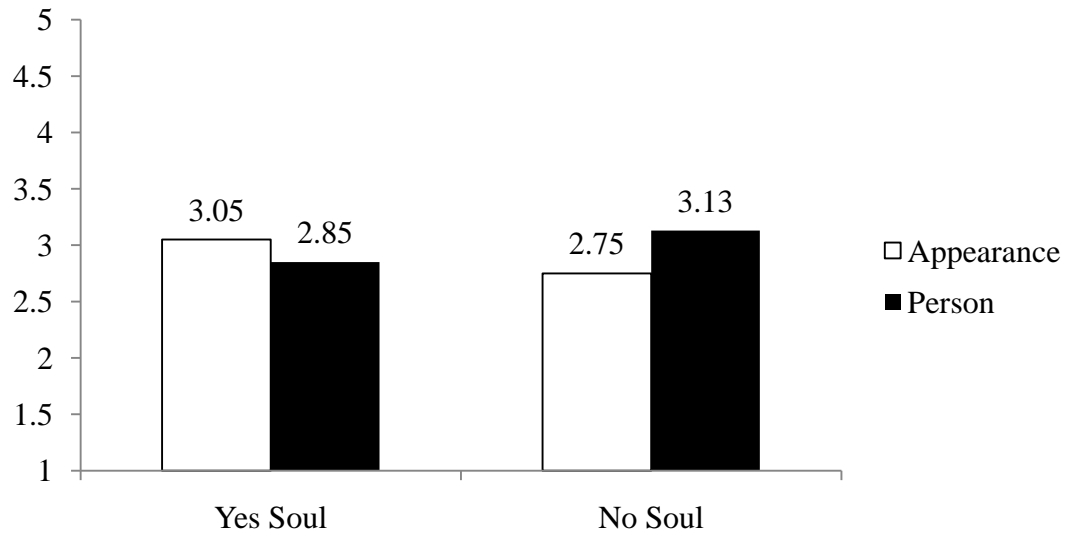


Figure 1. Motivation for structure as a function of soul evidence and appearance focus

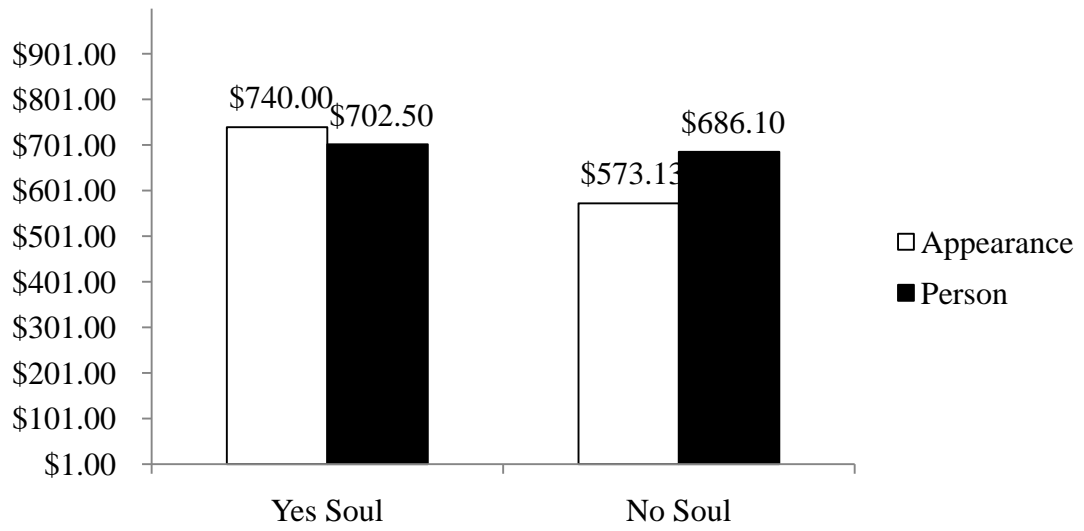


Figure 2. Assessed bail as a function of soul evidence and appearance focus

## Appendices

### Appendix A

Please, complete the following questionnaire. The aim of the study is to assess perceptions of people in the media.

