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**WHEN HER WHOLE EQUALS HER PARTS:
SEEING WOMEN AS OBJECTS RATHER THAN PERSONS**

A Thesis in

Psychology

by

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ABSTRACT

The purpose of this work was to examine when and how women are sexually objectified. Study 1 examined the objectifying gaze to the sex relevant body parts of women. Study 2 examined whether women are interchangeable with other women. Study 3 examined whether women are remembered by their body parts, rather than as whole people. Study 4 examined whether stereotypic human attributes are activated for women. Results support the prediction that women, particularly women with hyper-stereotypic physical features, are more sexually objectified than men. Implications for feminist theory, models of human impression formation, social psychology and a broader objectification theory are discussed.

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Chapter 1

INTRODUCTION

Treating a person as little more than an object, in its cognitive dimension, implies acknowledging no significant differences between such a person and an ordinary, everyday object.

– Lorraine Code (1995, p. 88)

As Code's quote denotes, one objectifies another person when one sees the person as object-like rather than person-like. Importantly, objectifying people assumes that like objects, people lack thoughts, feelings, and desires, that people are interchangeable with other people, and that people are meant to be used by other people (Nussbaum, 1999).

Sexual objectification, or perceiving people as sexual body parts or functions to satisfy other people's sexual wishes, is a central problem in women's lives. When sexually objectified, women are perceived as lacking their own thoughts, feelings, and desires, interchangeable with one another, and as a means toward an end – whatever another person's end may be (MacKinnon, 1989; 2006). The purpose of this research is to examine when women are perceived and remembered as sexual objects.

Sexual objectification becomes visible and apparent to women through the “male gaze.” The male gaze is the look directed toward the bodies rather than the faces of women (Fredrickson & Roberts, 1997; Mulvey, 1975). Visual representations of women show the male gaze when the camera lens is directed toward the sexualized body parts, rather than the faces of women (Archer, Iritani, Kimes, & Barrios, 1983) or through “anchored drift” in which men look directly at women, but women are shown looking off in the distance (Goffman, 1979). The male gaze also emerges in interpersonal interactions when a man visually scans a woman's body or when attention remains fixed on the sexualized body parts of women (Calogero, 2004; Fredrickson & Roberts, 1997).

Because of the pervasiveness of the male gaze, scholars have suggested that women internalize a third person's perspective of their body and body parts, or self-objectify. When women self-objectify, they define themselves in terms of how they look, rather than what they think, how they feel, and what they can do (Fredrickson & Roberts, 1997; see also Bartky, 1990; Berger, 1972; de Beauvoir, 1952; McKinley & Hyde, 1996).

Though self-objectification can vary as a function of individual differences (e.g., there are people who chronically take a third person's perspective of their bodies) or situations (e.g., by wearing revealing clothing in front of a mirror; Fredrickson, Roberts, Noll, Quinn, & Twenge, 1998), it is clear that self-objectification has adverse consequences for women. Self-objectification predicts decreased body satisfaction and self-esteem (Strelan, Mehoffey, & Tiggemann, 2003), lower task self-efficacy (Gapinski, Brownell, & LaFrance, 2003), increased anxiety and feelings of shame (Fredrickson et al., 1998), and decreased cognitive performance on mental tests (Fredrickson, et al.; Gapinski et al.; McKinley & Hyde, 1996; Noll & Fredrickson, 1998; Parsons & Betz, 2001; Tiggemann & Slater, 2001). Not surprisingly, self-objectification is also associated with increased levels of depression and restrictive eating and bulimic tendencies (Muehlenkam, Saris, & Rennee, 2002).

Researchers assume that the male, objectifying gaze is at the root of self-objectification, but have not considered when and with what personal consequences people exhibit the objectifying gaze. According to objectification theory, objectification should be associated with initial attention to and better memory for the sexual body parts of women, and less attention to the individuating and uniquely human parts of women. The present work addresses these issues and fills important theoretical gaps in current considerations of objectification. Specifically, this research examines 1) the objectification of people other than the self, 2) the target features that

may facilitate objectification, and 3) the attention, memory, and stereotypic trait imputation consequences of objectification.

To consider these issues, and articulate testable predictions, I first review prior conceptualizations of objectification across theorists and disciplines. I then integrate objectification theory with cognitive research that differentiates the processes and outcomes involved in object recognition versus person recognition. Finally, I articulate four hypotheses and describe the research that was designed to test each hypothesis. In Studies 1-3, I examine how women's bodies are attended and remembered and in Study 4, I examine whether stereotypic traits are activated for women.

Conceptualizations of Objectification

Feminist scholars have developed the most comprehensive and nuanced theory of objectification. Historically associated with the work of MacKinnon and Dworkin, objectification refers to a central problem in women's lives; namely, that women are often viewed and treated as men's sexual objects and as less than human (MacKinnon, 1989; MacKinnon, 2006; Nussbaum, 1999). More recently, feminist scholars have developed a much more nuanced consideration of objectification (e.g., Brown, 1995; Butler, 1990; Nussbaum, 1999), suggesting that objectification is not an all or nothing phenomenon; it can occur to varying degrees with one or several features. Furthermore, momentary objectification may even be a desired outcome, as when women desire to be seen in terms of their sexual parts in intimate encounters. For the purposes of the current work, I use the term objectification as it was originally considered by MacKinnon, but also integrate Nussbaum's consideration of different types or indicators of objectification. I return to Nussbaum's theorizing of objectification in the general discussion.

Nussbaum (1999) summarized seven ways in which one can treat “as an object what is really not an object, what is, in fact, a human being” (p. 218). First, one can be objectified through *fungibility*, which refers to situations when one is treated as interchangeable with similar persons or other group members (e.g., one woman is indistinguishable from another woman). Second, one can be objectified through the *denial of subjectivity*, which refers to situations when one is treated as lacking feelings and experiences (e.g., the sum total of a woman is her looks). Third, one can be objectified through perceptions of *inertness*, which refers to situations when one is treated as lacking agency (e.g., a woman is to be acted upon and not herself an actor). Fourth, one can be objectified by *instrumentality*, which refers to situations when one is treated as an instrument for another’s use (e.g., a woman’s purpose is to satisfy men’s needs). Fifth, one can be objectified by *violability*, which refers to situations when one is treated as lacking boundaries (e.g., a woman’s body can be violated or broken up). Sixth, one can be objectified by feelings of *ownership*, which refers to situations when one is treated as another’s commodity (e.g., my car is similar to my house is similar to my woman). Finally, one can be objectified by *denial of autonomy*, which refers to situations when one is treated as lacking independence and self-determination (e.g., a woman cannot make her own decisions).

Importantly, beyond sexual objectification, philosophers and feminist scholars have noted that the core features of Nussbaum’s objectification typology can operate and are associated with the objectification of people who belong to many meaningful social groups, like race, age, and disability. Furthermore, physicians may objectify a patient and separate her symptoms from her whole person (e.g., Foucault, 1989). For doctors, patients with similar symptoms are fungible or interchangeable with one another; to the doctor, one patient with a cough, sore throat, and fever is identical to another patient with the same symptoms. Employers may objectify their

employees and separate an employee's work qualities from her whole person (e.g., Marx, 1867 cited in Nussbaum, 1999). To the employer, the employee is an instrument; the sum total of the employee is her work-related capabilities and her total humanity (i.e., subjectivity, agency, autonomy) is irrelevant. Although I focus on sexual objectification in the current work, the objectification of women and the groups described above typify the encounters in which people are perceived as dissimilar and for use to the self rather than as similar and in relation to the self which Buber (1958) referred to as "I" and "It" (objectifying) encounters rather than "I" and "Thou" (non-objectifying) encounters, respectively.

Though selective and brief, the forgoing review highlights a defining feature of objectification across perspectives; namely, objectification refers to the tendency to see and/or treat another person as an object rather than a person. Feminist scholars have developed the most complex and nuanced theories of objectification (MacKinnon, 2006; Nussbaum, 1999) and suggested that there may be similarities between seeing objects and women (Code, 1995). The cognitive bases of objectifying women, however, have yet to be examined. Importantly, cognitive psychologists have extensively documented differences between perception and memory for people and objects (e.g., Tanaka & Farah, 1993; Seitz, 2002; Reed, Stone, Grubb, & McGoldrick, 2006). Integrating the definition of objectification – seeing someone as object-like, rather than person-like – with the finding that object and person recognition are typically different suggests that people may be objectified when they are recognized as objects, rather than persons. I now consider how objects and persons are typically recognized.

Object Recognition vs. Person Recognition

As noted, person recognition and object recognition differ in several regards. For instance, people are assumed to have internal desires, motives, emotions, goals, and agency,

whereas objects are not. Additionally, people are considered in relation to the self, whereas objects are perceived in terms of their use to the self (Buber, 1958; Fiske & Taylor, 1991; Ostrom, 1984). If persons and objects differ in perceived internal desires, agency, and relevance to self, do people attend to and remember different information about persons and objects? Below I present research and findings suggesting that basic attention and memory processes underlie the differences between object and person recognition.

Object recognition is characterized by memory for the parts that make up the whole (Tanaka & Farah, 1993). The recognition of a house, for instance, involves remembering the unique features of a house. Attention goes to the doors, windows, shutters, etc., such that the defining pieces are remembered. As a result, if people see the parts of a house (e.g., doors), they can easily recognize the parts from a previously seen house; the parts that were previously seen are as easily identifiable as a picture of the complete house (Tanaka & Farah).

Person recognition, in contrast, is characterized by memory for the whole rather than the constituent parts. A person's entire face or body (Reed, et al., 2006; Seitz, 2002) is stored as a unified entity in memory. As a result, if people see the body parts of a person (e.g., an arm, a leg, a mouth) they have difficulty differentiating the body parts that were previously seen from the body parts that were not seen. The parts are not useful memory cues because the parts are not uniquely remembered in person perception. Thus, people remember whole faces and bodies better than they remember their constituent parts (Tanaka & Farah, 1993; see also Seitz).¹

Seeing Women as Objects

Together with the definition of objectification, the above findings suggest that objectification occurs when people are attended to and remembered on the basis of their defining body parts, rather than as whole people. According to the rationale presented above, one

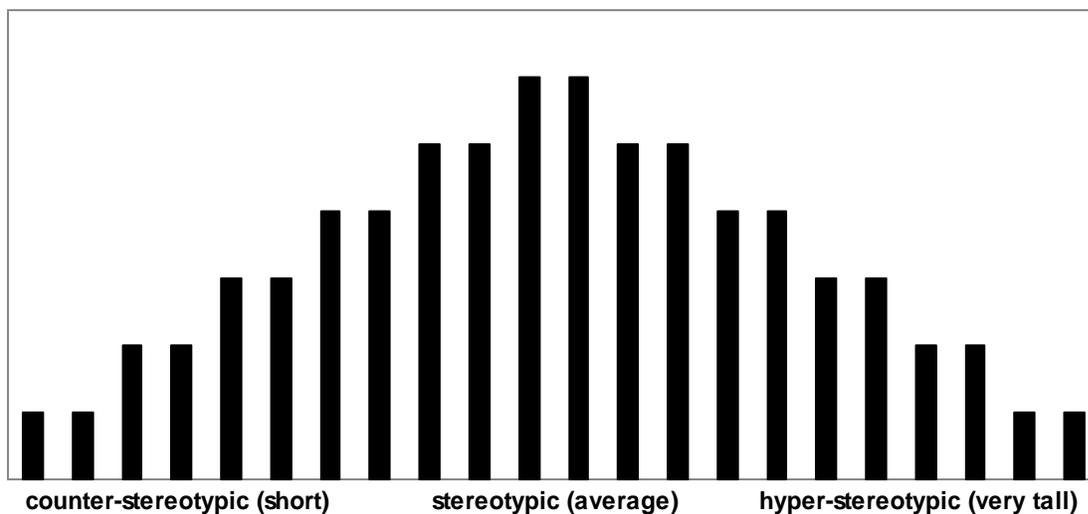
consequence of recognizing a person as an object is that the defining parts of an objectified person's body should be as identifiable and memorable as the whole person.

The defining body parts of a person are those body parts that differ from the "typical" person. When people are asked to think about a typical person in Western cultures, a White, male, able-bodied, young person comes to mind (Zarate & Smith, 1990).² The features that differ from this default are initially attended to in person perception because they provide information of how the person differs from the average person. For women, those features include height, breasts, hair length, babyish facial features, and waist-to-hip ratio. For Blacks, those features include skin tone, hair texture, and broad facial features. The features that differentiate women from men and Blacks from Whites grab attention in initial person perception (Zarate & Smith; see also Stroessner, 1996).

Stereotypes of physical features, or expectations about what typical people from different social groups should look like (e.g., the typical woman should have breasts or the typical Black should have a dark skin tone), also guide initial attention. Stereotypic information is represented in central tendency and variability terms in people's heads. More specifically, stereotypes provide people with information about the type of stereotypic physical attributes the typical group member possesses (central tendency – group average) and whether people from a group vary more or less from the typical group member (group variability, Judd & Park, 1988; Park & Judd, 1990). This information may be represented as a continuum that resembles a normal curve (Park & Judd). The central tendency of the curve represents how most group members are viewed and the width of the curve represents how homogeneous or heterogeneous a group is perceived to be. As people vary from the central tendency, they have more or less stereotypic features. For instance, as Figure 1 shows, men's height can be represented in this way. In the

U.S., the typical man is 5 feet 9 inches tall. Most men fall close to the mean or are *stereotypic*. Some men, however, are much shorter than average and some men are much taller than average. As men deviate from the stereotypic center, they may become much less stereotypic, or *counter-stereotypic* (a short man) or much more stereotypic, or *hyper-stereotypic* (a very tall man). Importantly, stereotypicality can represent actual differences or perceived differences (Schneider, 2004). Sometimes actual differences are similar to perceived differences, as in the height example described above. However, stereotypicality can also represent perceived differences that do not reflect actual differences.

