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Power and Objectification: The Sexual Objectification of Women in Positions of Power

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Abstract

The aim of this thesis is to examine the relationship between women’s power in a professional setting and their sexual objectification. Across five experiments this thesis provides robust support for the hypothesis that women in high-power positions are sexually objectified more than women in positions of moderate-power. Five studies, utilizing a recognition and recall paradigm, found that participants consistently remembered more body items for high-power women compared to moderate-power women. This sexual objectification is consistent for high-power female stimuli of varying physical appearances, industries of employment, and race (Studies 1-3), occurs regardless of participant gender (Studies 1 and 4), or participants personal sense of power (studies 1-3), and is not present for high-power male targets (Study 4). In addition, we found that the sexual objectification of high-power women did not significantly influence subsequent judgements regarding the evaluation of leadership ability, personality, or the awarding of compensation. In sum, the finding of these studies points to a disturbing trend in which women in positions of leadership and power experience sexual objectification, this is of import as it highlights a possible added cost of breaking through the glass ceiling for women and highlights the need for more understanding as a means of mitigating this effect.
Lay Summary

This thesis establishes a clear connection between women in professional positions of power and their sexual objectification. We conduct five experiments that show a clear pattern, in which women in high-power positions are sexually objectified more than women in positions of moderate-power. Five studies, utilizing a memory task, found that participants consistently recognized more body items for high-power women relative to the number of items recognized for moderate-power women. The sexual objectification of high-power women appears consistent, even when the appearance of the woman, or the field in which she is employed is changed (studies 2 & 3). We also find that high-power Black women are also subjected to sexual objectification (study 3). In addition to this, both male (study 1a, 2, 3, & 4) and female participants (study 1b & 4) engage in the sexual objectification of high-power women. Participants personal sense of power, as measured in studies 1 – 3, does not play a role in the sexual objectification of high-power women. Finally, study 4 reveals that high-power men are not subjected to sexual objectification, and that the sexual objectification of high-power women did not influence participants evaluations of their friendliness, competence, leadership ability, or how much they should be paid. Overall, this research shows us that sexual objectification is an added challenge facing women in high-power professional positions, understanding this problem is key for finding ways to combat it in professional domains.
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Chapter 1

Overview of Thesis

This thesis aims to examine the relationship between sexual objectification and the perceived power of women in professional settings. We examine this phenomenon experimentally utilizing a novel recall and recognition paradigm to quantify and identify sexual objectification through body focus. Additionally, we include several moderators previously established as associated with sexual objectification, as a means of better understanding why women in power may be sexually objectified. We aim to explore the relationship between sexual objectification and professional power as experienced by women.

These introductory chapters will provide a foundation outlining the justification and theoretical rationale for the following four experimental chapters. We will cover in detail the existing theories and research that inform what we know concerning the problem of sexism, sexism as it applies to women in the workplace, sexual objectification, sexual objectification as it relates to power, and the derogation of women in positions of power. The third chapter introduces the experimental work covering the first three studies, this includes a stimuli pilot and two experimental studies. Chapter 3 also provides relevant background information for the design and implementation of the subsequent studies (Chapters 4-6) and establishes our initial findings wherein high-power women in professional positions experience more sexual objectification relative to women presented in positions of moderate-power, thus setting the trajectory for the subsequent four studies. Next, Chapters 4 - 6 include a total of five studies covering each iteration of replication of the first set of studies outlined and reported in Chapter 3, specifically, this will include three pilot studies testing all the stimuli used in subsequent studies, and three experimental
studies designed to replicate and expand the initial findings. The final chapter, Chapter 7, concludes this thesis through a discussion of the implications, possible applications, and future directions of the finding and of this work in sum. Chapter 7 will also discuss the contributions of this body of research and applications to what is already known concerning the relationship between women’s professional power and sexual objectification.

Introduction Overview

This introduction is divided into two main sections. First, we will look broadly at the issue of sexism as it applies to women, and the variety of ways in which it manifests itself in the workplace. The second portion of the introduction will examine the phenomenon of objectification, sexual objectification, self-objectification, the negative outcomes associated with sexual and self-objectification in women, and how sexual objectification relates to power. Finally, we will tie these two sections together in the context of the thesis’ theoretical rationale and justification, and the body of research based within this literature and based in these ideas. We will also discuss how the current research contributes to the body of research and provides a novel addition to what is currently known about power and sexual objectification.
Chapter 2 – Introduction

*Power and Objectification*

**Sexism, Women, and Power**

For decades, gender theorists have argued that women deserved to occupy positions of professional power, have debated when it would happen, and put forth theories on how it could be achieved (Loden, 1978; Jaffee, 1989; Ragins, 1998; Pettit & Hook, 2009; Blackmore, 2013; Chang, 2017; You, 2019; Boeri, Patacchini, & Peri, 2015). For women, it would appear that they have made definite strides towards accomplishing their goals, in 2020, the Wall Street Journal reported that there were more female CEOs than ever before (Fuhrmans, 2020), and in 2021 forty-one women were slated to become the CEOs of Fortune 500 companies (Fortune, 2021). At first glance, the presence of female CEOs, board members, and firm partners appear to be clear examples of growing equality. However, while debating when and how women will break through the glass ceiling, less attention was paid to the possible costs of doing so. These unanticipated costs that women in positions of power incur based on their violation of traditional gender norms and the status quo raise additional questions and deserve a thorough examination.

The reasons for this are multi-faceted and complex, however, sexism, as it manifests in professional settings plays a key role. The issue of sexism is a long-standing concern for women both historically and in contemporary society. Sexism simply refers to differential treatment based on gender. In nearly all areas of life women are subjected to treatment that sets out to “other” them in relation to men through the reinforcing of social hierarchies in which men and structures meant to hold up the patriarchy are the prototype. Like many “isms,” sexism is often linked to the endorsement of essentialist beliefs (Şhin & Soylu Yalcinkaya, 2020; Leyens, et
More specifically, gender essentialism refers to the belief that men and women have an underlying and immutable “essence” (Skewes, Fine, & Haslam, 2018; Bastian & Haslam, 2008). The idea that genders represent an immutable category governed by prevailing social ideas and hierarchies underpins the divisive nature of sexism, as it argues for innate differences which can then be deployed as rationales for differential treatment.

This perception of gender as a fixed category is accompanied by a set of performative rules, gender prescriptions - things one ought to do, and gender proscriptions - things one ought not do (Lott, 2011; Prentice & Carranza, 2003; Heilman, 2001; Brescoll, 2016; Fiske, 2016; Olid, 2012), that provide a template of behavior for men and women. Popular mid-century feminist and writer Simone de Beauvoir wrote extensively on the performative narrowness of what it is to be a woman physically, behaviorally, and mentally, positing that women are defined by their gender first while men enjoy more flexibility and far less judgment in the performance of gender (Second Sex, 1949). Research supports this, finding that women are perceived as highly essentialized and more homogenous as a group (Haslam, Rothschild, & Ernst, 2000; Lorenzi-Cioldi, 1993). This highlights two important points relevant to sexism, first that sexism finds its foundation in beliefs about what women are and where they should be in relation to the hierarchies in which they function, and second, that sexism for women is a quantifiable and persistent problem.

The issue of sexism and gender stereotypes is particularly salient when examining women’s experiences in the professional sector. Researchers have found that sexism and sexist attitudes are predictive of sexual harassment in a job interview scenario (Hitkan, Pryor, Hesson-McInnis, & Olson, 2009). Research
examining the effect of implicit stereotypes about women found that the higher a
male interviewer was in negative implicit stereotypes about women (associating
women with incompetence) the lower they rated the applicant’s performance, and
thus were less likely to recommend hiring her (Latu, Mast, & Stewart, 2015). In
addition to this, researchers have also found that women who interacted with a sexist
male in the context of an interview underperformed on subsequent cognitive tasks
(Koch, Konigorsi, & Sieverding, 2014), and negatively evaluated their own interview
performance after interviewing with a man who was high in implicit stereotypes about
women (Latu, Mast, & Stewart, 2015). These findings highlight the negative
outcomes for women who encounter sexism in a professional setting.

Navigating the professional world would seem particularly difficult for women
who aspire to gender non-conforming positions, such as managerial or leadership
roles. Women in this situation often face a double bind in which they are forced to
adopt traits that often function in opposition to one another, niceness, and warmth
along with competence and agency, and failure to comply often leads to bias,
negative appraisals, and financial loss (Lovoy, 2001; Heilman, 2001/2012). For
example, Eagly and Karau (2002) found that when women sought roles that were
incongruent with gender norms (i.e., positions of power and leadership) they
consistently met with prejudice that manifest itself in two ways, they were perceived
as being less qualified as potential leaders and evaluated more negatively when they
held leadership roles. Researchers also found that it was more difficult for women to
communicate ability and competence, while also being held to a higher standard of
performance when being evaluated for employment (Biernat & Kobrynowicz, 1997).
Furthermore, a meta-analysis looking at evaluations of men and women in
leadership found that men and women were evaluated differentially, this was based
on how their roles were defined in terms of gender norms; such that, women in masculine roles, such as military settings, were seen as less effective (Eagly, Karua, & Makhijani, 1995).

These results are indicative of gender backlash, wherein agentic women who apply for feminized jobs are penalized for not being nice enough (Rudman & Glick, 2002), illustrating that when women display a counter stereotypical trait (agency) they must temper it with one that conforms to gender norms (niceness). The gender backlash effect shows how the adoption of gender non-conforming traits by women negatively impacts perceptions of their performance and leadership ability (Heilman, 2012; Rudman & Glick, 1999; Rudman & Glick, 2001; Rudman Moss-Racusin, & Phelan, 2012). An example of this can be found when examining the perception of female political candidates, who were perceived as less sensitive, warm, and caring, which then leads to negative moral-emotional reactions and fewer votes (Okimoto & Brescoll, 2010).

These negative perceptions are in line with Role Congruity Theory (Eagly & Diekman, 2005; Eagly and Karau 2002), which posits that groups are positively or negatively appraised based on how they align with the roles assigned to their given group (Eagly & Diekman, 2005). More specifically, Eagly and Karau (2002) argue that women in positions of leadership experience prejudice based on their failure to conform to the expectations of their given group or perceived inconsistencies between their gender and the associated stereotypes. For example, women occupying powerful roles often experience negative outcomes and prejudice, in which they are negatively evaluated in terms of leadership ability, face negative attitudes, and find it more difficult to obtain leadership positions (Eagly & Karau, 2002; Heilman, 2001/2012). Furthermore, Butler and Geis (1990) found that even
though participants explicitly rated male and female leaders equally, their nonverbal behavior reflected more negative attitudes towards the women, aligning with what we know concerning Role Congruity Theory and the automatic cognitive processes informed my implicit beliefs and stereotypes (Banaji & Greenwald, 1995). In sum, women who aspire to counter stereotypical professional roles face both implicit and explicit bias often linked to negative real-world outcomes.

In addition to negative appraisals, there are also tangible costs regarding hiring that negatively impact women seeking powerful positions. Uhlmann and Cohen (2005) found that women applying for the historically male job of police chief were evaluated based on criteria constructed in favor of perpetuating gender norms. Uhlmann and Cohen (2005) argue that this is because when job descriptions are not clearly defined individuals often “fill in the gaps” with stereotypical information, meaning that women pursuing counter-normative roles are generally at a disadvantage. When evaluating job applicants, it seems that hiring criteria is shifted to suit the applicant whose gender is congruent with the position being sought. Findings show that agentic women pursuing managerial positions and who are presented as highly competent are evaluated poorly based on perceived social deficits even when those skills are not relevant to the position, thus justifying subsequent hiring discrimination (Phelan, Moss-Recuse, & Rudman, 2008). Overall, this research illustrates that employment disparities in high-power positions are not the result of women being less qualified, but rather, that the criteria is often shifted in favor of men who fit the stereotypical perception of the role.