The questions in this questionnaire do not have right or wrong answers. This questionnaire is completely anonymous and the information that is recorded will be only used for research purposes.

Please read the instructions that are written on the top of each page carefully.

Thank you for your help.

You have been randomly assigned a famous person to write about. The person you have been assigned is **Barack Obama**.

There are no right or wrong answers; we just want your honest opinion.





You have been randomly assigned a famous person to write about. The person you have been assigned is **Michelle Obama**.

There are no right or wrong answers; we just want your honest opinion.









Indicate the extent to which each of the following statements describes **Barack Obama (Michelle Obama)**. In other words, how much is each trait characteristic of **Barack Obama (Michelle Obama)** in general. To respond please place a check in the box that most closely matches your perception of him next to each trait. Note that numbers further to the right indicate stronger belief that he has that trait.

1- Not at all  
Typical

2

3

4

5 - Very  
Typical

Intelligent					
Moral					
Spiritual					
Reasonable					
Emotional					
Humble					
Capable					
Shy					
Stingy					
Impulsive					
Untrustworthy					
Kind					
Passionate					
Nervous					
Genuine					
Curious					
Knowledgeable					
Evil					

**Which of the following traits are essential to human nature (what most**

**characterizes being human)?** To respond fill in the number of the scale that corresponds with your opinion. Note that 1 indicates that the trait is not essential to being human and higher numbers increasingly indicate that the trait is a fundamental aspect of human nature.

1- Not at all                      2                      3                      4                      5- Entirely

Intelligent					
Moral					
Spiritual					
Reasonable					
Emotional					
Humble					
Capable					
Shy					
Stingy					
Impulsive					
Untrustworthy					
Kind					
Passionate					
Nervous					
Genuine					
Curious					
Knowledgeable					
Evil					

**Which of the following traits are essential to a soul (what most characterizes what lives on in a next life once we are physically dead)?** Numbers to the right increasingly represent that you think a trait is more essential to a soul.

1- Not at all                      2                      3                      4                      5 – Entirely

Intelligent					
Moral					
Spiritual					
Reasonable					
Emotional					
Humble					
Capable					
Shy					
Stingy					
Impulsive					
Untrustworthy					
Kind					
Passionate					
Nervous					
Genuine					
Curious					
Knowledgeable					
Evil					

*Please answer the following questions.*

1) How physically attractive do you find the person that you wrote about?

1	2	3	4	5	6	7
<b>Not at all</b>						<b>Very</b>
<b>Attractive</b>						<b>Attractive</b>

2) How well do you think the person that you wrote about dresses?

1	2	3	4	5	6	7
<b>Not at all</b>						<b>Very</b>
<b>Well</b>						<b>Well</b>

3) Do you believe that there is life after death (e.g., Heaven or reincarnation)?

1	2	3	4	5	6	7
<b>No</b>						<b>Yes</b>

4) Do you believe that each person has a soul that lives on when they die?

1	2	3	4	5	6	7
<b>No</b>						<b>Yes</b>

5) Do you believe in God?

1	2	3	4	5	6	7
<b>No</b>						<b>Yes</b>

Demographics

1) Are you a U.S. citizen? **YES NO**

2) Is English your first language? **YES NO**

3) Did you have any difficulties understanding the language in the packet?

**YES NO**

4) What is your gender? **MALE FEMALE**

5) What is the political party you most closely identify with?

**REPUBLICAN DEMOCRAT INDEPENDENT OTHER**

6) What is your political orientation (please circle)?

1	2	3	4	5	6	7
<b>Extremely Conservative</b>			<b>Moderate</b>			<b>Extremely Liberal</b>

7) My religious beliefs are very strong.