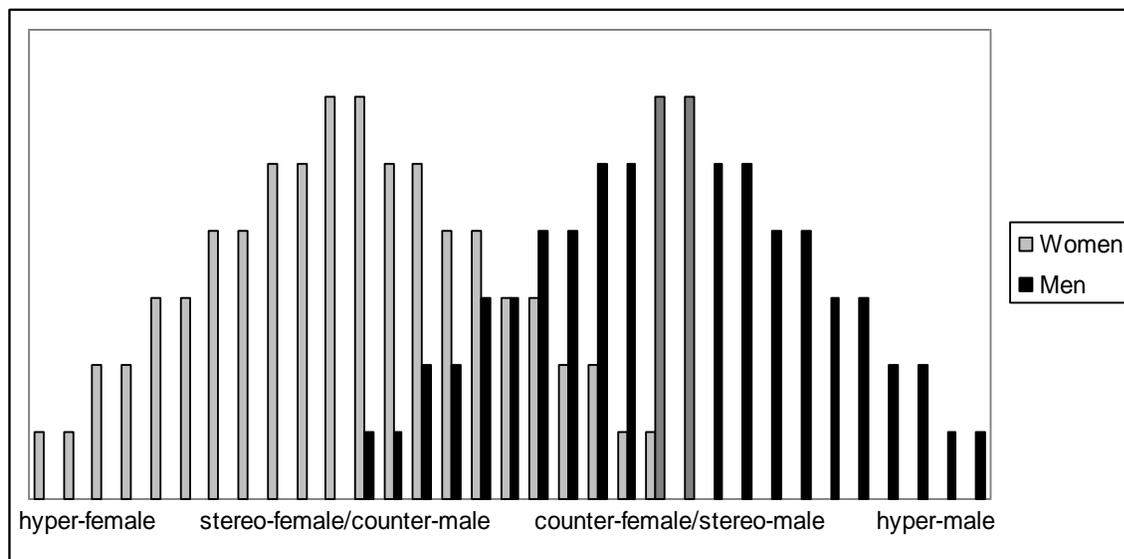
Figure 1. Height stereotypicality continuum for men.



Central tendency and variability not only provide information about average group members, but also provide information about average group members, relative to other groups. For example, the average or stereotypic woman is 5 feet 4 inches tall which is shorter than the stereotypic man. However, some women are much taller and some women are much shorter. Overlaying the central tendency and variability information from men and women provides information about the typicality and variability of height information within each gender and also

relative height between genders. Figure 2 shows stereotypicality distributions for men and women. The light gray bars show women, the black bars show men, and the dark gray bars show the normal person. Because height is a feature that differentiates women and men, as women become taller than expected, they begin to overlap with men that have become less stereotypical or counter-stereotypical. Hyper-stereotypical women and hyper-stereotypical men, on the other hand, are the most different from each other.

Figure 2. Stereotypicality continuum for men and women.



Attention to physical features often provides the basis for social categorization. Social categorization is a split-second decision process in which people are sorted into meaningful social categories based on defining physical features. Because height is a defining physical feature for men and women, shorter people tend to be categorized as women, and taller people tend to be categorized as men. Once categorized, within group similarities and between group differences are accentuated (see Tajfel, 1981). For example, once categorized on the basis of gender, women are seen as more similar to other women and more different from men.

Categorization provides the basis for stereotyping (Ashmore & Del Boca, 1979; Brewer, 1988; Fiske & Neuberg, 1990), or applying content information about how members of a group are similar to one another and different from members of other groups. For example, once a short person is categorized as a woman, stereotypes of women as nurturing and emotional may come to mind. Consequently, the short person is perceived as nurturing and emotional (see Ashmore & Del Boca). In this way, stereotypes allow people to quickly and effortlessly *simplify* – all people in this group are similar and *elaborate* – people in this group have these personality features.³

Models of person impression formation suggest that stereotypic physical features facilitate categorization and stereotyping (Brewer, 1988; Fiske & Neuberg, 1990). When one encounters a stereotypic woman (e.g., with average breasts, average waist-to-hip ratio, and average hair length), the woman should be quickly and effortlessly categorized as a woman (Rosch, 1978) and the stereotypic traits of women should be activated and applied (Brewer; Fiske & Neuberg). By contrast, counter-stereotypic physical features facilitate individuation and subtyping. When one encounters a counter-stereotypic woman (e.g., with smaller breasts, a small waist-to-hip ratio, and short hair), the woman may be difficult to categorize on the basis of her defining stereotypic features. She is not a good group member, so to speak. When a target cannot be easily categorized, attention goes back to the whole person. Thus, people with counter-stereotypic features tend to be individuated (thought of as individual people, Brewer; Fiske & Neuberg) or subtyped (thought of as members of a smaller group that is distinct from the larger social group) because of poor group fit.

Models of person impression formation, however, have ignored the other end of the variability continuum; namely, hyper-stereotypic group members or group members who have

exaggerated stereotypic features. As people become hyper-stereotypic, attention may still go to those defining physical features. However, rather than being stereotyped (as is the case for stereotypic group members) or individuated/subtyped (as is the case for counter-stereotypic group members), attention and memory may remain “stuck” on those exaggerated physical features. By “stuck” I mean that increased attention and memory for body parts may come at the expense of attention and memory for other parts. Consequently, hyper-stereotypic people may become solely represented by their defining physical parts, or objectified.

In sum, as people deviate from the White, male, able-bodied, young default, they are more easily categorized, stereotyped, and perhaps objectified. Hyper-stereotypic people from social groups that already deviate from the normal person, like Blacks, women, people with disabilities, and the elderly, deviate from the normal person even more than the typical person from that group. Thus, those people with hyper-stereotypic physical features may be even more likely to be objectified than those people with stereotypic physical features.

Recent findings on the physical features of Blacks suggest that deviation from normality indeed has consequences for categorization, stereotyping, and prejudice. Hyper-stereotypic Blacks are categorized as more similar to other hyper-stereotypic Blacks than counter-stereotypic Blacks (Maddox & Gray, 2002). Hyper-stereotypic Blacks are stereotyped more than stereotypic Blacks (Blair, Judd, & Fallman, 2004; Blair, Judd, Sadler, & Jenkins, 2002). More prejudice is directed toward hyper-stereotypic Blacks compared to stereotypic and counter-stereotypic Blacks (Livingston & Brewer, 2002).⁴

Furthermore, the facilitation of face recognition of one’s racial ingroup (i.e., other-race bias) in person perception can be qualified when other-race faces are stereotypic (or prototypic, Levin, 1996) or hyper-stereotypic (caricatured, Byatt & Rhodes, 1998) such that the other-race

deficit in face recognition is eliminated. Extending this idea to gender, Zebrowitz (1997) has theorized that gender categorization and stereotyping can vary as a function of exaggerated babyish features which denote hyper-stereotypicality in women.

In sum, objectification should occur when one's attention remains stuck on the defining parts of a person, rather than the whole person and this is likely when people have stereotypic features that deviate from the normal person and may be especially pronounced when they have hyper-stereotypic features. Thus, women, particularly hyper-stereotypic women, should be objectified in terms of those physical features that differentiate them from men.

I now turn attention to the potential indicators of objectification in initial person impression formation. I examine each of these in turn, linking them to the related processes of categorization and stereotyping. If objectified persons are remembered as their defining body parts, rather than whole people, their body parts may receive additional attention and more memory whereas the other parts (like faces or personality characteristics) may be ignored. Specifically, objectification may be associated with 1) the objectifying gaze, or initial attention to defining body parts, 2) fungibility, or the perception that anyone with those defining parts is interchangeable with one another, 3) object recognition, or the recognition of people's body parts, and 4) denial of humanness, or decreased stereotypic trait imputation.

Objectifying Gaze

During person perception, attention may go to those physical features that differ from the norm which is White, male, able-bodied, and young. Theorists have suggested that this occurs in initial person perception, but to my knowledge this has not been empirically examined.

However, according to this suggestion, when comparing men and women, attention should go to the physical features that differ most from the stereotypic male, like the breasts, waists and hips

of women. Because the sex relevant body parts of hyper-stereotypic women differ most from stereotypic men, the sex relevant body parts of hyper-stereotypic women may garner increased attention. Based on this rationale, I predict that the sex relevant body parts (e.g., waists) of women, particularly hyper-stereotypic women, will garner more attention than the sex-relevant body parts of men.

Furthermore, attention could remain “stuck” on sex relevant body parts in two ways. On the one hand, sex relevant body parts could receive the most attention initially, such that sex irrelevant body parts are completely ignored. On the other hand, attention could return to sex relevant parts after initial attention to sex relevant and sex irrelevant body parts. Because initial categorization occurs around 200 milliseconds (ms) (Ito & Urland, 2003) and I predict that the sex relevant body parts of women grab initial attention, the prediction described above should occur around 200 ms. However, to rule out the latter possibility, I also examine attention at 200 ms and 500 ms in Study 1.

Fungibility

Memory for the bodies, but not faces of objectified persons may follow from attention to the sex relevant physical features—or the objectifying gaze—described in Study 1. In other words, increased attention to and memory for the body parts of women may be related to decreased memory to the individuating characteristics, like the faces, of women. Therefore, the increased attention that women receive may not translate into memory for women as individuals.

Furthermore, as noted above, once people are categorized, their within group similarities are accentuated (Tajfel, 1981). In other words, people within a social category are perceived to have similar thoughts, feelings, and behavior to other people in the same social category (Brewer, 1988; Fiske & Neuberg, 1990; see also Blair et al., 2000; Macrae & Bodenhausen,

2002). Theorists have suggested that objectified persons may not only be perceived as similar to one another, but may be perceived as fungible or completely interchangeable with one another (Nussbaum, 1999). With categorization, people from a given social category are assumed to have a whole host of similar person features, like personality characteristics, behaviors, and feelings. With fungibility, on the other hand, people from a given social category are not only similar, but completely interchangeable with one another on the basis of their defining features. Just as any knife with a sharp blade is interchangeable with any other knife with a sharp blade in object recognition, any woman with large breasts may be interchangeable with any other woman with large breasts. When objectification occurs, people may view a subset of targets from within a social category (e.g., hyper-stereotypic women) as interchangeable with one another on the basis of physical features, rather than social category per se.

In Study 2, I examine whether women are fungible. Beyond the typical accentuation of similarities facilitated by basic categorization processes, whereby women come to be viewed as similar to one another, I predict that women, particularly hyper-stereotypic women, will be completely interchangeable with each other, whereas men will be individuated.

Memory for Body Parts and Whole Bodies

Whole bodies are remembered better than parts of bodies, whereas whole objects and parts of objects are equally remembered (Seitz, 2002; see also Reed et al., 2006). In Study 3, I examine whether gender and stereotypicality of the target may qualify this classic finding. One consequence of increased attention to body parts is that objectified persons may be recognized on the basis of their defining body parts, and not as whole people – they may be remembered as object-like, rather than person-like. The over-attentiveness to sex relevant body parts of women's bodies should make the sex relevant body parts as identifiable and memorable as whole

bodies. Thus, I predict that sex relevant body parts recognition will equal whole body recognition for women, particularly hyper-stereotypic women, while sex relevant body parts recognition for men will be significantly less than whole body recognition.

Denial of Humanness

The denial of humanness may also result from objectification. In an attempt to address the denial of humanity, Code (1995) equated objectification with stereotyping. She noted that stereotyped people are not considered individually human. From a social psychological perspective, however, objectification and stereotyping differ in important ways. As Code suggested, stereotyped people fail to be recognized as individuals. However, according to social psychological perspectives, when stereotyped, people are still given human (though stereotypic) traits. The denial of humanness, however, implies that human trait imputation – even stereotypic trait imputation – may be completely blocked. Thus, in this work, I examine decreased stereotypic trait activation as evidence for the denial of humanness.

If individuation is on one end of the continuum and stereotyping is on the other end, as classic models of person perception suggest (Brewer, 1988; Fiske & Neuberg, 1990), the present work suggests that objectification is a step beyond stereotyping and away from individuation. When objectified targets are perceived in terms of their defining body parts and only in terms of their parts, stereotypic traits may be less accessible. As a result, I predict that stereotypic traits will not be activated when people are objectified.

In Study 4, I examine whether there is less stereotypic trait activation when people are objectified. Attending to (Study 1) and remembering (Study 2 and Study 3) the body parts of women may lead to less stereotypic trait activation. If women are seen as objects, they may also

be seen as lacking stereotypic traits. Thus, I predict that stereotypic traits will be less activated for women, particularly hyper-stereotypic women, but not men.

In sum, the goal of the present work is to examine attention to and memory for the bodies of men and women and stereotypic trait activation. Toward this end, I examine attention, memory, and stereotypic trait activation for stereotypic and hyper-stereotypic men and women, using procedures that have been modified from social and cognitive psychology.