In addition to difficulty securing powerful jobs, once hired men and women experience different pay outcomes and advancement opportunities (Heilman, 2001). For instance, while researchers found that starting salaries for men and women in
managerial roles did not differ significantly, over time a growing wage gap appeared that favored men (Olson & Frieze, 1991). This gap may be in part explained by research that examines the relationship between implicit stereotypes and salary allocation, wherein men, but not women, who were implicitly viewed as successful were rewarded with higher salaries, thus pointing to a clear disadvantage for women despite being perceived as equally skilled at their jobs (Latu et al., 2011). In terms of advancement and promotions, women in upper management are less likely to be promoted compared to men (Lyness & Judiesch, 1999). The differential rate of promotion may be linked to more rigorous standards of performance applied to women compared to men. Lyness and Heilman (2006) found that women who were promoted received higher performance ratings than men who were promoted to equivalent positions, and that those evaluations carried more weight in the evaluation of women but not men. Taken together, the research shows that while men and women may start on a level playing field their path diverges based on different standards of evaluation that place women at a marked disadvantage.

Overall, women are hobbled by workplace sexism and stereotypes which create additional challenges and barriers for them in terms of hiring decisions, career advancement, and compensation. Furthermore, when it comes to the pursuit of high-power roles the incongruity between sexist and stereotypical beliefs about women and their professional endeavors is often a roadblock to advancement.
Objectification, Women, and Power

The concept of objectification finds its roots in the writing of Immanuel Kant who warns against the moral detriment of treating others as objects or instruments to be used as a means to an end (Kant, 1785/2020). Based on this, objectification can be conceptualized as simply treating an individual as an object. Kant extends this to gender and sex when he discusses the merits of monogamous marriage as he argues non-martial relationships risk using individuals purely as bodily means to sexual ends, thus objectifying them and robbing them of their dignity and humanity (Kant, 1785/2020). Modern feminist theory has built on this idea arguing that a woman is robbed of humanity through being viewed as, and used as a sexual object (MacKinnon, 1993; Bartky, 1990; Dworkin, 1987). This experience of sexual objectification is posited as an unavoidable consequence of being a woman whose existence and person is regularly viewed as a commodity (MacKinnon, 1993).

Philosophical formulations of objectification were expanded by Nussbaum (1995) via breaking objectification into seven distinct attributes:

1. Instrumentality: The treating of the objectified as an instrument or tool to realize the objectifiers purpose.
2. Denial of autonomy: The objectified is treated as non-autonomous or lacking self-determination.
3. Inertness: The objectified is seen not having agency or action.
4. Fungibility: The objectified is interchangeable with other objects.
5. Violability: The objectified is something that can be violated, lacking boundaries, and integrity.
6. Ownership: The objectified is treated as a commodity something that can be owned, bought, and sold to suit the purposes of the objectifier.
7. *Denial of Subjectivity:* The objectified is treated as something that lacks subjective experience, and/or whose subjective experience can be easily ignored by the objectifier.

These elements of objectification are meant to outline the experience of the objectified while illuminating the motivations and attitude of the objectifier during the process of objectification.

Within psychology, the predominant framework for objectification was provided by Fredrickson and Roberts (1997). In their seminal paper, Fredrickson and Roberts (1997) aim to understand women’s lived experience through better understanding the socio-cultural context in which objectification occurs. Sexual objectification is defined as seeing or treating an individual as a sexual object and reducing them to the instrumentality of their body or body parts (Fredrickson & Roberts, 1997) in other words a woman’s body and body parts are separated from her person. Fredrickson and Roberts (1997) argue that women and girls who live in objectifying environments such as most modern societies are commonly exposed to the “objectifying gaze.” The objectifying gaze plays out in several ways, such as men looking at women and their bodies, or evaluating and commenting on women’s bodies (Hall, 1984; Mulvey, 1975/1989, Monk-Turner, et al., 2008). Additionally, the objectifying gaze is almost omnipresent in visual media. Women portrayed in the media are often the object and men the actors, presented in highly sexualized motifs or simply as bodies, or parts of bodies (Holmstrom, 2004; Furnham & Mak, 1999).

For example, Archer, Iritani, Kimes, and Barrios (1983) found that images of women focus on their bodies and body parts while images of men focus more on their faces. Hall and Crum (1994) found that when comparing commercials with both males and females shot for shot women’s bodies appeared nearly twice as often, and more of
those shots were focused on sexualized parts of the body. The unifying theme being objectification through instrumentality, which occurs through focus on a woman's body and body parts.

Increased attention to women's bodies through sexual objectification has serious implications for how the objectified is perceived by the objectifier. Participants in an appearance focus condition, where they were instructed explicitly to focus on the target's appearance as a proxy for objectification, perceived the female but not the male target as being less competent, warm, and moral (Heflick, Goldenberg, Cooper, & Puvia, 2010). Schwarz and Kurz, (1989) found that participants attributed more intelligence and agentic traits to photos of faces compared to photos of bodies. Researchers also found that objectified individuals are attributed lower moral status, are thought to experience less pain, more easily associated with animals and objects, and are seen as less competent. Overall, the lack of attributing human traits creates a troubling combination, tantamount to denial of what it means to be a person (Loughnan, et al., 2010; Schwarz & Kurz, 1989; Heflick & Goldenberg, 2014; Vaes, Paladino, & Puvia, 2011).

In addition to altering how one is perceived, objectification also alters how women are treated. Sexual objectification has been linked to sexual assault. This is illustrated by research showing that men who engage in more sexual objectification report higher rape proclivity (Rudman & Mescher, 2012), and an increased tendency to sexually harass (Bevens & Loughnan, 2019). Research has also found, that exposing participants to a video meant to sensitize individuals to sexual objectification led to lower levels of hostile sexism, which is directly linked to sexual harassment (Guizzo & Cadinu, 2021). This is of particular interest given the already widespread nature of sexual harassment and the negative outcomes associated with
it, which align strongly with the negative outcomes of sexual objectification (Maass, Cadinu, Guarnieri, & Grasselli, 2003). In addition to sexual harassment, sexually objectified women who are raped are more likely to endure victim blaming (Loughnan, Pina, Vasquez, & Puvia, 2013), while the perpetrators are seen as less culpable (Bernard et al., 2015). Sexually objectified women are also more likely to be the targets of non-sexual physical aggression (Vasquez et al., 2017). Taken together, sexual objectification undermines perceptions of women’s humanity, facilitating and justifying mistreatment. Beyond this, sexual objectification affects how women view and treat themselves, through self-objectification (Koval, et al., 2019; Frederick & Roberts, 1997; Fredrickson et al., 1998).

Self-objectification is the process of observing one’s body through the lens of sexual objectification, or the internalization of the objectifying gaze. The experience of objectification leads women to internalize the observer’s perspective leading to self-objectification (Koval et al., 2019). Women exposed to objectification often react by becoming their own observers, reenacting the objectifying gaze as a means of self-monitoring and self-evaluation wherein they view themselves first as objects in terms of physical appraisals. This act of self-objectification is detrimental to a woman’s well-being and is linked to disordered eating (Muehlenkamp & Saris-Baglama, 2002), body dissatisfaction, appearance anxiety, body shame (Calogero, Davis, & Thompson, 2005), and depressive symptoms (Tiggeman & Williams, 2012). Thus, for women the process of sexual objectification constitutes a double-barreled attack: one experienced externally at the hands of others, and one experienced internally at the hands of the self. Given the effects of both sexual objectification and the consequent self-objectification, it is important to interrogate the conditions in which sexual objectification is fostered.
We will explore the role power plays in both objectification and sexual objectification. Power is granted in society by the stratification of social hierarchies, through which individuals and groups are ranked based on their perceived value. This happens formally and informally (Blau & Scott, 1962). Formal hierarchies grant power to those at the top and tend to be explicit and traversable, such as the clearly defined power structures within companies and organizations. Conversely, informal hierarchies occur spontaneously between social groups, are generally implicit, and movement within these hierarchies tends to be limited if not impossible, as it would mean shifting from one social group to another. For example, gender is an informal hierarchy, in which men implicitly hold more status (Blau & Scott, 1962; Lorenzi-Cioldi, Eagly, & Stewart, 1995; Stewart, Vassar, Sanchez, & David, 2000; Haslam, Rothschild, & Ernst, 2000).

The hierarchical structure of gender is often taken for granted, and while it may be dynamic in nature, the main construction of this hierarchy in which men are higher in status than women appear to be a dependable phenomenon (Lorenzi-Cioldi, Eagly, & Stewart, 1995; Stewart, Vassar, Sanchez, & David, 2000). Oftentimes, informal, and formal hierarchies can operate in tandem; for example, when members of a dominant social group (men) occupy positions of organizational power. It could be argued that the informal hierarchy that grants status and power to men over women in organizational settings is then directly usurped when women obtain high levels of professional power, possibly leading to the negative appraisals of women in power (Rudman & Glick, 1999; Rudman & Glick, 2001; Rudman Moss-Racusin, & Phelan, 2012).

When attempting to understand the underlying reason for the challenges faced by women, it is important to examine the psychological elements that reinforce
and perpetuate power imbalances between groups. In this case, the hierarchy of men and women and the social elements that help to maintain it. System justification theory (SJT) is one such mechanism. SJT argues that people hold system-justifying beliefs that work to maintain the status-quo (Jost & Banaji, 1994; Jost, Banaji, & Nosek, 2004). The status-quo as it applies to gender relations is that men occupy positions of power and women occupy a lower and subjugate position beneath them. To maintain this system that favors men, individuals may adopt negative perceptions and stereotypes as a means of justifying the current power dynamic (Jost & Banaji, 1994). Research has linked system justification and the endorsement of sexist beliefs about women, using these beliefs as a justification for treating women differently and unfairly (Connelly & Heesacker, 2012).

Related to SJT, social dominance theory (SDT) offers some insight into individuals' motives for maintaining the current hierarchies and inequality (Sidanius & Pratto, 1999). Individuals in positions of dominance, such as men, are motivated to police group boundaries ensuring that their in-group remains dominant (Dambrum, Duarte, & Guimond, 2004; Foels & Pappas, 2004). Taken together, both social dominance and system justification, provide us with insight into the underlying psychological mechanisms and motivations that may play a role in the negative appraisal of women, the manifestation of sexism, and the current structural, and social inequalities faced by women.

Another element that should be considered when attempting to understand the psychological processes associated with gender inequalities and sexism is threat. Intergroup threat theory (ITT), attempts to illuminate elements of perceived threat that contribute to intergroup bias and prejudice (Stephens, Ybarra, & Rios, 2016). Research has shown that when highly identified members of high-status
groups feel threatened their support for inequality between groups increases (Morrison, Fast, & Ybarra, 2009). It is then reasonable to assume that men may seek to perpetuate group inequality if they feel threatened by women usurping the hierarchy by obtaining roles historically reserved for men. Different forms of threat may play a role in this, realistic threat wherein a person feels their general well-being is threatened, for example through job loss or resource allocation (Morrison & Ybarra, 2008). In addition to this, men who feel their prototypicality in a specific domain is under threat (prototypicality threat) have been shown to oppose measures meant to increase gender equality in STEM fields (Danbold & Huo, 2017).

Power is a well-documented factor contributing to objectification. This is especially evident regarding instrumentality in the workplace, where power dynamics are often mis-matched leading individuals to feel as though they possess less agency, free-will, human mental states, and are objectified by their superiors (Andrighetto, Baldissarri, & Volpato, 2016; Baldissarri, Andrighetto, & Volpato, 2014; Baldissarri, Valtorta, Andrighetto, & Volpato, 2017; Baldissarri, et al., 2019). Within a professional context, individuals in positions of power tend to objectify, devalue, de-individuate, and emotionally misinterpret individuals with less power and status (Galinsky, Magee, Inesi, & Gruenfeld, 2006). Lammers and Stapel (2010) found that people in power were more likely to dehumanize individuals minimizing their pain and suffering when they are members of an out-group. People in power have also been found to have increased self-focus, thus contributing to the objectification of others through viewing others through the lens of instrumentality, or as a tool to be used to reach one’s goals (Lammers, et al., 2011; Gruenfeld, Magee, Inesi, & Galinsky, 2008). Civile and Obhi (2015) found that power, more than gender, drove sexual objectification, such that high-power male and female participants objectified
targets more than low-power participants. Individuals primed with power tend to process sexualized people as objects, perceiving women as collections of body parts rather than holistically as people (Civile, Ragagobal, & Obhi, 2016). In short, convergent, and independent lines of evidence suggest that people in power tend to objectify subordinates and people with less power than themselves.