	-3	-2	-1	0	1	2	3
<b>Strongly Disagree</b>							<b>Strongly Agree</b>

8) Have you ever been in a study similar to this one? **YES NO**

If **Yes**, please explain:

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

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10) How familiar are you with the person that you rated?

2      2      3      4      5      6      7

**Not at all**

**Very Much**

11) How favorable is your impression of the person you rated?

1      2      3      4      5      6      7

**Not at all**

**Very Much**



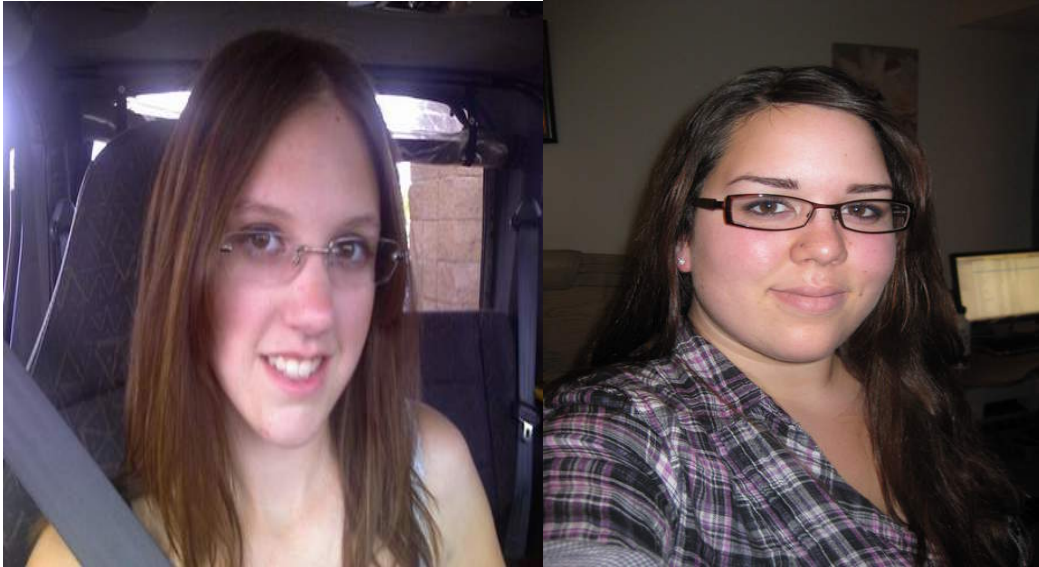
Please, complete the following questionnaire. The aim of the study is to assess your personality and how you view others.

This questionnaire is completely anonymous and the information that is recorded will be only used for research purposes.

Please read the instructions that are written on the top of each page carefully, and please complete the materials in the order in which they are presented.

Thank you for your help.

Below is a picture of two women. On your right is Erin Smith and on your left is Casey Mckenzie.



Based on your first impressions of these women, please rate these women on a scale of 1-4 on the traits below.

1- Not at all 2- A little 3- Somewhat 4- Very much

- 1) How smart is Erin Smith? \_\_\_\_\_
- 2) How capable is Erin Smith? \_\_\_\_\_
- 3) How competent is Erin Smith? \_\_\_\_\_
- 4) How smart is Casey Mckenzie? \_\_\_\_\_
- 5) How capable is Casey Mckenzie? \_\_\_\_\_
- 6) How competent is Casey Mckenzie? \_\_\_\_\_

Below is a picture of two men. On your right is Aaron Smith and on your left is Casey Mckenzie.



Based on your first impressions of these men, please rate these men on a scale of 1-4 on the traits below.

1- Not at all 2- A little 3- Somewhat 4- Very much

- 1) How smart is Aaron Smith? \_\_\_\_\_
- 2) How capable is Aaron Smith? \_\_\_\_\_
- 3) How competent is Aaron Smith? \_\_\_\_\_
- 4) How smart is Casey Mckenzie? \_\_\_\_\_
- 5) How capable is Casey Mckenzie? \_\_\_\_\_
- 6) How competent is Casey Mckenzie? \_\_\_\_\_

Below is a picture of two men. On your right is Aaron Smith and on your left is Casey Mckenzie.