Stimulus Material Creation and Pilot Testing

Two hundred and fifty undergraduates (125 females, 125 males) were photographed from the knee to the head in white tank tops and blue jeans using a digital camera. Photoshop was used to alter the images by widening and narrowing the chest, waist, and hip size. Hyper-stereotypic female images had larger breasts, smaller waists, and larger hips (resembling an hourglass) than stereotypic female images. Hyper-stereotypic male images had broader chests and smaller waists and hips (resembling the letter “T”) than stereotypic male images.

Twenty undergraduates (10 female, 10 male) were then brought into the lab and asked to rate either the male or female photographs. Participants completed the following sentence using a 9-point Likert scale, “For a woman (or a man) this person appears to have a _____ body,” (1=much less stereotypic, 5=stereotypic, 9=much more stereotypic). Participants also rated the bodies on attractiveness using a 9-point Likert scale (1=not at all attractive, 9=extremely attractive).

Three sets of analyses were performed to select male and female, stereotypic and hyper-stereotypic targets. First, difference scores were calculated by subtracting the overall mean (for each gender) from the mean rating of stereotypicality on each photograph. Photographs that

were significantly above the mean were classified as hyper-stereotypic. Photographs that were not significantly different from the mean were classified as stereotypic.

Second, within target gender and classification group, photographs were submitted to within participant analyses of variance tests (ANOVAs) to examine significant differences in perceived stereotypicality and attractiveness within hyper-stereotypic groups and stereotypic groups. Any photograph that significantly differed from others was eliminated until there was no significant variation within target gender (male or female) and target feature (stereotypic or hyper-stereotypic) (stereotypicality $F_s < 2.11$, attractiveness $F_s < 1.2$).

Third, within target gender, photographs were submitted to ANOVAs to examine significant differences in perceived stereotypicality and attractiveness between hyper-stereotypic groups and stereotypic groups. There were significant differences in stereotypicality ratings of stereotypic and hyper-stereotypic groups. For male targets, hyper-stereotypic photographs ($M=6.40$) were significantly more stereotypic than stereotypic photographs ($M=3.14$), $F(1, 19)=203.06$, $p < .0001$. For female targets, hyper-stereotypic photographs ($M=6.49$) were significantly more stereotypic than stereotypic photographs ($M=3.03$), $F(1, 19)=134.28$, $p < .0001$. There were also significant differences in attractiveness ratings of stereotypic and hyper-stereotypic groups. Hyper-stereotypic male targets ($M=4.52$) were perceived as more attractive than stereotypic male targets ($M=2.45$), $F(1, 19)=12.11$, $p < .02$. Hyper-stereotypic female targets ($M=4.97$) were perceived as more attractive than stereotypic female targets ($M=2.95$), $F(1, 19)=15.99$, $p < .0072$. The attractiveness findings were expected, given that sexual dimorphism is considered attractive (Zebrowitz & Rhodes, 2002). Importantly, however, there were no significant differences between groups on attractiveness ratings of faces, $F_s < 1$.

Chapter 2

STUDY 2: THE OBJECTIFYING GAZE

The first study examined the objectifying gaze. I predicted that the sex relevant body parts of women would be attended to more than the sex relevant body parts of men. In addition, as noted above, I expected this tendency to be particularly strong when the target was a hyper-stereotypic woman presented for 200 ms.

To test this prediction, I used a dot-probe (MacLeod, Mathews, & Tata, 1986). In typical dot-probe experiments, stimuli are presented on a computer screen. After a short delay, the stimulus is either replaced with a dot or a blank screen and participants are asked to indicate whether they have seen the dot. People are faster at identifying the dot when it appears beneath an attention-grabbing portion of the stimulus. If the sex relevant body parts of women are attention-grabbing, then the dot should be identified more quickly when it appears where sex relevant body parts versus sex irrelevant body parts of women have been.

Method

Participants and Design

Participants were 76 undergraduate students (39 female, 36 male) enrolled in psychology courses at the Pennsylvania State University. Participants received partial course credit in return for their participation. This study used a length of presentation (200 ms or 500 ms) X target feature (stereotypic or hyper-stereotypic) X target gender (male or female) X type of body part (sex relevant or sex irrelevant) X participant gender (male or female) mixed model design. Length of presentation, target feature, target gender, and type of body part were within-participant factors. Participant gender was a between-participant factor.

Procedure

Participants were brought into the lab in groups of one to ten persons. After signing consent statements, participants completed 16 practice trials and 96 experimental trials of a dot-probe task (MacLeod et al., 1986). On each trial, a black fixation cross was presented in the middle of a white screen for 1500 ms. A stereotypic male target, hyper-stereotypic male target, stereotypic female target, or hyper-stereotypic female target then appeared in the upper left, upper right, lower left, or lower right quadrant of the screen. Each target remained on the screen for either 200 ms or 500 ms. When the target was removed, the participant's task was to indicate whether or not a dot appeared on the screen. In two thirds of the trials, the dot appeared in a location previously occupied by a target's sex relevant body part (i.e., waist) or sex irrelevant body part (i.e., arm). In the other third of the trials a dot did not appear. The participants were instructed to press the space bar key if they saw the dot. If participants directed their attention to sex relevant body parts, they should be quicker to press the space bar when the dot appeared where the sex relevant body parts were than when the dot appeared where the sex irrelevant body parts were.

The trials were created by crossing length of presentation (200 ms or 500 ms), target feature (stereotypic or hyper-stereotypic), target gender (male or female) and type of body part (sex relevant or sex irrelevant). More specifically, participants completed 32 trials following the presentation of targets for 200 ms and 32 trials following the presentation of targets for 500 ms. Participants saw each target only once. Within the 200 ms and 500 ms times, 16 male and 16 female targets were randomly presented. Of the male and female targets, half were stereotypic and the other half were hyper-stereotypic. In half of the trials, the dot appeared behind the chest or waist. In the other half of the trials, the dot appeared behind the arms or legs.⁵ See Appendix

A for a sample trial. There were also 32 filler images in which a dot did not appear after removal of the image.

Results

Reaction time served as a measure of attention or the gaze; shorter reaction times indicated more attention to the body part behind which the dot appeared. To eliminate outliers, reaction times faster than 150 ms and slower than 1500 ms were removed from analyses (Wittenbrink, Judd, & Park, 1997). Data were log transformed to correct for positive skew. The log transformed values were submitted to analyses, but means in milliseconds associated with significant effects are reported to aid data interpretation.

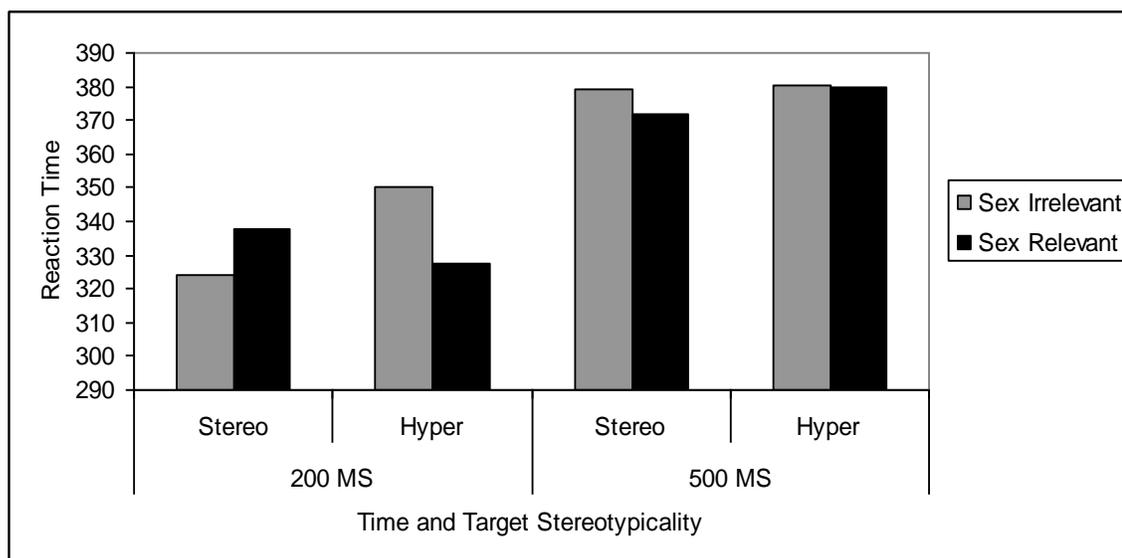
Log transformed mean reaction times were submitted to a length of presentation (200 ms or 500 ms) X target feature (stereotypic or hyper-stereotypic) X target gender (male or female) X type of body part (sex relevant or sex irrelevant) X participant gender (male or female) mixed model ANOVA. Length of presentation, target feature, target gender and type of body part were within-participants factors in this analysis. Participant gender was a between-participants factor. A length of presentation X target feature X target gender X type of body part interaction was predicted. Attention to the sex relevant body parts of female targets (e.g., waists), particularly hyper-stereotypic female targets, at 200 ms was predicted to drive this interaction.

Two significant main effects emerged from this analysis. A main effect of length of presentation, $F(1, 72)=57.96, p<.0001$, revealed shorter reaction times for targets that appeared for 200 ms ($M=335$ ms, $SD=54$) than 500 ms ($M=377$ ms, $SD=72$). A main effect of target feature, $F(1, 72)=8.17, p<.006$, further revealed shorter reaction times for stereotypic targets ($M=353$ ms, $SD=62$) than hyper-stereotypic targets ($M=359$ ms, $SD=58$). The two main effects also interacted, $F(1, 72)=5.47, p<.03$. There was a greater difference in reaction times between

hyper-stereotypic targets and stereotypic targets when the images appeared for 200 ms (stereotypic $M=330$ ms, $SD=60$; hyper-stereotypic $M=339$ ms, $SD=54$) than 500 ms (stereotypic $M=375$ ms, $SD=74$; hyper-stereotypic $M=379$ ms, $SD=78$).

The above effects were, however, qualified by an interaction between length of presentation, target feature, and type of body part, $F(1, 72)=12.53$, $p<.0008$. The mean milliseconds corresponding to this interaction are presented in Figure 3. To interpret the interaction, reaction times to targets that were presented for 200 ms versus 500 ms were submitted to separate target feature (stereotypic or hyper-stereotypic) X type of body part (sex relevant or sex irrelevant) repeated measure ANOVAs. As shown in the left side of Figure 3, a target feature X type of body part interaction, $F(1, 74)=13.58$, $p<.0004$, emerged for targets that appeared for 200 ms. By contrast, as shown on the right side of Figure 3, no significant effects emerged in responses to targets that appeared for 500 ms, all $F_s<1.53$.

Figure 3. Reaction time for target feature, type of body part, and length of presentation.

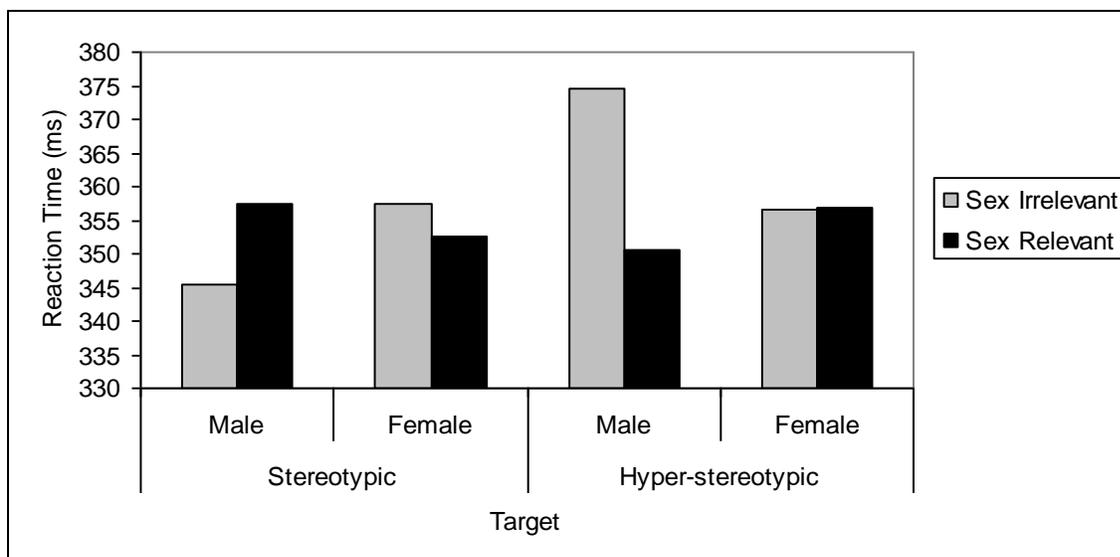


The interaction that emerged at 200 ms was driven by responses to stereotypic and hyper-stereotypic targets. Reactions to stereotypic targets were faster when the dot probe appeared

behind sex irrelevant body parts ($M=323$ ms, $SD=64$) than sex relevant body parts ($M=338$ ms, $SD=70$), $F(1, 74)=6.40$, $p<.02$. The reverse was true of reactions to hyper-stereotypic targets; responses were faster when the dot probe appeared behind sex relevant body parts ($M=328$ ms, $SD=54$) than sex irrelevant body parts ($M=350$ ms, $SD=66$), $F(1, 74)=10.40$, $p<.002$.