The prior work discussed has focused on objectification directed at the bottom of the hierarchy. However, that does not mean that women occupying positions at the top of the hierarchy are immune to negative social outcomes. In popular culture, it is easy to find examples of women who after reaching positions of power in both politics and business have endured brutal scrutiny of their bodies, sexual objectification. Former CEO of Yahoo!, Marissa Mayer was featured in a fiercely debated Vogue magazine article where her “sexiness” was praised along with her professional achievements and business acumen (Weisberg, 2013). Vogue discussed Mayer’s fashion choices with equal gravity as her plans to rebuild and rebrand the Silicon Valley tech giant while the accompanying photo featured her sprawled on a sofa (Weisberg, 2013). In 2014, a Fox News contributor suggested that Michelle Obama should lose weight, while discussing her plan to tackle America’s obesity crisis (CNN, 2014). The DailyMail, The Sun, The Huffington Post, and The Telegraph have all written stories discussing the footwear of then Prime Minister Theresa May (Rainey, 2016; Tolhurst, 2016; Allen, 2017; Beaumont, et al., 2015). More recently, Jill Biden’s tights were called ‘trashy as heck’ since they vaguely resembled fishnets (Allen, 2021). Former first lady, Melania Trump, endured the ‘fake Melania’ conspiracy claiming she had been replaced by a body double, the assumption that she is physically interchangeable is a clear example of fungibility, and led to the frenzied scrutiny of her physique (Nussbaum, 1995; Massie, 2020).
Combined, these examples illustrate the disproportionate focus placed on the bodies of women in positions of power. We suggest a disturbing trend whereby powerful women are subjected to heightened body monitoring and scrutiny. In short, powerful women may be the targets of sexual objectification.

Taken together we see that status, power, and one’s position within a social hierarchy can affect how one is both perceived and how one perceives others. We also see that when women who occupy counter-stereotypical roles (i.e., women who challenge the gender hierarchy within positions of power) they suffer negative consequences, such as negative performance evaluations and decreases in perception of warmth (Rudman & Glick, 1999). However, the literature has yet to examine how women with power operating within the accepted hierarchy are perceived in terms of sexual objectification. It is within this context that this thesis situates its body of research in hopes of examining an additional form of derogation towards women who achieve high status and power: sexual objectification. This thesis and the following empirical chapters will explore the interaction between sexual objectification and power at the high-end of the power hierarchy for women.

While the connection between self-objectification and sexual objectification is clear the current research as presented in this thesis does not include it as a variable. The reasons for this are two-fold: first it is beyond the scope of the thesis which is concerned with establishing if women in power are sexually objectified; second, as self-objectification has not been robustly established as a precursor to other objectification its inclusion would be exploratory. With women occupying more positions of power within the workplace, and the well-documented challenges faced by these women, it is important to understand any additional negative consequences which may accompany women’s increased status. It is the overarching aim of this
thesis to explore whether women occupying high-power positions are subjected to higher levels of sexual objectification.
Chapter 3 – Studies 1a and 1b:  

*Power and Objectification*

**Introduction**

Study 1 investigates the impact of power on the objectification of women. Specifically, we preregistered competing hypotheses ([https://osf.io/pkr8w/](https://osf.io/pkr8w/)) exploring whether high-power women would be sexually objectified more than moderate-power women, or if power would be a protective factor shielding them from sexual objectification. These predictions are based on previous research outlining the various forms of derogation faced by women in positions of power, mainly, negative appraisals based on the violating of norms and gender prescriptions (Rudman & Glick, 1999; Rudman & Glick, 2001; Rudman Moss-Racusin, & Phelan, 2012; Okimoto & Brescoll, 2010). Additionally, power as it has been studied in previous sexual objectification literature shows that individuals high in power objectify those in subjugate positions (see: Civille & Ohbi, 2015; Civille & Ohbi, 2016; Gruenfeld et al, 2008). This could point to a negative linear relationship between power and sexual objectification, where increases in power are accompanied by decreases in sexual objectification. Based on these findings, it is possible that as one’s power increases it may serve to protect them from objectification, however, this has not been empirically explored.

In addition to the negative appraisals experienced by women in positions of power, popular culture provides us with anecdotal evidence that women in power experience increased focus on their body (see: Allen, 2021; Allen, 2017; Beaumont, et
al., 2015; Rainey, 2016; Tolhurst, 2016; Weisberg, 2013), this phenomenon has not been explored experimentally. However, as previously mentioned, power and objectification research has shown that objectification and power are related through the objectification of low-power targets by individuals in positions of power (Civille & Ohbi, 2015; Civille & Ohbi, 2016; Gruenfeld et al, 2008). However, these findings leave part of the social hierarchy unexplored, and thus there is no empirical evidence for the sexual objectification of high-power targets. Taken together, the current research aims to explore the sexual objectification as it applies to women at the top of the professional hierarchy.

To test this, we adopted the classic objectification framework outlined by Fredrickson and Roberts (1997), in which a key component of sexual objectification is the objectifying gaze, wherein a woman’s body and its parts are the primary focus of the observer (see also: Gervais, Holland, & Dodd 2013; Bernard et.al., 2015). We use both a recall and a recognition task to measure body focus and directly compare the number of body items recalled or recognized correctly for high and moderate-power women. The current methodology builds on previous research that has used body part recognition as a measure of sexual objectification (Gervais, et al., 2012), along with similar study designs that utilize trait recall paradigms to test the relationship between status and memory for individuating traits (Stewart & Vassar, 2000; Lorenzi-Cioldi, Eagly, & Stewart, 1995). Personal, professional, warmth, and competence items for each stimulus were also included to provide additional items for recognition and recall. Specifically, competence and warmth items were included in the recognition task based on previous literature in which high-power targets are seen as more competent
but less warm (Phelan, Moss-Racusin, & Rudman, 2008), however, we did not have any specific hypotheses for these items.

In addition, participants also completed measures of social and chronic power. These measures were included as possible moderators, given that one's sense of power contributes to the objectification of others (Civile & Obhi, 2016; Gruenfield, Inesi, Magee, & Galinsky, 2008). Power as a moderating variable in the sexual objectification of others is well established (Civile & Obhi, 2016; Gruenfield, Inesi, Magee, & Galinsky, 2008). However, previous research focused on the participant power in relation to low-power or subjugate targets, and not at participant power as it relates to the sexual objectification of moderate or high-power targets. To fit the current work into the framework of sexual objectification and power, and to contribute to the body of knowledge already established, the current set of studies focuses on women who until now have not been examined in relation to sexual objectification, high and moderate-power women. The purpose as outlined in the introduction as the overarching aim of the thesis, was to establish whether women in positions of power are subjected to sexual objectification and while mediating variables would certainly provide interesting and informative data, exploring mediators was beyond the scope of the current research and thesis.

Both studies 1a and 1b were run using a within-subject design. The within subject design was chosen for several reasons. First, the nature of a within subject design allows us to minimize individual differences, this is of particular importance when looking to minimize the role of individual differences especially when the dependent variable of interest is reliant on memory for which individual differences are salient. In
addition to this, the current study hoped to increase ecological validity through the comparative nature of the task, viewing both high and moderate-power stimuli aligns more closely with real-world experiences, in which people interact with individuals of varying status.

**Method**

The preregistration, and materials for both studies can be found online ([https://osf.io/pkr8w/](https://osf.io/pkr8w)).

Participants

Sample from 1a

Two hundred and ninety-seven White men living in the United Kingdom participated in the study for £1.20 ($1.64). Participants were collected using the online platform Prolific Academic, participants all had an approval rating of 95% or higher, and participants with missing data \((n = 14)\) were excluded from our final sample \((n = 283)\) men aged between 18 – 75 \((M_{age} = 38.41, SD = 12.79)\). A power analysis conducted using Webpower in R (Zhang et al., 2018) assuming a moderate effect size \((f = .25)\) and an alpha of .05, indicates that a sample of \(n = 280\) gives us an observed power of .94 to detect a significant interaction in a repeated measures ANOVA.

Sample from 1b

Two hundred and seventy-five White women living in the United Kingdom participated in the study for £1.20 ($1.64). Participants were collected using the online platform Prolific Academic, participants all had an approval rating of 95% or higher, and participants with missing data \((n = 14)\) were excluded from our final sample \((n = 283)\) women aged between 18 – 75 \((M_{age} = 38.41, SD = 12.79)\). A power analysis conducted using Webpower in R (Zhang et al., 2018) assuming a moderate effect size \((f = .25)\) and an alpha of .05, indicates that a sample of \(n = 280\) gives us an observed power of .94 to detect a significant interaction in a repeated measures ANOVA.

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1 The hypotheses for studies 1a and 1b were both preregistered with OSF. The hypotheses for studies 1a, and 1b were competing and explored whether high-power women would be sexually objectified more than moderate-power women, or if power would be a protective factor shielding them from sexual objectification. Analysis plans, and sample sizes were all preregistered as well. The language we use to discuss this in the preregistration refers to high-power and low-power women, we have since adjusted this to high-power and moderate-power to more accurately describe the experimental conditions.
platform Prolific Academic, participants all had an approval rating of 95% or higher, and participants with missing data \((n = 30)\) were excluded from our final sample was \((n = 257)\) women aged between 18 – 74 \((M_{\text{age}} = 39.27, \text{SD} = 12.78)\). A power analysis was conducted using Webpower in R (Zhang et al., 2018) assuming a moderate effect size \((f = .25)\) and an alpha of .05, a sample of \(n = 257\) gives us an observed power of .91 to detect a significant interaction in a repeated measures ANOVA.

**Materials**

**Stimuli pilot** participants \((n = 29)\) were asked to rate the power of each woman using a sliding scale \((1-100)\). As expected, the high-power woman was reported as having more power \((M = 79.45)\) relative to the moderate-power woman \((M = 56.76)\), \(t(28) = 8.35, p < .001, \text{Cohen's } d = 1.65\). It is worth noting that the moderate-power profile was near the scale midpoint \((50)\) and thus not "low power". Participants were also asked to recall the woman’s job title using a multiple-choice question, the prestige of her university, and whether she held a leadership role. Most participants correctly identified the woman’s occupation \((91.4\%)\), university prestige \((72.4\%)\), and leadership \((77.6\%)\).

**Images**

An initial ten full-body, forward facing, and isolated images selected based on professional attire, attractiveness, and age were obtained and licensed from Adobe Stock Image. These ten images were then piloted for age, attractiveness, and likeability \((N = 32)\). Attractiveness and likeability were rated on a 10-point sliding scale \((1 = \text{“Least likeable”}, \text{and } 10 = \text{“Most likeable”})\). Perceived age was assessed using a sliding scale of 0 - 100. Of these ten images, two were selected based on similarity in appearance and how well they equated across the three dimensions being tested (age,
attractiveness, likeability). The final two images selected were compared using a 3-characteristic: age, attractiveness, likeability) x 2 (image) repeated-measures ANOVA, which showed a significant interaction, $F(2, 30) = 10.04, p < .001$. Post-hoc pairwise comparisons with Bonferroni corrections examined differences across the three dimensions. Ratings of attractiveness for stimulus 1 ($M = 6.25, SD = 1.81$) did not differ significantly from stimulus 2 ($M = 6.13, SD = 2.10, F(1,31) = .031, p = .86$), nor did likeability (stimulus 1 $M = 6.19, SD = 1.80$, stimulus 2, $M = 6.22, SD = 2.01, F(1, 31) = .010, p = .92$). However, stimulus 1 ($M = 35.16, SD = 7.58$) did differ significantly from stimulus 2 ($M = 28.33, SD = 4.35, F(1,31) = 23.59, p < .001$) in perceived age. The significant difference in perceived age was addressed by counterbalancing the two stimuli across the professional profiles, meaning that each stimuli image was paired with both the high and moderate-power profiles, ensuring that any stimuli specific differences were evenly distributed across both conditions.
Profiles

Participants each viewed two profiles. Each profile contained four elements: a full-body color image; professional information which included job title, schooling, and qualifications; personal information which included interests and hobbies; three brief testimonials pertaining to work performance. Each of the profiles included three unique warmth (e.g., kind, friendly), competence (e.g., organized, determined), professional (e.g., university attended, degree earned), and personal items (e.g., enjoys travel, volunteers,).