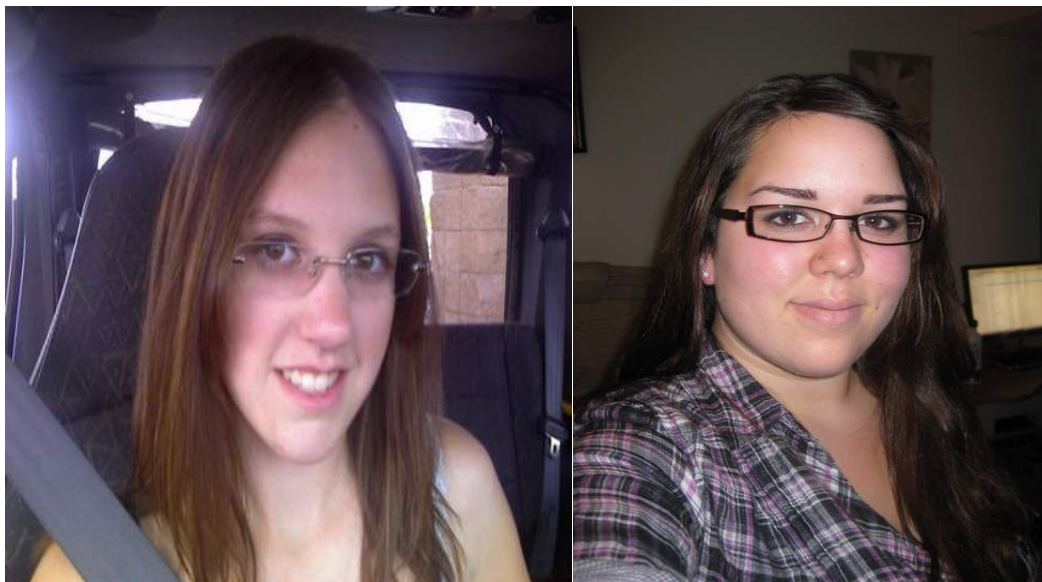


Based on your first impressions of these men, please rate these men on a scale of 1-4 on the traits below.

1- Not at all 2- A little 3- Somewhat 4- Very much

- 1) How attractive is Aaron Smith? \_\_\_\_\_
- 2) How good-looking is Aaron Smith? \_\_\_\_\_
- 3) How physically fit is Aaron Smith? \_\_\_\_\_
- 4) How attractive is Casey Mckenzie? \_\_\_\_\_
- 5) How good-looking is Casey Mckenzie? \_\_\_\_\_
- 6) How physically fit is Casey Mckenzie? \_\_\_\_\_

Below is a picture of two women. On your right is Erin Smith and on your left is Casey Mckenzie.



Based on your first impressions of these women, please rate these women on a scale of 1-4 on the traits below.

1- Not at all 2- A little 3- Somewhat 4- Very much

- 1) How attractive is Erin Smith? \_\_\_\_\_
- 2) How good-looking is Erin Smith? \_\_\_\_\_
- 3) How physically fit is Erin Smith? \_\_\_\_\_
- 4) How attractive is Casey Mckenzie? \_\_\_\_\_
- 5) How good-looking is Casey Mckenzie? \_\_\_\_\_
- 6) How physically fit is Casey Mckenzie? \_\_\_\_\_

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

Casey and Erin both died in a car accident last year while coming home from work. Many people believe that when people die, they maintain some emotional and mental abilities because their soul lives on. We are interested in how you perceive these (wo)men now that they are dead, that is, what is still (possibly) existing in a next life. Please use the 1-5 scale to rate how likely you think these women are to experience the following.