The only other significant effect to emerge from this analysis was an unpredicted interaction between target feature, type of body part, and target gender, $F(1, 72)=8.17$, $p<.006$. The means for this interaction are presented in Figure 4. To interpret the interaction, reaction times for stereotypic and hyper-stereotypic targets were submitted to separate type of body part (sex relevant or sex irrelevant) X target gender (male or female) repeated measures ANOVAs. Among stereotypic targets, a type of body part X target gender interaction emerged, $F(1, 74)=4.93$, $p<.03$.

Figure 4. Reaction time for target feature, target gender, and type of body part.



As shown in the right side of Figure 4, reaction times to hyper-stereotypic male targets were faster when the dot was behind sex relevant body parts ($M=351$ ms, $SD=58$) than sex irrelevant body parts ($M=374$ ms, $SD=76$), $F(1, 74)=10.87$, $p<.002$, whereas reactions to hyper-

stereotypic female targets did not differ as a function of type of body part, $F < 1$. By contrast, as shown in the left side of Figure 4, reactions to stereotypic male targets were faster for the sex irrelevant body parts ($M = 343$ ms, $SD = 68$) than sex relevant body parts ($M = 358$ ms, $SD = 76$), $F(1, 74) = 6.18$, $p < .02$. Reactions to stereotypic female targets, however, did not differ as a function of type of body part, $F < 1$.

Discussion

The purpose of Study 1 was to examine the objectifying gaze, or initial attention to sex relevant body parts. The results from this study indicate that initial attention – at 200 ms – went to the sex relevant body parts of hyper-stereotypic targets and the sex irrelevant body parts of stereotypic targets. This tendency held, however, regardless of target gender; initial attention was directed at the sex relevant body parts (vs. sex irrelevant body parts) of both hyper-stereotypic women and hyper-stereotypic men, but not stereotypic women and stereotypic men. These effects were evidenced by the significant interaction between length of presentation, target stereotypicality, and type of body part (see Figure 3). A second interaction between target feature, target gender, and type of body part indicated that attention went to the sex relevant features of hyper-stereotypic male targets and sex irrelevant features of stereotypic male targets, but did not vary for female targets (see Figure 4).

These findings document several novel effects. First, the objectifying gaze seems to emerge in initial attention, as evidenced by the fact that attention to the sex relevant versus irrelevant body parts of hyper-stereotypic people emerged at 200 ms but not 500 ms (Figure 3). The absence of similar effects at 500 ms or effects at 500 ms but not 200 ms, rules out the possibility that people initially attend to the sex relevant and sex irrelevant body parts equally and later return attention to the sex relevant body parts.

Second, consistent with the idea that attention goes to the body parts that deviate from normal group members (e.g., stereotypic men or stereotypic women), targets that deviated from the normal group member in the direction of being hyper-stereotypic (see Figure 2) captured the immediate gaze of the participants in Study 1. This finding suggests that people may be more sensitive to deviations from normality. Considering the stereotypicality continuum presented at the outset, hyper-stereotypic women clearly deviate most from the normal stereotypic male and they indeed received attention. However, even male targets that deviated from the normal stereotypic male – those men with hyper-stereotypic features – received attention.

The findings of Study 1 also have implications for theory and research on the person impression formation, the objectifying gaze, and Studies 2-4. First, the attention findings were somewhat driven by attention to men rather than women. Although this result is somewhat surprising given the objectification prediction Study 1 was intended to examine, it may be related to attention to threat. More specifically, prior research shows that initial attention goes to threatening people (Ito & Urland, 2003). For instance, White people attended more to the faces of Blacks and men which are more stereotypically threatening than the faces of Whites and women. Findings also show that people with angular (i.e., stereotypically masculine) features are especially likely to be perceived as threatening compared to people with rounded features (Aronoff, Barclay, & Stevenson, 1988). This rationale implies that hyper-stereotypic men are attended to because they are threatening whereas hyper-stereotypic women are attended because they are objectified.

The objectifying gaze described by women in their everyday lives and in feminist theory may be unrelated to initial attention to the sex relevant body parts of women. Although the sex relevant body parts of hyper-stereotypic women grabbed attention, this was not the case for

stereotypic women. In other words, there is nothing so attention-grabbing about the sex relevant body parts of women in these studies, such that attention remains stuck on them in initial attention. However, in this study, everyone was wearing a white tank top which was not designed to draw attention to sex relevant parts. In the real world, women's clothing is designed to highlight their sex relevant body parts. Thus, people may attend to the sex relevant body parts of both hyper-stereotypic and stereotypic women in the real world. In future studies, I will examine the gaze for people wearing gendered clothing.

Although feminist theorists have suggested that objectification occurs by men to women (MacKinnon, 1989; 2006), the present findings suggest that the objectifying gaze is not only directed at women by men. Although the objectifying gaze has been referred to as the male gaze by researchers and scholars, participant gender was not a significant predictor of the gaze reported in Study 1. The current work suggests that men and women initially attend to the same physical features. Additionally, the objectifying gaze was not directed at women only. Instead, the objectifying gaze was directed at those people with hyper-stereotypic physical features.

An integration of the foregoing points leads to competing possible explanations for the findings of Study 1, which were partially consistent with predictions, but somewhat surprising in other regards. On the one hand, attention to the sex relevant features of hyper-stereotypic women and men may be related to objectification, such that both hyper-stereotypic women and hyper-stereotypic men are objectified. In other words, as *anyone* deviates from the normal group member, they may be considered fungible (in Study 2), recognized as objects (in Study 3), and less stereotyped (in Study 4).

On the other hand, initial attention to sex relevant features may not necessarily be an indicator of objectification. Instead, the sex relevant body parts of hyper-stereotypic men may be

attended to because hyper-stereotypic men are threatening, whereas the sex relevant body parts of hyper-stereotypic women may be attended to because hyper-stereotypic women are objectified. Thus, hyper-stereotypic men may not be perceived as fungible, as objects, or as less stereotypic, whereas women, particularly hyper-stereotypic women, may be perceived as fungible, as objects, and as less stereotypic. Study 2 builds on Study 1 because it examines whether fungibility or memory for bodies, but not faces follows from initial attention to sex relevant body parts.

Chapter 3

STUDY 2: FUNGIBILITY

As noted at the outset, Nussbaum (1999) suggested that one indicator of objectification may be fungibility or interchangeableness. Furthermore, initial attention to sex relevant body parts may come at the cost of memory for people as individuals, with sex relevant body parts, but also faces. In other words, beyond assimilation effects that follow from social categorization, objectified targets may become completely interchangeable with one another on the basis of their bodies.

The second study examined fungibility. I predicted that women would be fungible with one another, but men would not be fungible with one another. In addition, as noted above, I expected that this tendency would be particularly strong for hyper-stereotypic women. In light of the findings from Study 1, which showed that attention went to the sex relevant body parts of hyper-stereotypic women and hyper-stereotypic men and not stereotypic women, however, I examined the prediction that hyper-stereotypic men would also be fungible with other hyper-stereotypic men and that stereotypic women would not be fungible with other stereotypic women.

To test these predictions, I used fungibility paradigm that was modified from previous measures of categorization (e.g., who-said-what paradigm, Taylor, Fiske, Etcoff & Ruderman, 1978; confusions task, Overbeck & Park, 2001). Stereotypic female targets, hyper-stereotypic female targets, stereotypic male targets, and hyper-stereotypic male targets were presented. In a subsequent surprise matching task, participants were asked to match bodies to faces of previously shown targets. If women are remembered as fungible with one another, then the bodies and faces should be mismatched most for women, particularly hyper-stereotypic women.

Method

Participants and Design

Participants were 66 undergraduate students (51 females, 15 males) enrolled in psychology courses at the Pennsylvania State University. Participants received partial course credit for participating in the study. This study used a target feature (stereotypic or hyper-stereotypic) X target gender (male or female) X participant gender (male or female) mixed model experimental design. Target feature and target gender were within-participant factors. Participant gender was a between-participant factor.

Procedure

Participants were brought into the lab in groups of one to ten persons. After signing an informed consent statement, participants reviewed photographs of 24 targets. Each photograph was presented on the computer screen for 5000 ms. Photographs were presented in random order. After viewing the 24 targets, participants were given the surprise matching task. During the matching task for female targets, the 12 bodies (6 stereotypic and 6 hyper-stereotypic) of the 12 previously seen female targets were randomly ordered and presented on a computer screen one at a time. As each body was presented, the 12 previously seen faces were presented on top of the body, one at a time. Because factors like neck size and skin tone may have aided memory, a box between body and face was presented and all photographs were black and white. Then participants were shown each of the 12 faces again and were asked to indicate a correct match with an “f” key press and an incorrect match with a “k” key press. As participants indicated a correct match or incorrect match, the next face appeared. Then the procedure was replicated for the next body. Participants performed the same matching task for male targets. The presentation order for the male and female matching tasks was counterbalanced. The extent to which

participants mismatched faces to bodies was used as a measure of target fungibility. See Appendix B for a sample trial.

The mean percentage of correct responses was created for each condition. More specifically, the number of correct responses within each condition was divided by the total number of trials within condition. A mean was then created by averaging each trial within condition and across participants.

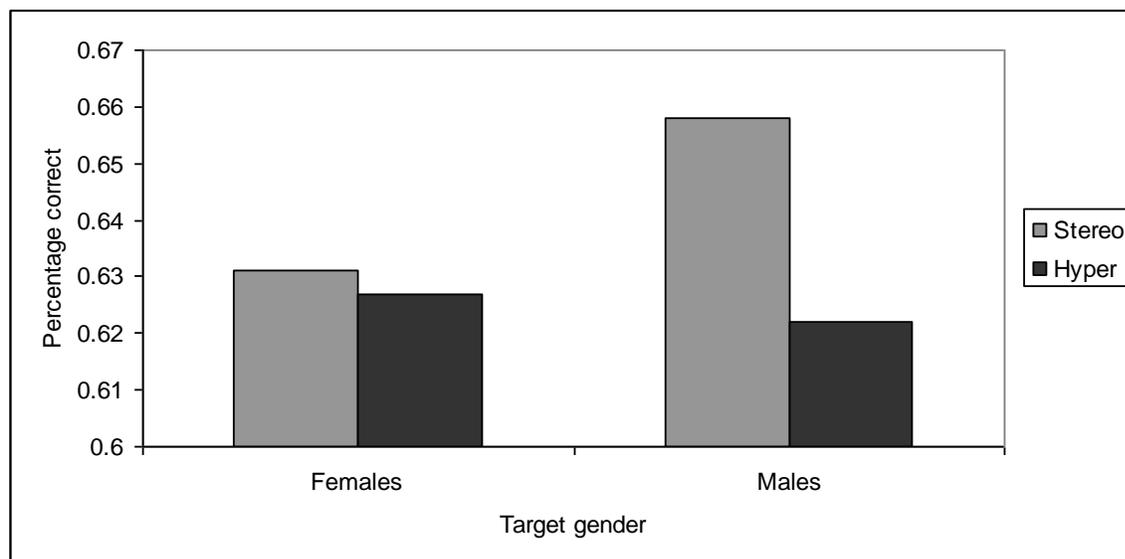
Results

Lower percentages of correct responses represented increased fungibility, whereas higher percentages of correct scores represented individuation. Mean percentages of correct responses were submitted to a target feature (stereotypic or hyper-stereotypic) X target gender (male or female) X participant gender (male or female) mixed model ANOVA. Target feature and target gender were within-participant factors. Participant gender was a between-participant factor. A target feature X target gender interaction was predicted, with the least correct responses for female targets, particularly hyper-stereotypic female targets. However, given the findings from Study 1, a main effect for target feature, with the least correct responses for hyper-stereotypic female targets and hyper-stereotypic male targets was also examined.

Two significant effects emerged from this analysis. First, a main effect of target feature $F(1, 64)=6.99, p<.0104$, revealed that there were fewer correct face-body matches when targets were hyper-stereotypic ($M=.62, SD=.21$) than stereotypic ($M=.64, SD=.20$). Second, as shown in Figure 5, the predicted interaction between target feature and target gender was marginally significant, $F(1, 64)=3.55, p<.065$. There were no differences between stereotypic female targets and hyper-stereotypic female targets, $F<1$. Hyper-stereotypic male targets ($M=.62, SD=.23$),

however, were remembered less well than stereotypic male targets ($M=.66$, $SD=.23$), $F(1, 65)=10.72$, $p<.0017$.⁶

Figure 5. Percentage of correct face-body matches for target feature and target gender.



Discussion

Study 2 was designed to test competing predictions. On the one hand, I predicted that women, particularly hyper-stereotypic women, would be fungible with one another. However, based on the findings from Study 1 in which attention went to the sex relevant body parts of hyper-stereotypic women and hyper-stereotypic men, but not stereotypic women, I also examined whether hyper-stereotypic men were fungible. In Study 2, participants showed the most individuation for stereotypic male targets – normative people. There were more body-face mismatches for any targets that deviated from the normal person, including stereotypic female targets, hyper-stereotypic female targets, and hyper-stereotypic male targets.

Consistent with the prediction that women are fungible, participants had increased mismatches when matching the bodies of hyper-stereotypic female targets and stereotypic female

targets to their faces. However, consistent with the findings from Study 1, hyper-stereotypic male targets were not individuated like stereotypic male targets were.