Power

Power was manipulated by employing different information in the profiles. The high-power woman was described as having attended prestigious universities (Oxford University, London School of Economics), whereas the moderate-power woman attended a less prestigious institution (Cumbria College). In addition, the high-power woman was both the head of her department and a partner in the law firm, whereas the moderate-power woman held no leadership roles. We piloted both profiles to ensure that power was successfully manipulated: job title was remembered, the prestige of the university recognized, and the women’s leadership roles understood. In addition to this, two images were selected after being piloted to equate them for attractiveness and likeability. They were participant-wise counter-balanced across power conditions to counter idiosyncratic stimulus effects not equated in pilot testing.
Participant Social and Chronic Power

Social power was measured using the Personal Sense of Power Scale (Anderson, John, & Keltner, 2012). This scale consisted of eight items, including: “If I want to, I get to make the decisions”. The items were measured on a 7-point Likert Scale (1= strongly agree, 7= strongly disagree). In addition to this, three questions meant to measure an individual’s sense of chronic power were used, measured on a 7-point Likert Scale (1= strongly agree, 7= strongly disagree; “In my day-to-day life I tend to feel...Strong/Powerful/In-control”). Given the strong reliability of the scale ($\alpha = .89 - .91$), we created a mean score for each participant.

Procedure

Both studies 1a and 1b were conducted using a fully within-subjects design. In both studies, the participants began by completing a 12-question measure of personal and social power. Participants were then randomly assigned to one of four blocks which fully counter-balanced image and power information. Participants viewed each of the two professional profiles presented with a brief description of the woman’s job which acted as an additional manipulation at the moderate (“You are going to be shown the professional profile of a paralegal at a prominent law firm”) or a high level of power (“You are going to be shown the professional profile of a successful lawyer, partner, and department manager at a prominent law firm”). Participants viewed one profile at a time presented in random order.

Immediately following each profile, the participant completed two memory tasks. In the first memory task the participants answered three open-ended questions in which
they recalled as many personal, professional, and physical items they could (i.e., “In the area below please write in personal/professional/physical details you remember about the profile.”). Following this, participants completed a recognition memory task where they were presented with 30 warmth, competence, personal, professional, and physical traits. Of these traits, 20 (four per category) were present in the profile (targets) and 10 (two per category) were not present (foils). The participants responded to each listed trait as either “True, was in the profile”, “False, was not in the profile”, or “Unsure if it was in the profile or not”. After completing the second memory task, participants were asked to estimate the age of the woman in the profile and completed a brief demographics questionnaire.

Open-ended responses

The three open-ended recall responses for studies 1a and 1b were coded by two research assistants. The coders read each response and created a tally of correct and incorrect responses. The correct responses were independently summed for professional, personal, and physical items that were recalled by each participant. All coding was done independently, and an acceptable Cohen’s kappa (> .75) established before the final tallies were reconciled by both coders.

Results Study 1a

Participants completed a recognition task, in which they responded either true, false, or unsure to a list of traits which were both present and not present in the stimuli profiles. We summed participants’ correct responses, where a correct response was either stating that a trait was present when it indeed was or stating that a trait was absent when it indeed was. Each of the correct responses, for both the true and false
items were analyzed using a 2 (power manipulation: high/moderate) x 5 (trait type: competence/warmth/professional/personal/body) within-subjects ANCOVA, using self-reported power scores were used as a covariate. We found a significant main effect of trait type $F(4, 276) = 151.79$, $p < .001$, $\eta^2_p = .69$, and a non-significant main effect of power $F(1, 279) = 2.87$, $p = .091$, $\eta^2_p = .01$. As predicted, there was a significant interaction between trait type and power $F(4, 276) = 22.87$, $p < .001$, $\eta^2_p = .25$. Simple effects analysis with Bonferroni corrections found that, as predicted, participants recognized more body items after viewing the high-power profile ($M = 5.06$, $SE = .068$) compared to the moderate-power profile ($M = 4.59$, $SE = .072$), $F(1, 279) = 31.81$, $p < .001$, $\eta^2_p = .10$. A Bayes factor t-test was also conducted to test the differences between body items recognized for high-power women and moderate-power women the results of which point to decisive evidence in favor of the alternative hypothesis, specifically that more body items were recalled for high-power women than moderate-power ($BF_{10} = 402853.323$). In addition, participants recognized more competence items for the high-power woman ($M = 3.19$, $SE = .08$) than the moderate-power woman ($M = 2.75$, $SE = .09$, $F(1, 279) = 21.43$, $p < .001$. Conversely, participants recognized significantly more warmth ($M = 3.27$, $SE = .09$) and personal items ($M = 4.21$, $SE = .09$) for the moderate-power woman than for the high-power woman ($M_{warmth} = 2.88$, $SE = .10$; $M_{personal} = 3.92$, $SE = .07$, all $p$s < .001). There was no significant difference in the recognition of professional traits (see Table 1). Self-reported power as a covariate did not interact with this effect, $F < 1$.

\footnote{An analysis was conducted in which only correct “true” responses were used as well, the results of that analysis showed the same pattern of results.}
The number of correct items from the open-ended recall task were analyzed with a 2(power manipulation; high/moderate) x 3(response prompt; professional/personal/physical) within-subjects ANOVA. There was a significant main effect of trait type $F(2, 283) = 16.61, p < .001, \eta_p^2 = .06$, and a non-significant main effect of power $F(1, 284) = 2.28, p = .132, \eta_p^2 = .01$. As expected and replicating the results of the recognition task, we found a significant interaction between trait type and power, $F(2, 283) = 28.81, p < .001, \eta_p^2 = .09$. Simple effects analysis with Bonferroni corrections revealed that participants recalled significantly more body items after viewing the high-power profile ($M = 3.21, SD = 1.73$) compared to the profile with moderate-power ($M = 2.99, SD = 1.75$), $F(1, 284) = 5.25, p = .02, \eta_p^2 = .02$, and more professional items for the high-power woman ($M = 2.82, SD = 1.64$) than the moderate-power woman ($M = 2.33, SD = 1.19; F(1, 284) = 32.27, p < .001, \eta_p^2 = .10$). By contrast, participants recalled significantly more personal items ($M = 3.10, SD = 1.64$) for the moderate-power woman than for the high-power woman ($M = 2.63, SD = 1.40; F(1, 284) = 22.90, p < .001, \eta_p^2 = .08$)
Table 1
Study 1a Recognition Task

<table>
<thead>
<tr>
<th>Trait</th>
<th>M HP</th>
<th>M MP</th>
<th>SE</th>
<th>F</th>
<th>p</th>
<th>η_p²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body</td>
<td>5.06</td>
<td>4.59</td>
<td>.08</td>
<td>31.81**</td>
<td>&lt; .001</td>
<td>.10</td>
</tr>
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<td>2.88</td>
<td>3.27</td>
<td>.09</td>
<td>17.24**</td>
<td>&lt; .001</td>
<td>.06</td>
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<tr>
<td>Competence</td>
<td>3.19</td>
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<td>.10</td>
<td>21.43**</td>
<td>&lt; .001</td>
<td>.07</td>
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<td>10.70**</td>
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<td>4.42</td>
<td>.09</td>
<td>2.11</td>
<td>.15</td>
<td>.01</td>
</tr>
</tbody>
</table>

HP = High-power stimuli, MP = Moderate-power stimuli. ** indicates significance at an alpha of .001, * indicates significance at an alpha of .05.

Table 2
Study 1a Open-Ended Recall Task

<table>
<thead>
<tr>
<th>Trait</th>
<th>M HP</th>
<th>M MP</th>
<th>SE</th>
<th>F</th>
<th>p</th>
<th>η_p²</th>
</tr>
</thead>
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<td>3.09</td>
<td>.10</td>
<td>22.90**</td>
<td>&lt; .001</td>
<td>.08</td>
</tr>
<tr>
<td>Professional</td>
<td>2.82</td>
<td>2.33</td>
<td>.09</td>
<td>32.27**</td>
<td>&lt; .001</td>
<td>.10</td>
</tr>
</tbody>
</table>

High-power stimuli, MP = Moderate-power stimuli. ** indicates significance at an alpha of .001, * indicates significance at an alpha of .05.

Additional Analyses

We also conducted a Bayesian repeated measures ANCOVA on the data, with power (P) and trait (T) as within subjects factors, and self-reported power (SRP) as a covariate. The including the covariate of participants self-reported power compared to other models was less than 1 ($BF_{10} = 0.19$) and added no significant explanatory value ($BF_M = 1.72$) the ANOVA was preferred ($BF_M = 47.18$). Based on this a secondary analysis was conducted without the covariate (see Table 3), the power by trait interaction was again the best model ($BF_M = 5.959e +9$). The analysis of effects (Table 4) shows that there is strong evidence for the inclusion of power ($BF_{incl} = 1.151e +9$), trait ($BF_{incl} = \infty$), and the interaction ($BF_{incl} = 5.959e +9$) in the model. In sum, the Bayes analysis allows us to draw more concrete conclusion in regard to participants self-
reported power and the phenomenon of interest. Specifically, given the data, participant power should not be included in the model as it is comparable to the null model, this provided unequivocal support for the findings reported in the previous significance test.
Table 3
Model Comparison Study 1a

| Models          | P(M)   | P(M|data)  | BF  | BF 10  | error % |
|-----------------|--------|-----------|-----|--------|---------|
| Null model      | 0.200  | 9.879e-202| 3.952e-201| 1.000       |
| P + T + P ✻ T   | 0.200  | 1.000     | 5.959e+9   | 1.012e+201| 2.371 |
| T               | 0.200  | 5.791e-10 | 2.316e-9   | 5.862e+191| 0.761  |
| P + T           | 0.200  | 9.215e-11 | 3.686e-10  | 9.328e+190| 1.392  |
| P               | 0.200  | 1.037e-202| 4.146e-202| 0.105   | 0.892  |

Note. All models include subject P = Power, T = Trait

Table 4
Analysis of Effects Study 1a

| Effects | P(incl) | P(excl) | P(incl|data) | P(excl|data) | BF  incl |
|---------|---------|---------|---------|---------|---------|
| P       | 0.600   | 0.400   | 1.000   | 5.791e-10 | 1.151e+9 |
| T       | 0.600   | 0.400   | 1.000   | 0.000    | ∞       |
| P ✻ T   | 0.200   | 0.800   | 1.000   | 6.712e-10 | 5.959e+9 |

P = Power, T = Trait

Results Study 1b

The results of study 1b largely replicated those of the previous study. The results of the recognition task were analyzed using a 2 (power manipulation: high/mModerate) x 5 (trait type: competence/warmth/professional/personal/body) within-subjects ANCOVA. We found a significant main effect of trait type $F(4, 253) = 193.88, p < .001, \eta^2_p = .75$, and a non-significant main effect of power $F(1, 256) = .72, p = .40, \eta^2_p = .003$. As predicted, there was a significant interaction between trait type and power $F(4, 253) = 32.40, p < .001, \eta^2_p = .34$. Simple effects analysis with Bonferroni corrections found that as predicted participants recognized more body items after viewing the high-power profile ($M = 5.25, SE = .068$) compared to the moderate-power profile ($M = 4.61, SE = .076$), $F(1, 256) = 37.67, p < .001, \eta^2_p = .13$. A Bayes factor t-test was also conducted to test the differences between body items recognized for high-power women and moderate-power women the results of which point to decisive evidence in favor of
the alternative hypothesis, specifically that more body items were recalled for high-power women than moderate-power ($BF_{10} = 5.284e +6$). In addition, participants recognized significantly fewer warmth ($M = 2.81, SE = .10$) and professional items ($M = 4.36, SE = .10$) for the high-power woman than for the moderate-power woman (warmth $M = 3.17, SE = .10$; professional $M = 5.04, SE = .08$, all $ps < .05$). Conversely, participants recalled more competence ($M = 3.05, SE = .09$) and personal items ($M = 4.65, SE = .09$) for the high-power woman than the moderate-power woman ($M_{\text{competence}} = 2.69, SE = .09; M_{\text{personal}} = 4.29, SE = .09$, all $ps < .05$; see Table 5). Self-reported power as a covariate did not interact with this effect, $F < 1$.