**Are these (wo)men still capable of experiencing .....**

- 1- Extremely unlikely
- 2- Somewhat unlikely
- 3- Neither likely or unlikely
- 4- Somewhat likely
- 5- Extremely likely

	<u>Casey</u>	<u>Erin (or Aaron)</u>
Anger		
Love		
Happiness		
Emotional Pain		
Knowledge		
Beliefs		
Memories		
Thoughts		
Joy		
Passion		
Intelligence		

Demographics

- 1) Are you a U.S. citizen? **YES NO**
- 2) Is English your first language? **YES NO**
- 3) Did you have any difficulties understanding the language in the packet?

**YES NO**

- 4) What is your gender? **MALE FEMALE**
- 5) What is the political party you most closely identify with?

**REPUBLICAN DEMOCRAT INDEPENDENT OTHER**

- 6) What is your political orientation (please circle)?

2      2      3      4      5      6      7  
**Extremely Conservative      Moderate      Extremely Liberal**

- 7) My religious beliefs are very strong.

-3    -2    -1    0    1    2    3  
**Strongly Disagree    Strongly Agree**

- 8) Have you ever been in a study similar to this one? **YES NO**

If **Yes**, please explain:

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

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10) Which of the following did you do during this study?

- a. Rate the intelligence of two men.
- b. Rate the physical appearance of two men.
- c. Rate the intelligence of two women.
- d. Rate the physical appearance of two women.

11) Do you believe that there is life after death (e.g., Heaven or reincarnation)?

2	2	3	4	5	6	7
<b>No</b>						<b>Yes</b>

12) Do you believe that each person has a soul that lives on when they die?

1	2	3	4	5	6	7
<b>No</b>						<b>Yes</b>

13) Do you believe in God?

1	2	3	4	5	6	7
<b>No</b>						<b>Yes</b>

## Appendix C

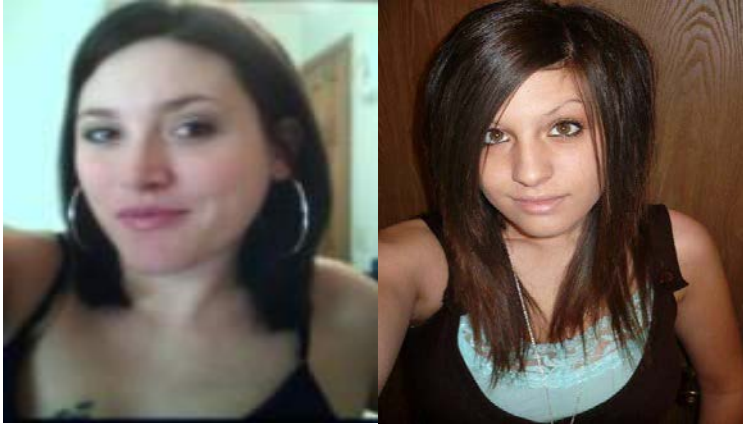
Please, complete the following questionnaire. The aim of the study is to assess your impressions of other people.

This questionnaire is completely anonymous and the information that is recorded will be only used for research purposes.

Please read the instructions that are written on the top of each page carefully, and please complete the materials in the order in which they are presented.

Thank you for your help.

*Below is a picture of two women. On your right is Erin Smith and on your left is Casey Mckenzie.*

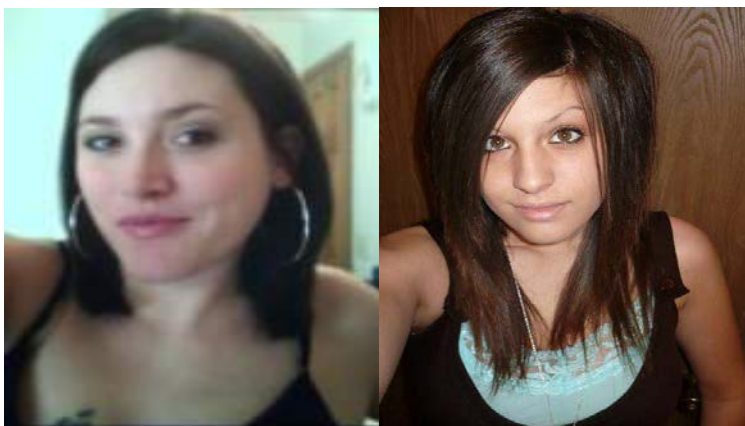


Based on your first impressions of these women, please rate these women on a scale of 1-4 on the traits below.