There are a couple of limitations to the current work. First, my explanation for this finding is that people individuated or remembered faces and bodies of stereotypic men, but only remembered the bodies of stereotypic women, hyper-stereotypic women, and hyper-stereotypic men. Alternatively, however, it could be that people were only attending to the faces of stereotypic women, hyper-stereotypic women, and hyper-stereotypic men and thus, could not remember their bodies. Although viable, I find this possibility highly unlikely, given that the faces of stereotypic and hyper-stereotypic women as well as stereotypic and hyper-stereotypic men were not systematically varied in any way. Thus, the most probable explanation for this finding is that the results from this study occurred because of body variation from the normal person – the stereotypic man.

Second, based on the findings from Study 1 and Study 2, it is unclear whether people initially attended to faces or not. Theorists have suggested that attention may go to faces in initial person perception, because of the wealth of information that faces can provide (e.g., emotions, intent; Zebrowitz & Rhodes, 2002). However, the findings from Study 2 imply the attention may not go to faces or that faces may not be remembered for stereotypic women, hyper-stereotypic women and hyper-stereotypic men. Although the current methodology cannot be used to fully examine this possibility, I am currently running studies that examine attention at additional durations and for faces.

Like Study 1, the results from Study 2 have implications for person impression formation and objectification. The results from Study 2 are consistent with the notion that people are more sensitive to deviations from the norm in person perception than originally predicted.

Considering the stereotypicality continuum, hyper-stereotypic women deviate most from the normal stereotypic man, followed by stereotypic women and hyper-stereotypic men.

The findings reported here are also consistent with previous findings suggesting that similarities are accentuated when people are categorized according to physical features that deviate from the default (Overbeck & Park, 2001; Taylor et al., 1978; Vescio, Snyder, & Butz, 2003). However, the finding that hyper-stereotypic men are fungible with one another and stereotypic men are not, suggests that people may be further categorized within social category on the basis of physical features. People with similar physical features within social groups may become interchangeable with one another, but not their broader social group (hyper-stereotypic men are interchangeable with other hyper-stereotypic men, but not men more generally).

The memory findings from Study 2 are mostly consistent with the attention findings from Study 1. Increased attention to the sex relevant body parts and decreased face and body matches paralleled from deviations from the normal group member and the normal person. Importantly, the findings from Study 1 showed that attention went to the sex relevant body parts of hyper-stereotypic women and hyper-stereotypic men, but the findings from Study 2 showed that people not only had difficulty matching the bodies to faces of hyper-stereotypic women and hyper-stereotypic men, but also stereotypic women. This implies that memory for bodies may not follow from initial attention to the sex relevant body parts. In other words, memory for bodies may be driven by recognition or recall, rather than initial attention or encoding. Furthermore, taken together, the findings from Study 1 and Study 2 also imply that different processes may be occurring for targets from different groups.

As noted in Study 1, the findings from Study 1 and Study 2 have important implications for body part memory and for Study 3. On the one hand, perhaps to the degree that anyone

deviates from the norm, then they will be recognized as objects. If this is the case, then the body parts of stereotypic women, hyper-stereotypic women, and hyper-stereotypic men will be remembered similarly to whole bodies in Study 3.

On the other hand, object recognition may not follow from initial attention and memory in person perception. Given that the attention to the sex relevant body parts of hyper-stereotypic men and fungibility of hyper-stereotypic men may be driven by attention to threat, rather than objectification, attention to the sex relevant body parts and perceptions of fungibility may be unrelated to object recognition for hyper-stereotypic men. In other words, the bodies of hyper-stereotypic men may receive additional attention, but they may still be recognized as people. As feminist scholars have suggested, women may be uniquely remembered as objects compared to men. If this is the case, then the parts of women, particularly hyper-stereotypic women, but not men (stereotypic or hyper-stereotypic) should be remembered similarly to the whole bodies. I examined these possibilities in Study 3. Furthermore, in Study 3, I used another measure of memory that more directly examined memory for body parts when participants were aware that they would be completing a subsequent memory task.

Chapter 4

STUDY 3: BODY PARTS VERSUS WHOLE BODY RECOGNITION

The third study examined object-like recognition of people. I predicted that women would be recognized as object-like, whereas men would be recognized as person-like. In addition, I expected that this tendency would be particularly strong when the target was a hyper-stereotypic woman. In light of the findings from Study 1 that showed that attention went to hyper-stereotypic targets and the findings from Study 2 that showed that all targets that were different from stereotypic men were fungible, I examined whether hyper-stereotypic men were also recognized as objects.

To test these predictions, I used a modified version of the face/body versus object recognition paradigm (Tanaka & Farah, 1993, see also Seitz, 2002). In the traditional version of this paradigm, images of persons or objects are presented. Then participants are asked to complete a recognition task in which either images of two whole persons/objects (the previously shown person/object and a novel, and a slightly modified version of the previously shown person/object) or two body parts of persons/objects (part of the previously shown person/object or a novel, and a slightly modified version of the previously shown person/object) are shown. Traditional findings show that for persons, the whole person is remembered better than the body parts of the person. For objects, however, the parts of the object are remembered just as well as the whole object.

If women are recognized as object-like, then I should find that recognition for the body parts of women equals recognition of whole bodies, whereas recognition for the body parts of men is less than recognition for whole bodies. If anyone who is different than the stereotypic

male default is recognized as object-like, then I should also find equal recognition for the body parts and whole bodies of hyper-stereotypic men.

Method

Participants and Design

Participants were 73 undergraduate students (45 females, 38 males) enrolled in psychology courses at the Pennsylvania State University. Participants received partial course credit for participating in the study. This study used a target feature (stereotypic or hyper-stereotypic) X target gender (male or female) X type of recognition task (body parts or whole bodies) X participant gender (male or female) mixed model experimental design. Target feature, target gender and type of recognition task were within-participant factors. Participant gender was a between-participant factor.

Procedure

Participants were brought into the lab in groups of one to ten persons. After signing an informed consent statement, participants completed a modified version of the face/body versus object recognition paradigm (Tanaka & Farah, 1993, see also Seitz, 2002) to examine memory for body parts and whole bodies. Participants were instructed that they would be completing a memory task in which they would have to decide which target they had previously seen. They were also told that they would do this by viewing the body parts or whole bodies of people whose waists or chests had been modified. Participants completed 4 practice trials (one whole body trial with the waist changed, one whole body trial with the chest changed, one body part trial with the waist changed, and one body part trial with the chest changed) and 48 experimental trials.

In each trial, a black fixation cross appeared in the middle of a white screen for 500 ms. The target then appeared in the middle of the screen for 5000 ms. After a 1000 ms delay, participants were shown two images. On half of the trials, participants saw images of two whole people, one previously seen person and one novel person (i.e., a previously seen person whose body was slightly modified and matched on level of stereotypicality). On the other half of the trials, participants saw images of two body parts (e.g., two waists). One of the body parts belonged to a previously seen person. The second body part was a novel, not previously seen body part. Participants were asked to indicate which one of the two images (whole body or body parts) they previously saw with a key press (e.g., “f” key press to indicate that the left image was previously seen and “j” key press to indicate that the right image was previously seen).

Forty-eight experimental trials were created by crossing target feature (stereotypic or hyper-stereotypic), target gender (male or female) and type of recognition (body parts or whole bodies). More specifically, 24 male targets and 24 female targets were presented. Of each gender 12 were stereotypic and 12 were hyper-stereotypic. In half of the trials, (6 stereotypic and 6 hyper-stereotypic targets) participants were asked to recognize the body parts and in the other half of the trials, participants were asked to recognize whole bodies. See Appendix C for a sample trial.

A mean percentage of correct responses was computed for each condition. Specifically, the number of correct responses within each condition was divided by the total number of trials within condition. Condition means were created by averaging each condition across participants.

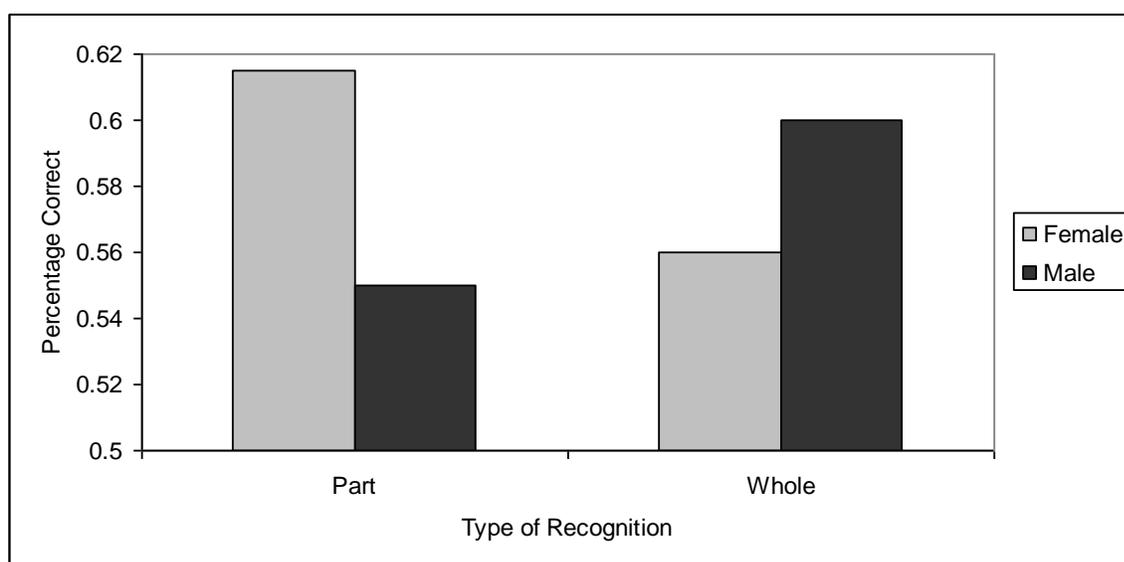
Results

Mean percentages of correct responses were submitted to a target feature (stereotypic or hyper-stereotypic) X target gender (male or female) X type of recognition task (body parts or

whole bodies) X participant gender (male or female) mixed model ANOVA. Target feature, target gender, and type of recognition task were within-participant factors. Participant gender was a between-participant factor. High recognition for body parts compared to whole bodies represented objectification. Body part recognition for female targets, particularly hyper-stereotypic female targets, was predicted to equal whole body recognition, whereas body part recognition for men was predicted to be lower than whole body recognition. If correct, an interaction between target feature, target gender, and type of recognition would be found.

Two significant effects emerged. First, a main effect of participant gender $F(1, 81)=6.55$, $p<.02$, revealed less recognition among male participants ($M=.55$, $SD=.10$) than female participants ($M=.61$, $SD=.09$). Second, as shown in Figure 6, a target gender X type of recognition interaction also emerged, $F(1, 81)=5.32$, $p<.024$. Simple effects tests revealed that the body parts of female targets ($M=.62$, $SD=.20$) were remembered better than the body parts of male targets ($M=.55$, $SD=.21$), $F(1, 82)=3.85$, $p<.054$. For whole body recognition, there was not a significant difference between recognition for male targets and female targets, $F<1.48$.

Figure 6. Percentage correct as a function of target gender and type of recognition.



Discussion

Study 3 was designed to test the prediction that women would be remembered as objects rather than people. The results from Study 3 suggest that female targets were recognized as object-like, while male targets were recognized as person-like. In other words, participants remembered the body parts of female targets better than the body parts of male targets. For whole bodies, no significant differences between men and women emerged. Stereotypicality was not a significant factor in this analysis.

The findings from Study 3 suggest that women are recognized as objects whereas men are recognized as people. This is different from the findings in Study 1 and Study 2. In Study 1 and Study 2, enhanced attention and memory deficits followed from either deviation from the normal group member (i.e., stereotypic men or stereotypic women, Study 1) or deviation from the normal person (i.e., stereotypic men, Study 2). In Study 1, attention went to the sex relevant parts of hyper-stereotypic people, regardless of gender. In Study 2, everyone was fungible, except for stereotypic men. However, in Study 3, women, regardless of stereotypicality, were remembered similarly to objects, whereas men were remembered similarly to people.

Taken together, the findings from Studies 1-3 have important implications for models of person impression formation and objectification theory. When seeing men and women for the first time, people look at those body parts that differ from their idea of the typical person which is a stereotypic man (Study 1). They gaze at the sex relevant body parts of women and men with exaggerated sex relevant body parts. Additionally, people remember the bodies and not the faces of stereotypic women, hyper-stereotypic women, and hyper-stereotypic men such that they cannot accurately match their bodies back to their faces (Study 2). Although the sex relevant features of hyper-stereotypic men warranted additional attention and hyper-stereotypic men were

remembered as interchangeable with one another, the findings from Study 3 indicate that they were still recognized as people. This was not the case for hyper-stereotypic women; attention went to their sex relevant body parts, they were interchangeable with one another, and they were recognized as objects. Similarly, though attention did not initially go to their sex relevant features, stereotypic women were remembered as interchangeable with one another and were recognized as objects.

Thus the different patterns of effects across different targets in Studies 1-3 indicate that they may be driven by different processes. Recognizing people as objects does not seem to follow from initial attention or spontaneous memory. The sex relevant body parts of women are not so attention-grabbing or memorable that people cannot help but to objectify women. Instead, objectification of women occurs when people are given license to focus on the body parts of women.