The number of correct items from the open-ended recall task were analyzed with a 2(power manipulation; high/moderate) x 3 (response prompt; professional/personal/physical) within-subjects ANOVA. There was a significant main effect of trait type, $F(2, 264) = 23.00, p < .001, \eta^2_p = .15$, and a non-significant main effect of power $F(1, 265) = 3.17, p = .076, \eta^2_p = .01$. As was expected, and replicating the results of the recall task in Study 1a, we found a significant interaction between trait type and power, $F(2, 264) = 29.18, p < .001, \eta^2_p = .18$. Simple effects analysis with Bonferroni corrections revealed that participants recalled significantly more body items after viewing the high-power profile ($M = 3.58, SE = .12$) compared to the moderate-power profile ($M = 3.26, SD = .11$), $F(1, 265) = 7.96, p = .005, \eta^2_p = .03$. In addition to this, participants recalled significantly more professional items ($M = 3.35, SE = .13$) for the high-power woman than for the moderate-power woman ($M = 2.52, SE = .10; F(1, 265) = 58.22, p < .001, \eta^2_p = .18$). There was no difference in the number of personal items recalled $F(1, 265) = 2.27, p = .13, \eta^2_p = .01$ (see Table 6).
<table>
<thead>
<tr>
<th>Trait</th>
<th>M HP</th>
<th>M MP</th>
<th>SE</th>
<th>F</th>
<th>p</th>
<th>$\eta^2_p$</th>
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<td>5.04</td>
<td>.12</td>
<td>32.20**</td>
<td>&lt; .001</td>
<td>.11</td>
</tr>
</tbody>
</table>

HP = High-power stimuli, MP = Moderate-power stimuli. ** indicates significance at an alpha of .001, * indicates significance at an alpha of .05.

<table>
<thead>
<tr>
<th>Trait</th>
<th>M HP</th>
<th>M MP</th>
<th>SE</th>
<th>F</th>
<th>p</th>
<th>$\eta^2_p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body</td>
<td>3.58</td>
<td>3.26</td>
<td>.11</td>
<td>7.96*</td>
<td>.005</td>
<td>.03</td>
</tr>
<tr>
<td>Personal</td>
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<td>3.57</td>
<td>.13</td>
<td>2.27</td>
<td>.133</td>
<td>.01</td>
</tr>
<tr>
<td>Professional</td>
<td>3.35</td>
<td>2.52</td>
<td>.11</td>
<td>58.22**</td>
<td>&lt;.001</td>
<td>.18</td>
</tr>
</tbody>
</table>

HP = High-power stimuli, MP = Moderate-power stimuli. ** indicates significance at an alpha of .001, * indicates significance at an alpha of .05.

**Additional Analysis**

We also conducted a Bayesian repeated measures ANCOVA on the data, with power (P) and trait (T) as within subject factors, and self-reported power (SRP) as a covariate. The model which includes the covariate of participants self-reported power is significantly better compared to the null ($B_{F10} = 4.941e-207$), however, the addition of the covariate did not offer additional explanatory value ($B_{FM} = 2.52$) compared to the ANOVA ($B_{FM} = 32.12$). The analysis of effects shows that there is strong evidence for the inclusion of power ($B_{incl} = \infty$), trait ($B_{incl} = \infty$), and the interaction ($B_{incl} = \infty$) in the model, but not for self-reported power ($B_{incl} = 0.28$). Based on this a secondary analysis was conducted without the covariate. The 'Model Comparison ANOVA' table below gives the results with respect to the different models that were compared. The
interaction (P * T) model was the preferred model \((BF_M = 1.683e + 15, B_{10} = 7.222e + 206)\). Again, the Bayes analysis supports the findings reported in the previous significance test, thus allowing us to conclude that participant power is not a significant contributor to the phenomenon.

Table 7
Model Comparison Study 1b

| Models          | P(M) | P(M|data)     | BF_M  | BF_{10} | error % |
|-----------------|------|--------------|-------|---------|---------|
| Null model      | 0.200| 1.385e-207   | 5.538e-207 | 1.000   |         |
| \(P + T + P \ast T\) | 0.200| 1.000        | 1.683e+15 | 7.222e+206 | 2.953   |
| \(T\)           | 0.200| 2.177e-15    | 8.709e-9  | 1.572e+192 | 0.780   |
| \(P + T\)       | 0.200| 1.994e-16    | 3.686e-10 | 9.328e+190 | 1.392   |
| \(P\)           | 0.200| 1.014e-208   | 4.056e-208 | 0.073   | 1.048   |

Note. All models include subject; \(P = \) Power, \(T = \) Trait

Table 8
Analysis of Effects Study 1b

| Effects | P(incl) | P(excl) | P(incl|data) | P(excl|data) | BF_{incl} |
|---------|---------|---------|---------|---------|----------|
| \(P\)   | 0.600   | 0.400   | 1.000   | 0.000   | \(\infty\) |
| \(T\)   | 0.600   | 0.400   | 1.000   | 0.000   | \(\infty\) |
| \(P \ast T\) | 0.200 | 0.800   | 1.000   | 0.000   | \(\infty\) |

\(P = \) Power, \(T = \) Trait

Discussion

Both studies 1a and 1b revealed that, across two tasks, participants consistently recognized and recalled more body-focused items for the high-power women compared to moderate-power women. As previously noted, focus on a woman’s body is the key component of sexual objectification (Fredrickson & Roberts, 1997; Gervais et al., 2012; Gervais, Holland, & Dodd, 2013), thus increased recognition and focus on body parts and physical features indicates increased sexual objectification of high-power targets relative to moderate-power targets. However, in both studies 1a and 1b participants did correctly recognize more items in some trait categories for the moderate-power woman (e.g., warmth and personal items in study 1a, and warmth and professional items in
study 1b). These findings illustrate that participants are not simply recognizing more information about the high-power woman, but rather, they are consistently recognizing more body items for high-power women and more warmth items for moderate-power women, while inconsistently recognizing traits across the other categories. The recall task demonstrates similar findings, with consistently greater recall for professional and body items associated with high-power women, and inconsistent recall across studies for items associated with moderate-power women. This pattern suggests a systematic bias in the perception of high-power women that is not simply the result of greater attention paid to high-power targets.

Participants were also asked to complete measures of social and chronic power. These measures were included as possible moderators based on past findings that have pointed to a relationship between sexual objectification and one’s perceived power (e.g., Civile & Obhi, 2016; Gruenfield, Inesi, Magee, & Galinsky, 2008). However, we failed to find evidence of a connection between sexual objectification and participants’ sense of social or chronic power. We have not been able to replicate prior findings that point to a relationship between the sexual objectification and one’s perceived power (Civile & Obhi, 2016; Gruenfield, Inesi, Magee, & Galinsky, 2008); however, past research has not focused on participants’ chronic social power as it relates to the power of the target, but instead the relationship between participants’ situationally manipulated power and an often subjugate target. Thus, the current research does not contradict past findings but expands on them by identifying a possible boundary condition of the power and objectification dynamic. Furthermore, the Bayes analysis conducted examining participants personal sense of power provides us with convincing evidence
that power as it was measured in these studies does not play a role in the sexual objectification of high-power targets.

Across both studies we recruited male and female participants. The main participant population of interest for the current research was men (study 1a), situated within the social context in which men hold much of the professional power and occupy a super-majority of powerful positions across a variety of domains. Accordingly, it is easy to see how men’s perceptions of high and moderate-power women are highly relevant to a variety of workplace situations. The choice to include female participants in study 1b was based on the opportunity it afforded for establishing whether the sexual objectification of high-power women was dependent on the target being a member of one’s outgroup. Based on past research, in which both male and female participants engaged in the sexual objectification of others, regardless of the target gender (Strelan & Hargreaves, 2005; Civile & Obhi, 2016; Vaes, Paladino, & Puvia, 2011), it is not surprising to find sexual objectification by both male and female participants. Combined, these studies suggest that sexual objectification in this context may not be dependent on in/out-group membership, nor a simple consequence of increased attentional allocation to powerful targets, but rather that sexual objectification is a systematically biased perception triggered, in part, by a target’s perceived power.

The findings of studies 1a and b, while novel, are not wholly unexpected given what we know about previously documented bias, and prejudice against women in positions of power (see: Phelan, Moss-Racusin, & Rudman, 2008; Rudman & Glick, 2001; Rudman & Phelan, 2008; Rudman, 1998; Rudman & Glick, 1999). The current set of studies provide additional insight into what women who achieve high-status positions
may endure in terms of sexual objectification. This is in addition to the established phenomenon of gender backlash, and the research on sexism (see: Hitlan, Pryor, Hesson-McInnis, & Olson, 2009; Koch, Konigorski, & Sieverding, 2014). The current findings may also be in line with Role Congruity Theory (Eagly & Karau, 2002) as women in counter stereotypical roles may be experiencing sexual objectification as a byproduct of their failure to conform to their accepted social roles.

Additionally, participants may be using sexual objectification as a means of protecting the status quo through a system justification framework, wherein negative evaluations of low-status group member, in this case women, works to reinforce the current social structure in which males are dominant (Jost, & Banaji, 1994; Jost, Banaji, & Nosek, 2004). System justification theory can also offer additional insight into why female participants sexually objectify members of their in-group, through out-group favoritism (Jost, & Banaji, 1994; Jost, Banaji, & Nosek, 2004), which posits that low-status groups may hold more positive views of higher status groups as a means of coping with inequalities. However, without a male comparison group it is hard to draw any conclusions based on the current research, and there is no current evidence that sexual objectification as such functions as a punitive means of policing group boundaries.

The current research can, however, provide us with some insight as to the added burden women may experience based on increased focus on their bodies and subsequent sexual objectification. Within the workplace women already face negative appraisals and evaluations based on divergent performance expectations and biased perceptions (see: Biernat & Kobrynowicz, 1997; Eagly, Karua, & Makhijani, 1995;
Heilman, 2001/2012; Lovoy, 2001). Adding to this sexual objectification at the hands of male and female colleagues may prove to be particularly challenging and psychologically taxing as we know from past research sexual objectification brings with it many negative affective outcomes (see: Koval, et al., 2019; Frederick & Roberts, 1997; Fredrickson et al., 1998). Understanding who may be affected by this phenomenon is therefore key to finding ways to stop individuals from sexually objectifying women in the workplace, and in finding ways to protect women from the negative psychological impact of sexual objectification.
Chapter 4 – Study 2

Power and Objectification

Introduction

Study 2 is a replication and extension of studies 1a and 1b, continuing our investigation into how power may impact the sexual objectification of women. Here we sought to test the robustness of our findings by exploring the role of industry and women’s appearance. To help ensure that our results were not specific to stereotypes of lawyers or the legal profession, we switched to women working in the technology industry. Based on the findings from studies 1a and 1b we hypothesize in the high-power women will experience more sexual objectification through body focus than the moderate-power targets. In addition to the findings of the two previous studies, the current study also draws on the previously stated research in which women in positions of power are penalized for failure to conform to gender prescriptions and norms (Rudman & Glick, 1999; Rudman & Glick, 2001; Rudman Moss-Racusin, & Phelan, 2012; Okimoto & Brescoll, 2010) thus, it is possible that sexual objectification is an added penalty faced by women who reach certain levels of professional power.