1- Not at all 2- A little 3- Somewhat 4- Very much

- 1) How smart is Erin Smith? \_\_\_\_\_
- 2) How capable is Erin Smith? \_\_\_\_\_
- 3) How competent is Erin Smith? \_\_\_\_\_
- 4) How smart is Casey Mckenzie? \_\_\_\_\_
- 5) How capable is Casey Mckenzie? \_\_\_\_\_
- 6) Hoe competent is Casey Mckenzie? \_\_\_\_\_

*Below is a picture of two women. On your right is Erin Smith and on your left is Casey Mckenzie.*



Based on your first impressions of these women, please rate these men on a scale of 1-4 on the traits below.

1- Not at all 2- A little 3- Somewhat 4- Very much

- 1) How attractive is Erin Smith? \_\_\_\_\_
- 2) How good-looking is Erin Smith? \_\_\_\_\_
- 3) How physically fit is Erin Smith? \_\_\_\_\_
- 4) How attractive is Casey Mckenzie? \_\_\_\_\_
- 5) How good-looking is Casey Mckenzie? \_\_\_\_\_
- 6) How physically fit is Casey Mckenzie? \_\_\_\_\_

*Below is a brief bio about the people you have been rating thus far. Please read the paragraph carefully, as you will be asked about it later on.*

### **Casey Mckenzie**

Age: 26

Family: Married with two children

Work: Waitress

Hates: Seafood

Loves: Scuba diving

Interesting Fact:

Once had a near death experience, in which she was declared medically dead. When she was revived, she reported that she had left her body and had experienced life after death.

### **Erin Smith**

Age: 29

Family: Married with one child

Work: Teacher

Hates: Cold Weather

Loves: Sunsets and the beach

Interesting Fact:

Erin has visited over 30 countries. Her favorite place to visit is Ireland.

*Below is a brief bio about the people you have been rating thus far. Please read the paragraph carefully, as you will be asked about it later on.*

### **Casey Mckenzie**

Age: 26

Family: Married with two children

Work: Waitress

Hates: Seafood

Loves: Scuba diving

Interesting Fact:

Once had a near death experience, in which she was declared medically dead. When she was brought back to life, she was convinced that she had not left her body and had not experienced life after death.

### **Erin Smith**

Age: 29

Family: Married with one child

Work: Teacher

Hates: Cold Weather

Loves: Sunsets and the beach

Interesting Fact:

Erin has visited over 30 countries. Her favorite place to visit is Ireland.

Please answer the following items based on what you just read. Please do not flip back to the previous pages.

1) Were these two women married? YES NO

2) What were these women's interesting facts?

Fact 1: \_\_\_\_\_

Fact 2: \_\_\_\_\_

3) Were either Casey or Erin a scuba diver? YES NO

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

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



*Read each statement in this instrument and select the response that best indicates the degree to which you personally agree or disagree with that statement.*

- 1- Strongly disagree
- 2- Disagree Somewhat
- 3- Neither
- 4- Agree Somewhat
- 5- Strongly Agree

- 1) It upsets me to go into a situation without knowing what I can expect \_\_\_\_\_
- 2) I'm bothered by things that interrupt my daily routine \_\_\_\_\_
- 3) I enjoy being spontaneous \_\_\_\_\_
- 4) I find that a well ordered life with regular hours makes my life tedious \_\_\_\_\_
- 5) I find that a consistent life enables me to enjoy life more \_\_\_\_\_
- 6) I enjoy having a clear and structured mode of life \_\_\_\_\_
- 7) I like to have a place for everything and everything in its place \_\_\_\_\_
- 8) I do not like situations that are uncertain \_\_\_\_\_
- 9) I hate for my plans to change at the last minute \_\_\_\_\_
- 10) I hate to be with people who are unpredictable. \_\_\_\_\_
- 11) I enjoy the exhilaration of being in unpredictable situations. \_\_\_\_\_
- 12) I become uncomfortable when the rules in a situation are not clear. \_\_\_\_\_