Taken together, the findings from Studies 1-3, suggest that there may be different forms or degrees of objectification. Specifically, across Studies 1-3, stereotypic men were always considered as complete people – attention went to their sex irrelevant body parts, they were not fungible, and they were recognized as person-like. In contrast, hyper-stereotypic women were always considered as complete objects – attention went to their sex relevant body parts, they were fungible, and they were recognized as object-like. Stereotypic women and hyper-stereotypic men fell between hyper-stereotypic women and stereotypic men – they were neither considered as complete objects, nor were they considered complete people.

To further understand the consequences of varying degrees of objectification, I examine stereotypic trait activation in my fourth and final study. Increased attention and memory for body parts may come at the cost of human trait activation, even stereotypic trait activation. At

the very least, attending to and remembering body parts leaves fewer resources to consider other parts, like personality characteristics. Furthermore, if people perceive other people as objects then stereotypic traits may not come to mind because stereotypic traits are indicative of humans not objects. Taken together with the findings from Studies 1-3, this rationale leads to two competing predictions for Study 4.

On the one hand, as people deviate from the norm for their group – hyper-stereotypic men and hyper-stereotypic women – they may be less likely to have stereotypic traits activated. This would be consistent with previous research suggesting that stereotypes are less activated for people who differ from the norm in other ways, like being counter-stereotypic (see introduction, Brewer, 1988; Fiske & Neuberg, 1990). Thus, stereotypes may be less activated for hyper-stereotypic men and hyper-stereotypic women than stereotypic men and stereotypic women because hyper-stereotypic men and hyper-stereotypic women differ from the norm for their group.

On the other hand, theorizing from feminist scholars and the findings from Study 3 suggest that women are remembered as objects and men are remembered as people. This implies that stereotypic traits may be less activated for women compared to men because stereotypic trait activation is indicative of human trait imputation. Furthermore, models of impression formation and my suggestion that hyper-stereotypic women may be especially objectified point to the possibility that stereotypes may be less activated for hyper-stereotypic women than stereotypic women. Based on this rationale, a competing prediction to the one above is that stereotypic traits will be less activated for women, particularly hyper-stereotypic women than men. I examine these competing possibilities in Study 4.

Chapter 5

STUDY 4: STEREOTYPIC TRAITS

Objectification may have important consequences for stereotypic trait activation. On the one hand, integrating models of impression formation with the findings from Study 1 and Study 2 suggests that stereotypic traits will be less activated for hyper-stereotypic women and hyper-stereotypic men. On the other hand, integrating models of impression formation with feminist theory and the findings from Study 3 suggests that stereotypic traits will be less activated for women, particularly hyper-stereotypic women because stereotypic traits are indicative of human trait imputation.

To test predictions, I used a lexical decision task. A photograph of a stereotypic or hyper-stereotypic man or a woman was presented. Then participants were asked to indicate whether a string of letters appearing on a computer screen was a word or non-word. Embedded in the letter strings were stereotypic words (positive and negative male and female stereotypes).

A pattern of results consistent with objectification theory would show that female stereotypes would be less activated for women, particularly hyper-stereotypic women, than male stereotypes would be activated for men. However, the plausibility of the suggestion that female stereotypes would be less activated for hyper-stereotypic women and male stereotypes would be less activated for hyper-stereotypic men was also considered.

Method

Participants and Design

Participants were 56 undergraduate students (35 females, 21 males) from psychology courses at the Pennsylvania State University. Participants received partial course credit for participating in the study. This study used a target feature (stereotypic or hyper-stereotypic) X

target gender (male or female) X type of word (male stereotype or female stereotype) X valence (positive or negative) X participant gender (male or female) mixed design. Target feature, target gender, type of word, and valence were within-participant factors. Participant gender was a between-participant factor.

Procedure

To test predictions, a lexical decision task (see Macrae, Bodenhausen, & Milne, 1995; Wittenbrink, Judd, & Park, 1997, Macrae, Bodenhausen, Milne, Thorn, & Castelli, 1997) with 966 trials was used. First, a black fixation cross appeared on a computer screen for 500 ms. Then a stereotypic male target, stereotypic female target, hyper-stereotypic male target, or stereotypic female target was presented on the screen for 250 ms. Next, a letter string appeared on the screen. Participants indicated whether the letter string was a word or non-word with a key press. Every target was paired once with each letter string. Please see Appendix D for a sample trial.⁷

The letter strings used in the lexical decision task were created by crossing type of word (male stereotype or female stereotype) X valence (positive or negative). More specifically, there were four positive male stereotypic words (confident, influential, strategic, mechanical)⁸, four negative male stereotypic words (disrespectful, offensive, arrogant, immature), four positive female stereotypic words (organized, supportive, understanding, caring), and four negative female stereotypic words (flighty, deceitful, materialistic, hysterical). Additionally, there were 16 non-word letter strings (e.g., rynshum, challop). The stereotypic words were selected from a pool of words that pilot testing indicated were stereotypically female or male and positive or negative (Vescio, Gervais, & Woodward, 2007). Additionally, on average, each word was equal in length to words from the other categories (for similar word selection strategy, see Macrae et

al., 1997). Mean reaction times to the word and non-word decision were calculated within conditions across participants.

Results

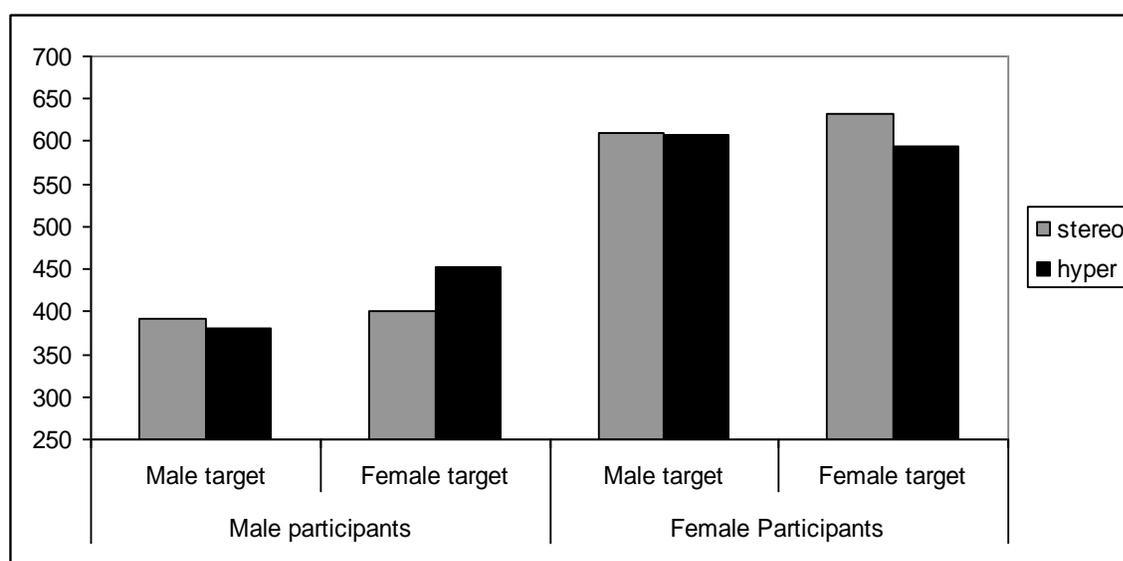
Mean reaction times served as the measure of stereotypic trait activation; slower reaction times indicated less stereotypic trait activation. To eliminate outliers, reaction times faster than 150 ms and slower than 1500 ms were removed from analyses. Data were log transformed to correct for positive skew. The log transformed values were submitted to analyses, but means in milliseconds associated with significant effects are reported.

Log transformed mean reaction times for stereotype consistent words (female stereotypes for female targets and male stereotypes for male targets) were submitted to a target feature (stereotypic or hyper-stereotypic) X target gender (male or female) X valence (positive or negative) X participant gender (male or female) mixed model ANOVA. Target feature, target gender, and valence were within-participant factors. Participant gender was a between-participant factor. A target feature X target gender interaction was expected, with the least stereotypic activation for hyper-stereotypic female targets followed by stereotypic female targets and the most stereotypic activation for male targets.

Three significant effects emerged from this analysis. A main effect of participant gender, $F(1, 54)=11.89$ $p<.0011$, indicated that male participants ($M=406$ ms, $SD=141$) responded faster than female participants ($M=611$ ms, $SD=231$). A main effect of target gender $F(1, 54)=6.89$, $p<.0113$ indicated more stereotypic trait activation for male targets ($M=525$ ms, $SD=236$) than female targets ($M=543$ ms, $SD=219$). Finally, participant gender and target gender interacted with target stereotypicality, $F(1, 54)=6.39$, $p<.0145$.

To interpret this interaction, target gender (male or female) X target stereotypicality (stereotypic or hyper-stereotypic) ANOVAs were conducted separately for male and female participants. For male participants, target gender interacted with target stereotypicality, $F(1, 20)=5.83, p<.0256$, indicating that there was less stereotypic trait activation for hyper-stereotypic female targets ($M=452$ ms, $SD=176$) than stereotypic female targets ($M=400$ ms, $SD=149$), $F(1, 20)=6.85, p<.0166$. There was, however, no difference between stereotypic male targets ($M=392$ ms, $SD=136$) and hyper-stereotypic male targets ($M=381$ ms, $SD=145$). No significant differences emerged for female participants.

Figure 7. Stereotypic trait activation for target feature and target gender for male and female participants.



Discussion

The purpose of Study 4 was to examine whether objectification comes at the cost of stereotypic trait activation. Stereotypic trait activation was assumed to reflect human trait activation. An adverse consequence of attending to and having better memory for physical body parts, rather than whole persons may be that stereotypic traits are less activated. Based on

feminist theory, models of impression formation, and the findings from Study 3, I predicted less stereotypic trait activation for women, particularly hyper-stereotypic women. However, integrating models of impression formation with the findings from Study 1 and Study 2, I also examined the possibility of less stereotypic trait activation for hyper-stereotypic women and hyper-stereotypic men.

The results from Study 4 were partially consistent with the former prediction that stereotypic traits would be less activated for female targets, particularly hyper-stereotypic female targets. Specifically, overall, stereotypic traits were less activated for female targets compared to male targets. Additionally, stereotypic traits were less activated for hyper-stereotypic female targets compared to stereotypic female targets, but only for male participants. No significant effects emerged for female participants.

The finding that stereotypic traits are less activated for female targets compared to male targets is consistent with feminist theory and the finding from Study 3 that female targets were recognized as objects, whereas male targets were recognized as persons. However, at first blush, the finding that participant gender was a significant factor in Study 4 might be somewhat surprising given that significant participant gender effects did not emerge in Studies 1-3. However, Study 4 was notably different than Studies 1-3. Studies 1-3 measured attention to and memory for bodies, whereas Study 4 measured stereotypic trait activation. Because women have experience with being objectified (by themselves and by other people), they may realize that objectified women still have other attributes in addition to their defining physical features.

These results are consistent with the notion that women are considered objects rather than persons. However, because I only examined stereotypic traits, I cannot be sure that more general human traits are less activated for women, particularly hyper-stereotypic women. For example, a

similar pattern of findings for counter-stereotypic and hyper-stereotypic women could be predicted with the current methodology because stereotypic traits should also be less activated for counter-stereotypic women. However, rather than being objectified, counter-stereotypic women should be individuated. To examine this possibility, I plan to examine counter-stereotypic, stereotypic, and hyper-stereotypic women and traits that are more typical of objects (e.g., passive, inanimate) and people (desire, agency).

Additionally, yet another pattern of results occurred in Study 4. I integrate the findings from Studies 1-4 in the general discussion and propose that different targets may be objectified to varying degrees.

Chapter 6

GENERAL DISCUSSION

The goal of this work was to examine when and how women are sexually objectified. When sexually objectified, women are seen as their sexual body parts, rather than humans. Integrating feminist, social psychological and cognitive theory and research on objectification, person impression formation, and object recognition led to four novel hypotheses that were tested in the four studies reported here. Specifically, I examined whether attention would go to the sex relevant body parts of women (Study 1), whether women's bodies would be fungible with each other (Study 2), whether women are recognized as objects (Study 3), and whether stereotypic traits are activated for women (Study 4). Furthermore, I expected that these effects would be particularly pronounced for hyper-stereotypic women. The findings from these studies indicate that objectification may be more nuanced than previously theorized and expected.

The patterns of results varied across studies. In Study 1, attention went to the sex relevant body parts of hyper-stereotypic women, but it also went to the sex relevant body parts of hyper-stereotypic men. Furthermore, the sex relevant body parts of stereotypic women did not garner increased attention. In Study 2, hyper-stereotypic women and stereotypic women were fungible, but hyper-stereotypic men were also fungible; only stereotypic men were individuated. In Study 3, stereotypic women and hyper-stereotypic women were recognized as objects, whereas stereotypic men and hyper-stereotypic men were recognized as people. Finally, in Study 4, stereotypic traits were less activated for women, than men, but this was particularly pronounced for hyper-stereotypic women with male participants. Importantly, attention to sex relevant body parts was assumed to underlie fungibility, object recognition, and less stereotypic trait activation. The varying patterns of effects across studies, however, indicate that this was an

unwarranted assumption. In other words, attention did not remain “stuck” on the sex relevant body parts of women, such that their body parts were remembered at the cost of their individuation as humans.