Women’s appearance is an important predictor of how they are perceived, with ample research illustrating the impact attire and hair color can have on person perception. For example, women wearing more revealing attire are typically objectified to a greater extent (Loughnan et al., 2010; Loughnan et al., 2013; Bernard & Wollast, 2019), although recent work has pointed to pose and posture as important co-occurring elements of these displays (Bernard & Wollast, 2019). These effects are not limited to
clothing; blonde women are stereotyped as less intelligent, less competent, and more promiscuous (Swami & Furnham, 2007; Weir, Fine-Davis, 1989; Takeda et al., 2005). In studies 1a and 1b, the women were all blonde and presented wearing skirts. In addition to countering possible employment related stereotypes, we sought to reduce the impact of appearance-based stereotypes in study 2 by displaying women who were brunettes and wearing trousers. We expected our findings to be robust to changes in stimuli appearance, with greater sexual objectification for high-power women compared to the moderate-power women.

Study 2 like the previous studies utilized a within-subject design, which allows us to reduce individual differences, this is of particular importance when the dependent variable of interest is reliant on memory for which individual differences are especially salient. Additionally, study 2 aimed to increase ecological validity through the comparative nature of the task this is since most individuals in real-world scenarios interact with individuals of varying status.

Method

The preregistration, and materials can be found online (https://osf.io/pkr8w/).³

Pilot Stimuli

The stimuli seen in study 2 was different in appearance, and the profiles also differed from those of study 2 as discussed in the introduction to study 2. The novel

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³ The hypotheses for study 2 was preregistered with OSF. Analysis plans, and sample sizes were all preregistered as well. The language we use to discuss this in the preregistration refers to high-power and low-power women, we have since adjusted this to high-power and moderate-power to more accurately describe the experimental conditions.
stimuli and profiles were piloted exactly as the previous stimuli and profiles. Participants 
\(n = 31\) rated the power of each woman, the high-power woman was reported as 
having more power \((M = 85.87)\) relative to the moderate-power woman \((M = 
52.90)\), \(t(30) = 8.07, p < .001\), Cohen's \(d = 1.45\). Participants also recalled the woman’s 
job title, the prestige of her university, and if she held a leadership role. Most 
participants correctly identified the woman’s occupation \((93.6\%)\), university prestige 
\((90.3\%)\), and leadership \((87.1\%)\).

Stimuli images were piloted using the same procedure and across the same 
three dimensions as the previous stimuli: age, attractiveness, and likeability \((n = 32)\). 
The final two images were compared using a 3(characteristic: age, attractiveness, 
likeability) x 2(image) repeated-measures ANOVA, which showed a significant 
interaction, \(F(2,24) = 32.84, p < .001\). Post-hoc pairwise comparisons with Bonferroni 
corrections examined differences across the three dimensions. Ratings of attractiveness 
stimulus 1 \((M = 7.50, SD = 1.33)\) did not differ significantly from stimulus 2 \((M = 
7.50, SD = 1.98, F(1,25) = 0, p = 1.00)\), nor did likeability (stimulus 1 \(M = 7.46, SD = 
1.21,\) stimulus 2,\( M = 7.27, SD = 1.87, F(1,25) = .50, p = .49\)). However, stimulus 1 \((M = 
24.38, SD = 2.84)\) did differ significantly from stimulus 2 \((M = 34.42, SD = 5.49, F(1,25) 
= 69.17, p < .001)\) in perceived age. As in the previous studies the significant difference 
in perceived age was addressed by counterbalancing the two stimuli across the 
professional profiles, meaning that each stimuli image was paired with both the high and 
moderate-power profiles, ensuring that any stimuli specific differences were evenly 
distributed across both conditions.

Profiles
Participants each viewed two profiles, identical in composition as previous stimuli.

Power

As in the previous study, target power was manipulated through different information within the profiles. This differed from the previous studies in some of the particulars, i.e., the Universities attended, the profession, and wording of the profiles, however, power was manipulated similarly through prestige of the university attended, titles, and leadership. Pilot data can be seen in the previous section.

Participant Social and Chronic Power

Social power and chronic power were both assessed using the same scales and procedure as studies 1a and 1b. Reliability was again high ($\alpha = .91$); we created a mean score for each participant.

Procedure

Study 2 replicated the within-subjects design and procedure of the previous studies.

Participants

Two hundred and forty-six white individuals living in the United Kingdom participated in the study. Participants were collected using the online platform Prolific Academic, participants all had an approval rating of 95% or higher, and participants with missing data ($n = 27$) and those who reported their gender as female ($n = 5$) were removed from our final sample ($n = 241$) of men aged between 18 – 76 (mean age = 36.16, $SD = 13.47$). A power analysis conducted using Webpower in R (Zhang et al., 2018) assuming a moderate effect size ($f = .25$) and an alpha of .05, indicates that a
sample of $n = 241$ gives us an observed power of .89. Participants were paid £1.20 ($1.64).

**Results**

The results of study 2 largely replicated those of the previous studies. We analyzed the recognition task using a 2 (power manipulation: high/moderate) x 5 (trait type: competence/warmth/professional/personal/body) within-subjects ANOVA. We found a significant main effect of trait type, $F(4, 237) = 168.34, p < .001, \eta_p^2 = .74$, and a significant main effect of power, $F(1, 240) = 50.42, p < .001, \eta_p^2 = .17$. As predicted, there was a significant interaction between trait type and power, $F(4, 253) = 21.88, p < .001, \eta_p^2 = .27$. Simple effects analysis with Bonferroni corrections (see Table 7) confirmed our prediction that participants recalled more body items after viewing the high-power profile ($M = 4.95, SE = .079$) compared to the moderate-power profile ($M = 4.64, SE = .090$), $F(1, 240) = 7.49, p = .007, \eta_p^2 = .03$. A Bayes factor t-test was also conducted to test the differences between body items recognized for high-power women and moderate-power women the results of which point to strong evidence in favor of the alternative hypothesis, specifically that more body items were recalled for high-power women than moderate-power ($BF_{10} = 5.49$). In addition to this, participants recalled significantly more competence items ($M = 3.26, SE = .08$) and personal items ($M = 4.34, SE = .09$) for the high-power woman than for the moderate-power woman (competence $M = 2.43, SE = .10$; personal $M = 3.44, SE = .09$, all $p$s < .001). There was no difference in the number of professional or warmth items recalled (all $p$s > .1) Finally, an ANCOVA including self-reported power as a covariate did not find a significant three-way interaction, $F(4, 236) = 1.72, p = .15, \eta_p^2 = .03$. 

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For open-ended recall, the number of correct items was compared using a 2 (power manipulation; high, moderate) x 3 (response prompt; professional, personal, physical) within-subjects ANOVA. A significant main effect of trait type was found $F(2, 253) = 2.14, p = .12$, $\eta_p^2 = .02$, as was a significant main effect of power $F(1, 254) = 18.47, p < .001$, $\eta_p^2 = .07$. We also found a significant interaction between trait type and power $F(2, 253) = 21.44, p < .001$, $\eta_p^2 = .15$. Simple effects analysis with Bonferroni corrections (see Table 8) revealed a replication failure participants did not recall significantly more body items for high-power women ($M = 2.98, SD = 2.10$) compared to the moderate-power women ($M = 2.86, SD = 2.02$; $F(1, 254) = .58, p = .36$, $\eta_p^2 = .003$). However, participants did recall significantly more professional items after viewing the high-power profile ($M = 3.47, SD = 2.27$) compared to the profile with less power ($M = 2.54, SD = 1.75$), $F(1, 254) = 55.47, p < .001$, $\eta_p^2 = .18$, replicating the same effect from studies 1a and 1b. There was no difference in the number of personal items recalled $F(1, 254) = .58, p = .45$, $\eta_p^2 = .002$.

Table 9
Study 2 Recognition Task

<table>
<thead>
<tr>
<th>Trait</th>
<th>M HP</th>
<th>M MP</th>
<th>SE</th>
<th>F</th>
<th>p</th>
<th>$\eta_p^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body</td>
<td>4.95</td>
<td>4.64</td>
<td>.11</td>
<td>7.49*</td>
<td>.007</td>
<td>.03</td>
</tr>
<tr>
<td>Warmth</td>
<td>2.85</td>
<td>3.00</td>
<td>.11</td>
<td>1.69</td>
<td>.20</td>
<td>.007</td>
</tr>
<tr>
<td>Competence</td>
<td>3.26</td>
<td>2.43</td>
<td>.10</td>
<td>65.87**</td>
<td>&lt;.001</td>
<td>.22</td>
</tr>
<tr>
<td>Personal</td>
<td>4.34</td>
<td>3.44</td>
<td>.10</td>
<td>78.70**</td>
<td>&lt;.001</td>
<td>.25</td>
</tr>
<tr>
<td>Professional</td>
<td>4.77</td>
<td>4.64</td>
<td>.10</td>
<td>.99</td>
<td>.322</td>
<td>.004</td>
</tr>
</tbody>
</table>

HP = High Power stimuli, MP = Moderate Power stimuli. ** indicates significance at an alpha of .001, * indicates significance at an alpha of .05.

Table 10
Study 2 Open-Ended Recall Task

<table>
<thead>
<tr>
<th>Trait</th>
<th>M HP</th>
<th>M MP</th>
<th>SE</th>
<th>F</th>
<th>p</th>
<th>$\eta_p^2$</th>
</tr>
</thead>
</table>
Body   
2.98  2.86  .11  .85  .36  .003

Personal  
3.11  3.19  .12  .58  .45  .002

Professional  
3.47  2.54  .11  55.47**  <.001  .18

HP = High-power stimuli, MP = Moderate-power stimuli. ** indicates significance at an alpha of .001, * indicates significance at an alpha of .05.

Additional Analysis

We also conducted a Bayesian repeated measures ANCOVA on the data, with power (P) and trait (T) as within subject factors, and self-reported power (SRP) as a covariate. The model which includes the covariate of participants self-reported power is significantly better compared to the null (BF_{10} = 3.125e+204), however, the addition of the covariate added no significant explanatory value (BF_M = 0.99) the ANOVA was preferred (BF_M = 81.79). The analysis of effects shows that there is strong evidence for the inclusion of power (BF_{incl} = ∞), trait (BF_{incl} = ∞), and the interaction (BF_{incl} = 5.038e + 12) in the model, but not for self-reported power (BF_{incl} = 0.11). Based on this a secondary analysis was conducted without the covariate. The interaction (power * trait) model was the preferred model (BF_M = 4.931e + 12, BF_{10} = 2.840e + 205).

Table 11
Model Comparison Study 2

| Models          | P(M) | P(M|data) | BF_M   | BF_{10} | error % |
|-----------------|------|---------|--------|---------|---------|
| Null model      | 0.200| 3.521e-206 | 1.409e-205 | 1.000   |         |
| P + T + P ❉ T  | 0.200| 1.000   | 4.931e+12 | 2.840e+205 | 1.484   |
| T               | 0.200| 8.112e-13 | 3.245e-12 | 2.304e+193 | 2.093   |
| P + T           | 0.200| 1.408e-21 | 5.634e-21 | 4.000e+184 | 0.547   |
| P               | 0.200| 8.802e-201 | 3.521e-200 | 249962.169 | 0.860   |

Note. All models include subject; P = Power, T = Trait

Table 12
Analysis of Effects Study 2

| Effects | P(incl) | P(excl) | P(incl|data) | P(excl|data) | BF_{incl} |
|---------|---------|---------|---------|---------|-----------|
| P       | 0.600   | 0.400   | 1.000   | 0.000   | ∞         |
| T       | 0.600   | 0.400   | 1.000   | 0.000   | ∞         |
| P ❉ T   | 0.200   | 0.800   | 1.000   | 7.958e-13 | 5.026e+12 |

P = Power, T = Trait
Discussion

Study 2 replicated some of the previous research findings from studies 1a and b. Participants again correctly recognized more body items for the high-power woman than for the moderate-power woman, indicating that women perceived as possessing more power in a professional context suffer from increased sexual objectification. We did not replicate the same effect in the recall task, though the trend was in the correct direction (see Table 8). Study 2 also provides evidence for generalizability across different industries and to women of different appearances. Whereas studies 1a-b looked at blonde women dressed in skirts and working in the legal profession, study 2 looked at brunette women in trousers working in tech. The current findings thus build on the results of the first two studies establishing the phenomenon of sexual objectification of high-power targets to be consistent regardless of participant gender, and the target's specific appearance. The expanded scope of these findings may provide additional insights into challenges faced by women in positions of power across multiple domains and of varying appearance.