*Now we want to assess your judgments based on your evaluations of others. To do this, you will read a legal case, and will be given a summary of what the judge would use to make his or her decision. **You will then be asked to assess bail for the case**, that is, how much money the person being accused of the crime would have to pay before they could be released.*

Keep in mind that judges uses 3 things to determine the amount of bail:

- 1) If the person has local ties that would be likely to keep them in the area (children, jobs, etc).
- 2) If the person is a repeat offender, or has been convicted of other crime in the past
- 3) If the person has any failures to report to court in their past.

The amount of bail that a judge can set for the crime you will read about is:

- 1) \$0 - \$250 for a first offense, based on factors 1-3 above.
- 2) \$0 - \$999 for a repeat offense, based on factors 1-3 above.
- 3) If the situation requires it, based on the factors (1-3) above, the judge can set bail at \$0-\$999 regardless of the amount of defense.

**Below is the case summary:**

- 1) The defendant was arrested for breaking into a house and stealing \$5,000.
- 2) The defendant is currently unemployed.
- 3) The defendant has lived in Tampa for 3 years.
- 4) The defendant has never previously failed to appear in court.
- 5) The defendant has a prior arrest for robbery.

Given these factors above, what bail would you recommend for the defendant for her robbery charge (please choose amount between \$0 and \$999):

The bail amount I would choose is: \_\_\_\_\_

## Demographics

1) Are you a U.S. citizen? **YES NO**

2) Is English your first language? **YES NO**

3) Did you have any difficulties understanding the language in the packet?

**YES NO**

4) What is your gender? **MALE FEMALE**

5) What is the political party you most closely identify with?

**REPUBLICAN DEMOCRAT INDEPENDENT OTHER**

6) What is your political orientation (please circle)?

3	2	3	4	5	6	7
<b>Extremely Conservative</b>		<b>Moderate</b>		<b>Extremely Liberal</b>		

7) My religious beliefs are very strong.

-3	-2	-1	0	1	2	3
<b>Strongly Disagree</b>					<b>Strongly Agree</b>	

8) Have you ever been in a study similar to this one? **YES NO**

If **Yes**, please explain:

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

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- 10) Which of the following did you do during this study?
- a. Rate the intelligence of two men.
  - b. Rate the physical appearance of two men.
  - c. Rate the intelligence of two women.
  - d. Rate the physical appearance of two women.
- 11) Which of the following was your court case about?
- a. Prostitution
  - b. Traffic violation
  - c. Theft
  - d. Domestic violence
- 12) Which of the following was true of the people you saw images of?
- a. That one of them believed they had a soul after being declared dead.
  - b. That one of them was a rancher
  - c. That they were over the age of 30
  - d. That one of them believed they did not have a soul
- 13) Do you believe that there is life after death (e.g., Heaven or reincarnation)?
- |    |           |   |   |   |   |   |            |
|----|-----------|---|---|---|---|---|------------|
| 2- | 2         | 3 | 4 | 5 | 6 | 7 |            |
|    | <b>No</b> |   |   |   |   |   | <b>Yes</b> |
- 14) Do you believe that each person has a soul that lives on when they die?
- |  |           |   |   |   |   |   |            |
|--|-----------|---|---|---|---|---|------------|
|  | 1         | 2 | 3 | 4 | 5 | 6 | 7          |
|  | <b>No</b> |   |   |   |   |   | <b>Yes</b> |
- 15) Do you believe in God?
- |  |           |   |   |   |   |   |            |
|--|-----------|---|---|---|---|---|------------|
|  | 1         | 2 | 3 | 4 | 5 | 6 | 7          |
|  | <b>No</b> |   |   |   |   |   | <b>Yes</b> |