In sum, for the objectifying gaze, the sex relevant body parts of hyper-stereotypic women and hyper-stereotypic men grabbed attention. For fungibility, stereotypic women, hyper-stereotypic women, and hyper-stereotypic men were fungible, whereas stereotypic men (the norm of people) were individuated. For object recognition, stereotypic women and hyper-stereotypic women were remembered as objects, whereas stereotypic men and hyper-stereotypic men were remembered as people. Finally, for stereotypic trait activation, stereotypes were less activated for women, particularly hyper-stereotypic women (for male participants).

The nuanced and complex pattern of results across studies indicates that objectification may not be an all or nothing phenomena, but rather people may be objectified differently and to varying degrees (see also Nussbaum, 1999). Taken together, the findings from Studies 1-4 indicate that objectification may fall along a continuum. If being seen as a complete person falls along one end of the continuum then being seen as a complete object may fall along the other end of the continuum. Between these two points, however, may be varying degrees of objectification. I now turn attention to how this theoretical framework may explain the findings for stereotypic and hyper-stereotypic men and women across studies.

As the far right side of Table 1 denotes, across studies, stereotypic men were seen as *complete people*; more attention went to their sex irrelevant body parts, they were not interchangeable, they were recognized as whole people, and stereotypic traits were activated. The findings are consistent with models of person impression formation suggesting that men are the norm for human beings and thus, are not easily categorized, stereotyped or objectified.

By contrast, as the far left side of Table 1 shows, hyper-stereotypic women were seen by men as *complete objects*; more attention went to their sex relevant body parts, they were viewed as interchangeable with other hyper-stereotypic women, they were remembered as body parts rather than whole people, and stereotypes were less activated. Importantly, stereotypic traits were less activated for hyper-stereotypic women for male participants, but not for female participants. The objectification of hyper-stereotypic women by male participants is the degree of objectification that I described in the introduction in which people are seen as completely object-like. Female participants also saw hyper-stereotypic women as object-like in Studies 1-3. Rather than only objects, however, female participants saw hyper-stereotypic women as *stereotypic objects*, or objects with stereotypic traits in Study 4.

Similarly, stereotypic women were also less objectified than hyper-stereotypic women, but were not individuated like stereotypic men. As the middle left pane of Table 1 shows, stereotypic women were also seen as *stereotyped objects*. They were interchangeable with other stereotypic women and they were recognized as objects. However, stereotypic traits were still activated.

Finally, hyper-stereotypic men were less objectified than hyper-stereotypic women, but not individuated like stereotypic men. As the middle right pane of Table 1 shows, hyper-stereotypic men were attended to and remembered as *stereotyped people*. Consistent with models of person impression formation, the sex relevant body parts of hyper-stereotypic men were attended to and they were interchangeable with other hyper-stereotypic men, but they were still recognized as people and stereotypic traits were activated. This is more consistent with Code's (1995) conceptualization of objectification in which she equated stereotyping with objectification.

Table 1. Degrees or types of objectification and humanization.

	Hyper-stereotypic women	Stereotypic women	Hyper-stereotypic men	Stereotypic men
Male Participants	S1: Gaze S2: Interchange S3: Object S4: No stereotype <i>Complete Objects</i>	S1: No gaze S2: Interchange S3: Object S4: Stereotype <i>Stereotyped Objects</i>	S1: Gaze S2: Interchange S3: Person S4: Stereotype <i>Stereotyped People</i>	S1: No gaze S2: Unique S3: Person S4: Stereotype <i>Complete People</i>
Female Participants	S1: Gaze S2: Interchange S3: Object S4: Stereotype <i>Stereotyped Objects</i>	S1: No gaze S2: Interchange S3: Object S4: Stereotype <i>Stereotyped Objects</i>	S1: Gaze S2: Interchange S3: Person S4: Stereotype <i>Stereotyped People</i>	S1: No gaze S2: Unique S3: Person S4: Stereotype <i>Complete People</i>

Note. S1-S4 refers to findings from Study 1-Study 4.

These findings and this framework have important implications for the meaning of “difference.” As feminist scholars have noted, women, particularly their bodies, are often defined by their difference from men (Berger, 1972; MacKinnon, 2006). Importantly, the term “difference” does not usually imply equal difference. Instead, difference frequently implies a hierarchy in which those people defined as different or deviant are subjugated to less than human status (MacKinnon, 1989; Schur, 1983). This was certainly the case for women, particularly hyper-stereotypic women who differed most from stereotypic men, in the studies reported here. Furthermore, the framework describing degrees of objectification implies that as people differ from the norm, they may be objectified differently and to varying degrees.

The findings for hyper-stereotypic men also introduce an interesting caveat to the consideration of difference. Perhaps when the normal person is exaggerated, like when men

become very manly men, they can actually benefit from differences from the norm. In other words, difference does not automatically imply devaluation, but rather particular differences are devalued by those in power (Bartky, 1990; Schur). The studies reported here indicate that this is plausible. Although the body parts of hyper-stereotypic men received increased attention and memory, hyper-stereotypic men were still recognized as people and were still attributed stereotypic traits. Because of the cultural value that is often applied to stereotypically masculine traits (e.g., influential) it is even possible that hyper-stereotypic men are given superior human status.

Importantly, although the findings from these studies are mostly consistent with this new theoretical framework, this work was not conducted to test this framework. Thus, the specifics of this framework will be tested in future studies. I now describe additional areas of inquiry that warrant further consideration, including the relationship of the objectifying gaze and objectification, the objectification of counter-stereotypic people, varying degrees of self-objectification, and the importance of considering the body in objectification.

The Objectifying Gaze and Objectification

Like most theories of objectification, the assumption of this work was that the objectifying gaze or attention to the body parts of people underlies objectification. Specifically, objectification theory suggests that the objectifying gaze is at the root of more overt objectifying behaviors and self-objectification (Fredrickson et al., 1998). Furthermore, my predictions on memory and stereotypic trait activation were based on the premise that the objectifying gaze is a necessary precursor. In other words, I suggested that women come to be solely represented by their sexual body parts because attention initially remains “stuck” on those body parts. However, the work reported here showed that the objectifying gaze does not necessarily underlie object

recognition. For example, body parts of hyper-stereotypic men grabbed attention, but they were still seen as people and the sex relevant body parts of stereotypic women did not grab attention, but they were seen as objects.

Attention went to the sex relevant body parts of hyper-stereotypic women and hyper-stereotypic men in Study 1. I suggested that the sex relevant body parts of hyper-stereotypic men may have warranted increased attention because they may be perceived as threatening. In Study 2, hyper-stereotypic men were interchangeable with other hyper-stereotypic men. Extending this to the threat consideration from Study 1 implies that anyone with threatening features was remembered as similar to anyone else with threatening features. This rationale, as well as the idea that people may be objectified to varying degrees, implies that hyper-stereotypic men may be objectified or considered solely as threatening body parts. However, there are two ways that this differs from being considered solely in terms of one's sexual body parts.

First, threat attributions imply agency and competency. One cannot be threatening if one is not perceived as having the capability to harm another. Furthermore, agency and competency are attributes associated with people, not objects. Therefore, although one may attend to and be preoccupied with the threatening parts of hyper-stereotypic men, this may not be associated with seeing men as completely object-like. Indeed, the findings from Study 4 suggest that stereotypic attributes – like being influential – are most activated for hyper-stereotypic men.

Second, although attention-grabbing, the sex relevant body parts of hyper-stereotypic men were remembered less well than whole hyper-stereotypic men (in Study 3). This implies that the sex relevant body parts of men are most threatening or attention-grabbing and memory-worthy when they are associated with whole men. When presented in isolation or object-like terms, the sex relevant body parts of men may be less threatening and less memory-worthy.

Although previous research and the work presented here are consistent with this threat explanation, the studies here were not designed to test this suggestion. To further explore this possibility, I plan to conduct studies in which threat activation is measured in response to the sex relevant body parts of hyper-stereotypic males in isolation, whole hyper-stereotypic male bodies, other threatening objects (e.g., guns) in isolation, and whole hyper-stereotypic male bodies with threatening objects.

According to models of person impression formation and objectification theory on the objectifying gaze, attention should go to the sex relevant body parts of stereotypic women in addition to hyper-stereotypic women. However, the sex relevant body parts of stereotypic women did not initially capture attention, but stereotypic women were fungible and recognized as object-like in subsequent studies. One explanation for these findings is that initial attention does not go to the sex relevant body parts of stereotypic women, such that they are encoded as sex relevant body parts. Rather, when recognizing stereotypic women, only the sex relevant body parts come to mind. This implies that objectification may occur at recall/recognition rather than encoding. Again, though a viable possibility, this was not tested in the current studies. In future studies, attention will be measured at additional durations and studies that can distinguish between encoding and recall/recognition will be conducted.

Importantly, if the objectifying gaze is not an antecedent of object recognition of stereotypic women, this implies that the objectification of stereotypic women may be more subtle than previously thought. If the objectifying gaze is an indicator to women that they are being objectified, then stereotypic women may be unaware that they are being objectified. Like others forms of subtle sexism (e.g., see Vescio, Gervais, Snyder, & Hoover, 2005), object recognition without the gaze may be even more problematic than object recognition with the gaze.

The Objectification of Counter-Stereotypic People

In addition to the stereotypic and hyper-stereotypic men and women examined in this set of studies, other types of people may be objectified to varying degrees. In previous research, the stereotypicality – counter-stereotypicality points on the continuum were considered while the other end of the continuum, namely those people with exaggerated stereotypic physical features, was ignored. Because of the increased possibility for objectification, hyper-stereotypic women and men were compared to stereotypic women and men in the present work. In future studies, however, hyper-stereotypicality and stereotypicality should be compared to counter-stereotypicality. Based on previous research and theorizing that counter-stereotypic men and women are individuated, as well as the findings and theoretical framework reported here, I predict that when counter-stereotypic women have masculine features that they will be individuated and less objectified than stereotypic and hyper-stereotypic women (e.g., a woman with androgynous physical features). However, when subtyped or subgrouped, counter-stereotypic women may still be objectified (e.g., Black women).

Varying Degrees of Self-Objectification

This work also extends considerations of objectification beyond self-objectification (Fredrickson & Roberts, 1997; Fredrickson et al., 1998) to other-objectification. Importantly, the research reported here suggests that women do not merely objectify themselves. In other words, women may self-objectify because other people objectify them in the first place.

Furthermore, in her nuanced consideration of objectification, Nussbaum (1999) not only suggested that people may be objectified along several dimensions and to varying degrees, but she also suggested that in some cases women's objectification may be positive. Unlike, the positive objectification of men described above, in which men may be seen by others as superior

humans, Nussbaum considered the possibility that in some situations women may desire to be objectified by another or may self-objectify to varying degrees. Although this complicates objectification, it is easy to imagine situations in which one may want to be considered as only a sexual being by themselves and by others. However, to me, a critical part of positive objectification is that women may desire or want this to occur. In other words, their objectification is associated with some agency or desire. In future studies, I would like to expand Nussbaum's claims by examining objectification in the context of understanding women's desire.

The Body and Objectification

This work also brings a consideration of the body back into social psychological theory. Social psychology is defined as the scientific study of how people's thoughts, feelings, and behaviors are influenced by the actual, imagined, or implied presence of others (Allport, 1985). The means by which people influence and are influenced by others is through the body. However, social psychologists have largely ignored the body and instead have focused on what is going on in people's heads (Radley, 1991). A focus on the body is critical to an understanding of objectification as well as other social phenomena.

First, although social interactions rarely occur without the body, most social psychological experiments do not include the body for consideration. Importantly, bringing bodies back into the lab may change conventional findings. For example, in studies of stereotyping, results markedly differ when people are shown names of social groups (Devine, 1989) compared to faces of social groups (Lepore & Brown, 1997). Specifically, when showing names of different social groups, stereotyping occurred automatically (Devine), whereas when showing the faces of people from different social groups, stereotyping only occurred for people

who were already high in prejudice (Lepore & Brown, see also Macrae, Bodenhausen, Milne, 1995 for a similar argument on automatic categorization). The work reported here further suggests that showing people's whole bodies may qualify social processes beyond showing names or faces. For example, in Study 4, stereotypes were less activated for female targets compared to male targets. One reason for the divergence from previous research findings in which stereotypes are activated for stereotypic women is that women's whole bodies, rather than just faces or names, were shown.

Second, a focus on the body is central to understanding objectification. Although theorists have suggested that one may be objectified according to non-physical features (e.g., Gruenfeld, 2004), being objectified along physical features may be especially problematic. When one is physically objectified, objectification is more likely to occur across people and across situations (Bartky, 1990). For instance, an employer may objectify his employee by the parts that are relevant to her job. Although the employee would be objectified in that particular situation, once the employee leaves work, she will no longer be objectified. On the other hand, an employer may objectify his employee by her sexual body parts. Once employee leaves work, however, objectification by others is likely to occur because those sexual body parts are visible. Thus, objectification, on the basis of physical features, may be a particularly problematic form of objectification.

In a similar vein, equating one with one's body parts or body functions is also problematic beyond the mere visible nature of bodies. In classic considerations of the mind and the body, the mind is valued more than the body. Not surprisingly, "women's work" and traditional gender roles have been defined in terms of taking care of bodies – bearing children, taking care of the bodily needs of one's husband and children, and providing a safe and clean

home to take care of one's body. In other words, bodies have been traditionally defined as feminine and devalued (MacKinnon, 2006).