Replicating the findings of the previous studies, we again find that participants’ sense of power is not related to their tendency to sexually objectify women. These results suggest that the higher levels of sexual objectification experienced by women in power is not dependent on the degree of power the perceiver feels they possess either chronically or in social settings. Importantly, these studies only account for the power a person feels they already possess and do not consider the possibility that a participant’s desire(s) for (types of) power may play a role in sexual objectification.
Study 2 fits with previous research which has documented bias and prejudice against women in positions of power (see: Phelan, Moss-Racusin, & Rudman, 2008; Rudman & Glick, 2001; Rudman & Phelan, 2008; Rudman, 1998; Rudman & Glick, 1999). The current study builds on what we know about women in high-status positions, and what they may endure in terms of sexual objectification. It is possible that sexual objectification occurs as an additional cost to the established phenomenon of gender backlash, and workplace sexism (see: Hitkan, Pryor, Hesson-McInnis, & Olson, 2009; Koch, Konigorski, & Sieverding, 2014). Role Congruity Theory (Eagly & Karau, 2002) may also be a factor in the current findings, as the women presented occupy counter stereotypical roles, and thus may be experiencing sexual objectification as a byproduct of their failure to conform to their accepted social roles, however, since this is not tested no concrete conclusions can be drawn.

Additionally, participants may be protecting the status quo through a system justification framework, wherein negative evaluations of low-status group member, in this case women, works to reinforce the current social structure in which males are dominant (Jost, & Banaji, 1994; Jost, Banaji, & Nosek, 2004). The system justification framework may point to sexual objectification as a means of protecting the current system by reducing women to their sexual function and eclipsing their professional accomplishments. However, since the current study does not test participants system justification motivations it is not possible to draw conclusions.

Study 2, however, can give us additional insight into what women may face in terms of increased body focus, and sexual objectification. Women in professional settings may already experience negative appraisals and evaluations based on different
expectations of performance and biases in evaluation (see: Biernat & Kobrynowicz, 1997; Eagly, Karua, & Makihani, 1995; Heilman, 2001/2012; Lovoy, 2001). The sexual objectification of high-power women in the workplace may present an additional challenge that comes with its own set of negative psychological and social outcomes (see: Bevens & Loughnan, 2019; Koval, et al., 2019; Frederick & Roberts, 1997; Fredrickson et al., 1998). Therefore, it is important to find ways of protecting women from sexual objectification in the workplace and to thwart the negative psychological effects.

Chapter 5 – Study 3

Power, Objectification, and Women of Color

Introduction

Studies 1(a and b) and 2 both found that people sexually objectify women in positions of power, regardless of the participants’ gender or social power. Building on these results, study 3 explores group identity as an additional factor that may impact the degree to which women in power are sexually objectified, thus we hypothesize that based on the findings of the three previous studies that Black women in positions of power will experience more sexual objectification compared to moderate-power Black women. This hypothesis is based on the empirical findings of the three previous studies as well as the previous research cited enumerating the many penalties experienced by
women who ascend to positions of power (Rudman & Glick, 1999; Rudman & Glick, 2001; Rudman Moss-Racusin, & Phelan, 2012; Okimoto & Brescoll, 2010).

Women of color, particularly black women, have historically struggled to obtain positions of power within professional contexts. Many reasons exist for disparities in the workplace, including systemic racism, differential access to opportunities, and the internalizing, acceptance, and endorsement of negative stereotypes (Peng, 2019; Carter & Peters, 2016; Jerald et al., 2017; Pilgrim, 2002; Epner, 2006; Brown & Segrist, 2016; Steele & Aronson, 1995). Given such challenges faced by Black women, it is important to understand whether power-induced objectification adds an additional layer of difficulty for those who manage to reach higher levels of professional power.

Study 3 expands on the current research in four ways. First, we recruited U.S. participants to generalize our findings beyond a British sample. The geographical location of this study was altered based on the well-documented and long standing historical and systematic racial disparities present in the United States (Peng, 2019). Second, Black models replaced the White models used in studies 1-2 to test whether Black women experience the same sexual objectification based on how much power they hold. Understanding if black women experience increased sexual objectification when in positions of professional power is of import as it may help illuminate why there remain discernible racial disparities in many industries (Carter & Peters, 2016), including high-power domains, such as the legal profession (Pratt, 2012; Epner, 2006). Third, we explored the possible relationship between sexual objectification and stereotypical beliefs about Black women. To do this we measured participants’ endorsement of the ‘Jezebel’ stereotype. The ‘Jezebel’ stereotype
reflects beliefs that Black women are promiscuous, manipulative, and generally lascivious in nature (Jerald et al., 2017; Pilgrim, 2002). Further, Jezebel beliefs play an important role in the sexual objectification of black women in non-professional settings (Anderson et al., 2018). Finally, to explore the role of participant power more extensively, we included an additional measure of social power. The previous three studies found no relationship between participants’ self-reported power and their tendency to sexually objectify. One possibility is that participants’ current level of power may be less important than the level of power they desire; especially if this power involves wanting - but potentially lacking - power over others. To assess this desire for power we included a measure of individuals' power motives (Suessenbach et al., 2019) allowing us to understand the extent to which participants want power, including dominance or power over others.

In short, study 3 replicates the previous work exploring the link between power and objectification. However, study 3 also aims to expand if the previous work by situating the research in a new location and racial context (i.e., the U.S.), with new targets (i.e., Black women), including a comprehensive measurement of participants power (i.e., power motives). and adding a measurement of stereotype endorsement focused on perceptions of Black women (i.e., Jezebel beliefs). Study 3 like the previous three studies was run using a within-subject design. The within-subject design allows us to reduce individual differences, this is of particular importance since the main dependent variable is reliant on memory, for which. individual differences are especially salient. Additionally, study 3 aimed to increase ecological validity through the
comparative nature of the task this is since most individuals in real-world scenarios interact with individuals of varying status.

**Method**

The materials, for this study can be found online (https://osf.io/pkr8w/).

Pilot Stimuli

An initial ten full-body, forward facing, and isolated images of Black women were piloted for age, attractiveness, likeability, and perceived race ($n = 23$). Racial identity was added as an additional pilot measure, participants were asked to select the race of the woman in the photo (White, Black or African American, American Indian or Alaska Native, Asian, Native Hawaiian or Pacific Islander, Multiracial, or Other). The final two images selected were compared using a 3(characteristic: age, attractiveness, likeability) x 2(image) repeated-measures ANOVA which showed no significant interaction, $F(2,21) = 2.77$, $p = .09$. Post-hoc pairwise comparisons with Bonferroni corrections examined differences across the three dimensions. There were no significant differences across any of the three dimensions. Ratings of attractiveness stimulus 1 ($M = 7.30$, $SD = 1.96$) stimulus 2 ($M = 6.83$, $SD = 1.72$, $F(1,22) = 1.14$, $p = .30$), likeability (stimulus 1 $M = 7.30$, $SD = 1.96$, stimulus 2, $M = 7.61$, $SD = 1.67$, $F(1,22) = .49$, $p = .49$) and age, stimulus 1 ($M = 31.91$, $SD = 6.27$) stimulus 2 ($M = 30.17$, $SD = 4.68$, $F(1,22) = 1.66$, $p = .21$) did not differ significantly between the two stimuli. In addition to this, most participants identified the stimuli’s racial identity as Black/African American (85%).

Profiles

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4 Due to an oversight a hypothesis for study 3 was not preregistered. However, data and materials have been uploaded.
The profiles used in study 3 were the same as those used in studies 1a and b with slight variations in the details that related to geographic location (e.g., Stanford and Harvard instead of Oxford and London School of Economics). The name of the law firm was also changed to reflect the change in geographic location (i.e., Kingsford & Napley LLC was changed to Kavanaugh & Nelson LLC). Aside from these changes and the use of different stimuli the remaining elements and details of the profiles remained the same.

Jezebel Measure

We used Jerald et al.’s (2017) 12-item Jezebel subscale (α = .95) adapted from the Modern Jezebel Scale (Townsend, Thomas, Neilands, & Jackson, 2010) to measure individuals’ beliefs about Black women regarding sexuality (e.g., “I think Black women are more promiscuous than other groups of women”). The questions were presented using a 6-point Likert scale (1 = “Strongly Disagree” to 6 = “Strongly Agree”).

Dominance, Prestige, and Leadership (DOPL) Measure

The DoPL scales were completed by participants following the measures of social power and chronic power previously described in studies 1a+b. The DoPL scale consisted of three questions capturing the importance of power related goals (e.g., “Being respected and admired by other people.”) answered on a 6-point Likert scale (1 = Not important to me, 6 = Extremely important to me”), and three questions related to agreement with power related statements (e.g., “When people challenge me I want to put them down hard”) answered on a 6-point Likert scale (1 = Strongly disagree, 6 = Strongly agree”).

Procedure
Study 3 was similar to the procedure and design of the previous three studies and was fully a within-subjects design. The within subject design was chosen for several reasons, first the nature of a within subject design allows us to minimize individual differences, this is important in terms of minimizing individual differences, especially, when the dependent variable of interest is reliant on memory, for which, individual differences are salient. In addition to this, the current study hoped to increase ecological validity through the comparative nature of the task, viewing both high and moderate-power stimuli align more closely with real-world experiences in which people interact with individuals of varying status. The only exceptions to this were the addition of the DoPL administered before the manipulation with social and chronic power, and the measure of stereotype endorsement which was completed following the second memory task.

Open-ended responses

The three open ended recall responses for study 3 were coded by two research assistants. The correct responses were independently summed for professional, personal, and physical items that were recalled by each participant. Researchers’ final summed items reached an acceptable Cohen’s kappa (> .75) established before the final tallies were reconciled by both coders.

Participants

Two hundred and sixty-one White individuals living in the U.S. participated in the study. Participants were collected using the online platform Prolific Academic, participants all had an approval rating of 95% or higher, and participants with missing data (n = 7) and those who reported their gender as female (n = 3) were excluded from
our final sample \((n = 251)\) of men aged between 18 – 74 (mean age = 37.01, \(SD = 14.61\)). A power analysis conducted using Webpower in R (Zhang et al., 2018) assuming a moderate effect size \((f = .25)\) and an alpha of .05, indicates that a sample of \(n = 251\) gives us an observed power of .90. Participants were paid $1.50.