DIVISION OF 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) 974-5618

9/9/2011

Nathan Heflick  
Psychology  
PCD 4101

RE: **Exempt Certification** for IRB#: Pro00005619  
Title: Impressions and Perceptions

Dear Mr. Heflick:

On 9/8/2011 the Institutional Review Board (IRB) determined that your research meets USF requirements and Federal Exemption criteria as outlined in the federal regulations at 45CFR46.101(b):

- (2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless:
- (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and
  - (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

As the principal investigator for this study, it is your responsibility to ensure that this research is conducted as outlined in your application and consistent with the ethical principles outlined in the Belmont Report and with USF IRB policies and procedures. Please note that changes to this protocol may disqualify it from exempt status. Please note that you are responsible for notifying the IRB prior to implementing any changes to the currently approved protocol.

The Institutional Review Board will maintain your exemption application for a period of five years from the date of this letter or for three years after a Final Progress Report is received, whichever is longer. If you wish to continue this protocol beyond five years, you will need to submit a new application. Should you complete this study prior to the end of the five-year period, you must submit a request to close the study.

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 black ink that reads "John A. Schinka, Ph.D." in a cursive script.

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

Cc: Christina Calandro, USF IRB Professional Staff



DIVISION OF 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) 974-5618

11/28/2011

Nathan Heflick, M.A.  
Psychology - PCD 4101  
4202 East Fowler Ave.  
Tampa, FL 33620

RE: **Exempt Certification** for IRB#: Pro00006311  
Title: Appearance Focus and Soul Perceptions.

Dear Mr. Heflick:

On 11/27/2011 the Institutional Review Board (IRB) determined that your research meets USF requirements and Federal Exemption criteria as outlined in the federal regulations at 45CFR46.101(b):

- (2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless:
- (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and
  - (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

As the principal investigator for this study, it is your responsibility to ensure that this research is conducted as outlined in your application and consistent with the ethical principles outlined in the Belmont Report and with USF IRB policies and procedures. Please note that changes to this protocol may disqualify it from exempt status. Please note that you are responsible for notifying the IRB prior to implementing any changes to the currently approved protocol.

The Institutional Review Board will maintain your exemption application for a period of five years from the date of this letter or for three years after a Final Progress Report is received, whichever is longer. If you wish to continue this protocol beyond five years, you will need to submit a new application. When your study is completed, either prior to, or at the end of the five-year period, you must submit a Final Report to close this study.

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 black ink that reads "John A. Schinka, Ph.D." in a cursive script.

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



DIVISION OF 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) 974-5618

February 29, 2012

Nathan Heflick  
Psychology  
PCD 4101

RE: **Exempt Certification** for IRB#: Pro00007039  
Title: Impressions of Others

Dear Nathan Heflick:

On 2/28/2012, the Institutional Review Board (IRB) determined that your research meets USF requirements and Federal Exemption criteria as outlined in the federal regulations at 45CFR46.101(b):

(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless:  
(i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

As the principal investigator for this study, it is your responsibility to ensure that this research is conducted as outlined in your application and consistent with the ethical principles outlined in the Belmont Report and with USF IRB policies and procedures. Please note that changes to this protocol may disqualify it from exempt status. Please note that you are responsible for notifying the IRB prior to implementing any changes to the currently approved protocol.

The Institutional Review Board will maintain your exemption application for a period of five years from the date of this letter or for three years after a Final Progress Report is received, whichever is longer. If you wish to continue this protocol beyond five years, you will need to submit a continuing review to and elect Final Report then you will need to submit a new application. Should you complete this study prior to the end of the five-year period, you must submit a request to close the study.



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 black ink that reads "John A. Schinka, Ph.D." The signature is written in a cursive style with a large initial 'J' and 'S'.

John Schinka, PhD, Chairperson  
USF Institutional Review Board

Cc: Various Menzel, CCRP, USF IRB Professional Staff