Limitations

This work is the first to examine the objectifying gaze, fungibility, object recognition and stereotype activation for stereotypic and hyper-stereotypic men and women in the lab. Like most initial lab inquiries, this preliminary work has some important limitations. I briefly describe the limitations of my experimental approach across studies below.

First, although the hypotheses presented and tested in Studies 1-4 were intended to examine indicators of objectification, the different patterns of results suggest that perhaps several processes may be driving the effects. Furthermore, according to the idea that people may be objectified to varying degrees, then different processes may occur for different groups. There is no way to disentangle these explanations in the current work, but in future studies, the measures used in Studies 1-4 could be included in one study and correlated. Given objectification theory and findings from the current studies, one expected finding is that the measures of attention, fungibility, object recognition, and stereotype activation would be correlated for hyper-stereotypic women.

Second, stimuli presented in this study were photographs, not actual people. Although allowing for experimental control, this may have facilitated the tendency to objectify. One could argue that people may objectify photographs because they literally are objects; they are pictures appearing on the screen and not actual people. However, not everyone was equally objectified. Women, particularly hyper-stereotypic women were objectified to a greater degree than men. Not surprisingly, these are the people that also report increased objectification in the real world. Thus, although objectification may be exaggerated in the studies reported here, it is nonetheless a

phenomenon that women experience in their everyday lives. Furthermore, one could make the argument that objectification would be even more likely to occur in the real world compared to the lab because objectification could be used as a cognitive short-cut in which people do not have to consider the thoughts, feelings, and desires of other people. With the many competing cognitive demands that simultaneously occur in the real world, objectification may be more likely in the real world than in the lab where the participants are doing one thing. Finally, though less realistic, using photographs to examine objectification rules out the possibility that objectified people are somehow acting in ways (e.g., wearing revealing clothing) that lead to their own objectification.

In a related vein, although I examined the recognition of women as object-like rather than person-like, I did not directly compare attention to and memory for objects and people. Instead, I drew on previous research on what object recognition looks like and I found that women were recognized similarly to objects rather than people. In future studies, directly comparing object recognition to recognition of stereotypic and hyper-stereotypic men and women would clarify whether women and object recognition are the same.

Toward a Broader Theory of Objectification

Importantly, the work presented here is part of a broader line of research in which I am examining cultural, situational, and individual difference factors that may qualify perceptions of stereotypicality and objectification, the generalizability of objectification to other social groups (e.g., Blacks, people with disabilities), and the consequences of objectification for targets of objectification. I describe each of these lines of research, placing the current research in the context of my larger program of research.

The primary focus of this work was to examine whether target features, like target stereotypicality and target gender, facilitate objectification. Importantly, the perception of target features obviously depends on cultural, contextual, and individual difference factors. There may be cultures, situations, and people who simply do not differentiate between stereotypic and hyper-stereotypic targets or male and female targets and objectification may function differently in these cultures in these situations with these people. To initially examine cultural differences, I am conducting studies in Germany and Italy, which vary in levels of sexism (Glick et al., 2000) from the United States and likely vary in objectification. In future inquiries, I would like to examine objectification in non-Western cultures as well. To initially examine individual differences, I am examining how differences in goals may facilitate objectification. Finally, to initially examine situational differences, I am examining how gender identity threat may exacerbate objectification.

Although the focus of this paper was sexual objectification, I am also examining racial objectification in a set of parallel studies to see if objectification is a general intergroup phenomenon that supersedes gender. Consistent with the idea that objectification may span many social groups in addition to women, self-objectification tendencies extend beyond White women to Asian, African American, and Hispanic women and men (Hebl, King, & Lin, 2004) and gay men (Martins, Tiegeman, & Kirkbride, 2007). In future research, I plan to examine whether people from other marginalized groups (e.g., people with disabilities, the elderly) are objectified as well as how intersections of identity (e.g., Black women, Hill Collins, 1990) may lead to unique instances of objectification. For example, rather than having hyper-visible and memory-worthy bodies, the bodies of Black women may become invisible when objectified.

As noted at the outset, self-objectification has a number of adverse consequences. Whether these same consequences hold when people are objectified by other people is still an empirical question. In a series of studies, I am examining the consequences of the objectifying gaze on performance, motivation, body-related thoughts, and activation of the behavioral inhibition system. Because of previous experience with objectification, I expect that there will be adverse consequences for women, but not men.

Concluding Comments

Philosophers and feminist scholars have long considered the causes and consequences of objectification. The present theorizing and research was derived from an attempt to extend and elaborate prior work. To do so, social and cognitive psychological approaches were used. The present research brings objectification to the level of the individual and has the potential to provide an understanding of the causal relationship between difference and objectification (e.g., the gaze, memory for body parts, and trait imputation) for perceivers.

Complex social phenomena, like objectification, are best understood with multiple levels of analysis. Without feminist accounts of objectification, the structural power differences that may affect objectification may not be recognized. Without social psychological examinations of objectification, the interpersonal nature of objectification and the causal relationship between difference and objectification may go unexamined. Without cognitive psychology, the mechanisms that underlie objectification on an individual level would go unexamined. Each of these perspectives is necessary for a broader theory of objectification. Furthermore, each of these perspectives may benefit from inquiries at other levels of analysis.

As the title indicates, in her most recent book, MacKinnon (2006) asks *Are Women Human?* The studies reported here, along with findings from around the world, suggest that

objectifying and dehumanizing behavior, from the objectifying gaze and cat calls to rape and domestic abuse prevails. Women are not yet considered human, at least to the same degree that men are considered human. This work only touches the surface on the psychological processes and behaviors associated with the objectification of women. However, understanding the cognitive underpinnings of objectification is one important stride toward making women equal more than their body parts.

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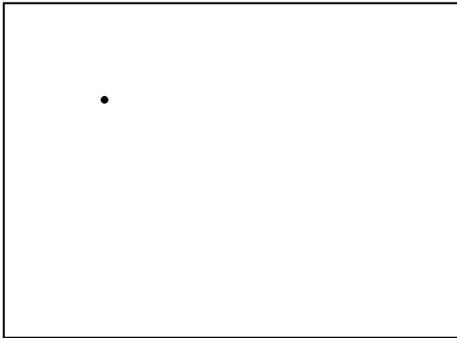
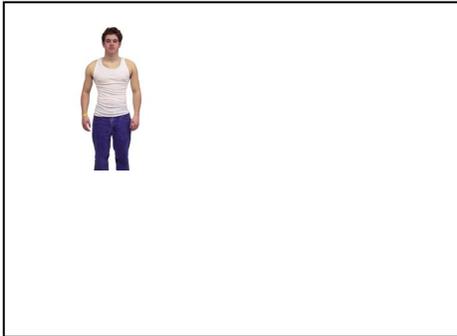
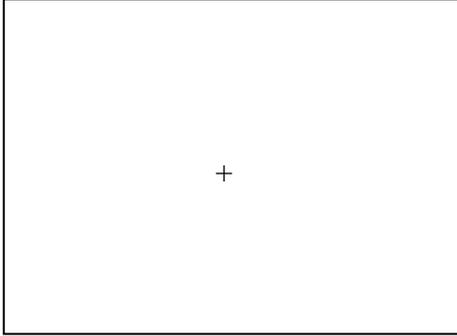
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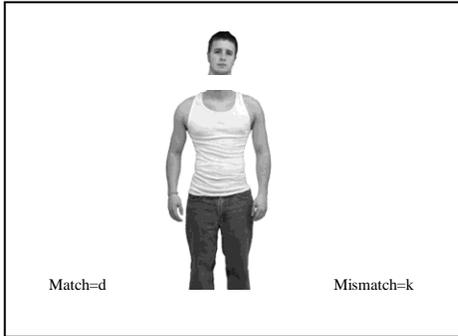
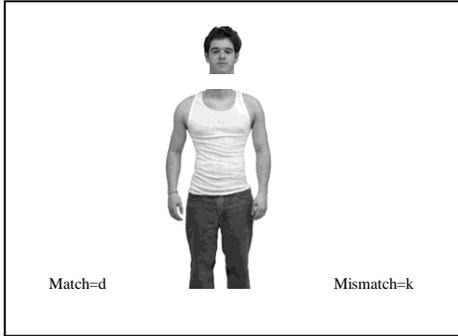
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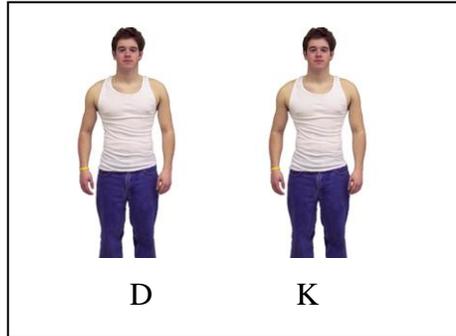
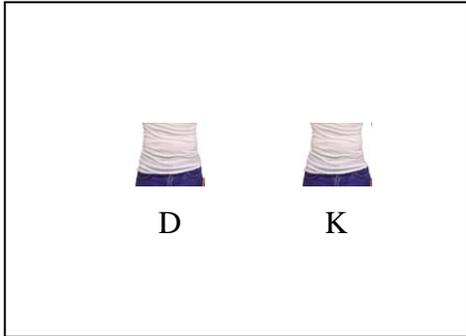
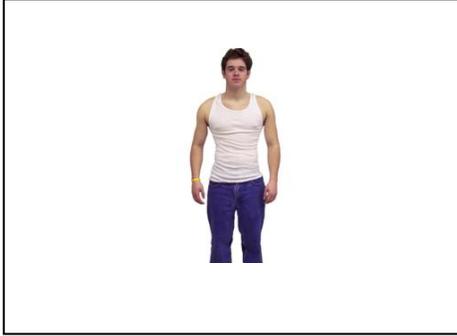
APPENDIX A: Sample Dot Probe Trial

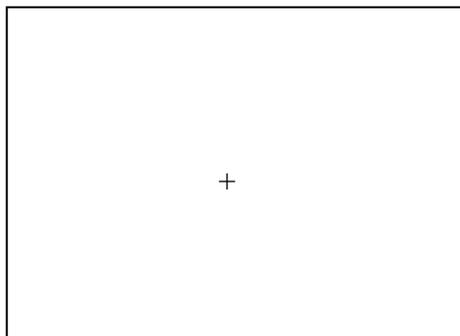


APPENDIX B: Sample Fungibility Trial



APPENDIX C: Sample Parts Recognition Trial or Whole Recognition Trial



APPENDIX D: Sample Lexical Decision Word Trial or Non-Word Trial

influential

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ENDNOTES

¹ Explanations for differences in person and object recognition have long been debated in the discipline of cognitive psychology. Broadly, the debate asked whether the recognition of persons (particularly faces) is unique or qualitatively different than the recognition of objects. Some have argued that differences in object recognition are found because of differences in expertise (humans are all assumed to be experts at person recognition). Thus, experts at certain objects (e.g., dog show judges) should perceive those objects (dogs) similarly to persons. This debate has recently been extended through cognitive neuroscience. Object and person recognition appear to be associated with different regions of the brain. Person recognition is associated with activity in the extrastriate body area of the right lateral occipitotemporal cortex, whereas object recognition is more generally associated with activity in the lateral occipital complex (Downing, Jiang, Shuman, & Kanwisher, 2003, but see also Gauthier & Tarr, 1997). Although important and critical to a full understanding of objectification, this debate is beyond the scope of this initial inquiry into the attention and memory consequences of objectification for the objectifier.

² The normative person may differ or be less relevant in other cultures (e.g., collectivist cultures). In my initial theorizing on objectification I focus attention on Western cultures. A full theory of objectification, however, must integrate norms across cultures. This is critical to my broader theoretical and empirical goals.

³ Stereotypes include information about the physical features, traits, attitudes, and behaviors that are associated with a particular group (Schneider, 2004). Thus, stereotypes about what group members look like can guide attention to physical features in the first place and stereotypes about how group members think, behave, and feel can provide information once someone is categorized.

⁴ Across studies, people use different language to represent this continuum. For example, Livingston and Brewer (2002) examine high prototypic and low prototypic Blacks. An examination of the stimulus materials, however, shows that the side of the continuum with exaggerated features is equated with the hyper-stereotypicality term that I use here.

⁵ Although reaction times were recorded when the dot appeared behind the waist, chest, arms, and legs, data analyses were only conducted on the waists (sex relevant) and arms (sex irrelevant) because the chests and legs were further distances away making different reactions times difficult to interpret.

⁶ Participant gender was not a significant factor in this analysis. This may have resulted from insufficient power to detect gender differences; the unequal number of male and female participants and smaller total number of participants may have led to may have made a participant gender effect difficult to detect.

⁷ To make stereotype activation maximally likely, after the person was presented, but before the letter string was presented, participants were asked to indicate whether they were viewing an animate or inanimate object. Macrae et al., (1997) found that deeper processing objectives (like indicating whether one is looking at an animate or inanimate object) led to stereotype activation, whereas superficial processing objectives (like indicating whether a dot appears on the person) did not.

⁸ The word “mechanical” may be considered more object-like than the other stereotypically masculine terms. I analyzed the data with and without this word in analyses and found similar results. Therefore, the results reported here include the word mechanical in the analyses.

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