**Results**

The results of study 3 largely replicated those of the previous studies. The results of the recognition task were analyzed using a 2 (power manipulation: high, moderate) x 5 (trait type: competence, warmth, professional, personal, body) within-subjects ANCOVA. The three-way interaction between power\(^5\), trait, and participant power was significant \(F(4, 246) = 5.72, p < .001, \eta_p^2 = .09\). The three-way interaction was decomposed using simple main effects with a two-way mixed ANOVA exploring the interaction between participant power and each trait across both stimuli power conditions. The two-way interaction between participant power and professional items was significant, \(F(1, 245) = 1.49, p = .04, \eta_p^2 = .83\), however, no other interaction was significant all \(ps > .3\). Participant power was not related to body item recognition \((p = .74)\) which, was the only variable for which we were interested in based on hypotheses and previous research. Based on this, the three-way interaction model was replaced by the two-way interaction model which according to the additional Bayes Factor analysis better fit the data (see Table 15). Subsequently, the data was analyzed using a 2 (power manipulation: high, moderate) x 5 (trait type: competence, warmth, professional, personal, body) within-subjects ANOVA. The main effect for power was not significant, \(F(1, 249) = 1.07, p = .301, \eta_p^2 = .004\), however, there was a significant main

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\(^5\) Unfortunately data for the DoPL scale was not analyzed due to an error in collection.
effect of trait type $F(4, 246) = 10.03, p < .001, \eta^2_p = .14$. There was a significant interaction between trait type and power $F(4, 247) = 73.22, p < .001, \eta^2_p = .54$. The two-way interaction was decomposed using simple effects analysis with Bonferroni corrections (see Table 11). Participants recognized more body items after viewing the high-power profile ($M = 4.44, SE = .10$) compared to the moderate-power profile ($M = 2.63, SE = .10$), $F(1, 250) = 288.81, p < .001, \eta^2_p = .54$. A Bayes factor t-test was also conducted to test the differences between body items recognized for high-power women and moderate-power women the results of which point to decisive evidence in favor of the alternative hypothesis, specifically that more body items were recalled for high-power women than moderate-power ($BF_{10} = 3.100e + 40$). In addition, participants recalled significantly more competence items ($M = 3.40, SE = .01$) and personal items ($M = 4.10, SE = .01$) for the high-power woman than for the moderate-power woman ($M_{\text{competence}} = 2.81, SE = .10; M_{\text{personal}} = 3.82, SE = .10$, all $p$s < .05). Conversely, participants recalled significantly more warmth items ($M = 3.12, SE = .10$) and professional items ($M = 4.62, SE = .09$) for the moderate-power woman than for the high-power woman ($M_{\text{warmth}} = 2.71, SE = .11; M_{\text{professional}} = 4.41, SE = .10$, all $p$s < .05). The measure of stereotype endorsement, Jezebel stereotype, was analyzed with a separate ANCOVA, the three-way interaction was not significant $F(4, 247) = 2.08, p = .085, \eta^2_p = .033$, thus we did not conduct any additional analyses with this measure.

The open-ended responses were analyzed using a 2(power manipulation; high/moderate) x 3(response prompt; professional/personal/physical) within-subjects ANOVA. There was a significant main effect of power, $F(1, 250) = 6.40, p = .012, \eta^2_p = .03$, trait type, $F(2, 249) = 17.18, p < .001, \eta^2_p = .12$, and a significant interaction
between power and trait type, $F(2, 249) = 42.99, p < .001, \eta^2_p = .26$. Simple effects analysis with Bonferroni corrections (see Table 12) revealed that we did not replicate previous findings for the difference in recall of body items as a function of target power ($M_{\text{high-power}} = 3.59, SD = 1.94$ vs $M_{\text{moderate-power}} = 3.60, SD = 2.09; F < 1$). However, participants did recall significantly more professional items after viewing the high-power profile ($M = 3.50, SD = 2.26$) compared to the profile with moderate-power ($M = 2.53, SD = 1.45$), $F(1, 250) = 65.22 p < .001, \eta^2_p = .21$, and more personal items for the moderate-power woman ($M = 3.09, SD = 2.00$) compared to the high-power woman ($M = 2.67, SD = 1.84, F(1, 250) = 15.30, p < .001, \eta^2_p = .058$).

### Table 13
**Study 3 Recognition Task**

<table>
<thead>
<tr>
<th>Trait</th>
<th>$M_{\text{HP}}$</th>
<th>$M_{\text{MP}}$</th>
<th>$SE$</th>
<th>$F$</th>
<th>$p$</th>
<th>$\eta^2_p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body</td>
<td>4.44</td>
<td>2.63</td>
<td>.07</td>
<td>288.81**</td>
<td>&lt;.001</td>
<td>.54</td>
</tr>
<tr>
<td>Warmth</td>
<td>2.71</td>
<td>3.12</td>
<td>.09</td>
<td>16.91**</td>
<td>&lt;.001</td>
<td>.06</td>
</tr>
<tr>
<td>Competence</td>
<td>3.40</td>
<td>2.81</td>
<td>.09</td>
<td>39.05**</td>
<td>&lt;.001</td>
<td>.14</td>
</tr>
<tr>
<td>Personal</td>
<td>4.10</td>
<td>3.82</td>
<td>.09</td>
<td>9.21**</td>
<td>.003</td>
<td>.04</td>
</tr>
<tr>
<td>Professional</td>
<td>4.41</td>
<td>4.62</td>
<td>.08</td>
<td>4.49*</td>
<td>.035</td>
<td>.09</td>
</tr>
</tbody>
</table>

HP = High-power stimuli, MP = Moderate-power stimuli. ** indicates significance at an alpha of .001, * indicates significance at an alpha of .05.

### Table 14
**Study 3 Open-Ended Recall Task**

<table>
<thead>
<tr>
<th>Trait</th>
<th>$M_{\text{HP}}$</th>
<th>$M_{\text{MP}}$</th>
<th>$SE$</th>
<th>$F$</th>
<th>$p$</th>
<th>$\eta^2_p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body</td>
<td>3.59</td>
<td>3.60</td>
<td>.11</td>
<td>.011</td>
<td>.92</td>
<td>.00</td>
</tr>
<tr>
<td>Personal</td>
<td>2.67</td>
<td>3.09</td>
<td>.11</td>
<td>15.30**</td>
<td>&lt;.001</td>
<td>.06</td>
</tr>
<tr>
<td>Professional</td>
<td>3.50</td>
<td>2.53</td>
<td>.10</td>
<td>65.22**</td>
<td>&lt;.001</td>
<td>.21</td>
</tr>
</tbody>
</table>

HP = High-power stimuli, MP = Moderate-power stimuli. ** indicates significance at an alpha of .001, * indicates significance at an alpha of .05.

**Additional Analyses**
As with the previous studies we also conducted a Bayesian repeated measures ANCOVA on the data to confirm which model best explains the data. A Bayesian repeated measures ANCOVA with power (P) and trait (T) as within subject factors, and self-reported power (SRP) as a covariate. The model which includes the covariate of participants self-reported power is significantly better compared to the null (BF₁₀ = 1.250e +139), however, the addition of the covariate added less explanatory value (BF₉ = 4.832) when compared to the ANOVA was (BF₉ = 16.763). The analysis of effects shows that there is strong evidence for the inclusion of power (BFᵢᵢᵢᵢ = ∞), trait (BFᵢᵢᵢᵢ = ∞), and the interaction (BFᵢᵢᵢᵢ = ∞) in the model, evidence for the inclusion of self-reported power was convincing (BFᵢᵢᵢᵢ = 0.537). Based on this we can conclude that the three-way interaction model, while better than the null, is not the best model for this data and should be excluded.
### Table 15
**Model Comparison Study 3**

| Models            | P(M) | P(M|data) | BF_M  | BF_10 | error % |
|-------------------|------|----------|-------|-------|---------|
| P + T + P ✻ T     | 0.100| 2.794e-140| 2.515e-139| 1.000 |         |
| P + T + SRP+ P ✻ T| 0.100| 0.651    | 16.763| 2.329e+139| 21.825  |
| T                 | 0.100| 0.349    | 4.832 | 1.250e+139| 1.837   |
| T + SRP           | 0.100| 1.731e-44| 1.558e-43| 6.197e+95| 1.299   |
| P + T             | 0.100| 1.169e-44| 1.052e-43| 4.183e+95| 1.984   |
| P + T + SRP       | 0.100| 1.266e-55| 1.139e-54| 4.530e+84| 1.315   |
| Null model        | 0.100| 8.197e-56| 7.377e-55| 2.934e+84| 1.748   |
| SRP               | 0.100| 3.089e-131| 2.780e-130| 1.106e+9| 0.800   |
| P                 | 0.100| 1.914e-131| 1.722e-130| 6.850e+8| 1.593   |
| P + SRP           | 0.100| 1.678e-140| 1.510e-139| 0.601 | 0.927   |

Note. All models include subject; P = Power, T = Trait, SRP = Self-reported power

### Table 16
**Analysis of Effects Study 3**

| Effects | P(incl) | P(excl) | P(incl|data) | P(excl|data) | BF_incl |
|---------|---------|---------|---------|---------|---------|
| P       | 0.600   | 0.400   | 1.000   | 0.000   | ∞       |
| T       | 0.600   | 0.400   | 1.000   | 0.000   | ∞       |
| SRP     | 0.500   | 0.500   | 0.394   | 0.651   | 0.537   |
| P ✻ T   | 0.200   | 0.800   | 1.000   | 0.000   | ∞       |

P = Power, T = Trait, SRP = Self-reported power
Discussion

Study 3 replicates the findings of previous studies, with participants objectifying the high-power Black woman more than the moderate-power black woman. Providing additional evidence that women presented in positions of power are sexually objectified to a greater degree than their moderately powered counterparts. Study 3 also establishes that this phenomenon is not limited to White women but extends to Black women presented as having more power. More broadly this may indicate that power-induced objectification is a difficulty faced by other groups who may already experience additional challenges based on group identity, such as sexual, racial, and religious minorities. This offers us valuable insight into additional challenges and underlying factors that may contribute to the underrepresentation of some groups at the highest levels of professional achievement.

In addition to this, study 3 also examines the possible role of stereotype endorsement in this phenomenon, specifically, the Jezebel stereotype, which measures negative beliefs about Black women in reference to their sexuality. However, we were unable to find evidence indicating that the endorsement of the Jezebel stereotype contributed in a meaningful way to the sexual objectification of Black women in positions of power. Although we were unable to link the Jezebel stereotype with sexual objectification in high-power women specifically, this does not mean that stereotypes about women and beliefs about Black women do not play a role in sexual objectification, and perhaps a more subtle measure of stereotype endorsement could provide additional insight.
Participant power was again included in this study to examine if participants' sense of social power may contribute to the sexual objectification of high-power women. We conclude based on the Bayes analysis from the four previous studies that participants' sense of power does not contribute to the recognition of body items. Indicating that the power one perceives themselves as having does not play a role in the sexual objectification of women in positions of power. While this does not strictly mean there is no relationship between one's perceived power and the tendency to sexually objectify, in this paradigm perceived power of the participant is not relevant. The power held by the women as presented in the professional profiles appears to be the only detectable factor driving the sexual objectification of women in power.

The findings of study 3 are again not completely unexpected as they fit with the pattern of results from the previous three studies, and with theories on bias and prejudice against women in positions of power, and women of color (see: Brown & Segrist, 2016; Carter & Peters, 2016; Dawson & Karl, 2019; Epner, 2006; Holder, Jackson, & Ponterotto, 2015; Hughes & Dodge, 1997; Jerald et al., 2017; Peng, 2019; Phelan, Moss-Racusin, & Rudman, 2008; Pilgrim, 2002; Powell, 2017; Rudman & Glick, 2001; Rudman & Phelan, 2008; Rudman, 1998; Rudman & Glick, 1999). Study 3 gives us additional information in terms of what challenges women of color may face when occupying positions of power in a professional context, this is of particular interest as it adds an additional layer of nuance to an already fraught situation. Women of color face discrimination based on their appearance (Dawson & Karl, 2019; Koval & Rosette, 2021; Powell, 2017), perceptions of intelligence (Holder, Jackson, & Ponterotto, 2015; Jackson, 2019; Steele, 2013; Steele & Aronson, 1995), and social class (Coleman,
Reynolds, & Torbati, 2020; Landrine, 1985; Spencer & Castano, 2007), thus the addition of sexual objectification is particularly troubling. Even more troubling when one considers that women of color may also face gender backlash, and workplace sexism (see: Hitkan, Pryor, Hesson-McInnis, & Olson, 2009; Koch, Konigorski, & Sieverding, 2014; Phelan, Moss-Racusin, & Rudman, 2008).

Role Congruity Theory (Eagly & Karau, 2002), may also be a factor in the current findings, as the women presented occupy counter stereotypical roles in terms of their gender (Hoyt & Burnette, 2013). This may mean that they are experiencing sexual objectification as a byproduct of their failure to conform to their accepted social roles, however, since this is not tested no concrete conclusions can be drawn.

Additionally, a system justification framework, wherein negative evaluations of low-status group member, in this case women, works to reinforce the current social structure in which males are dominant (Jost, & Banaji, 1994; Jost, Banaji, & Nosek, 2004) may provide some idea of the underlying motivation of the current phenomenon. System justification may account for the sexual objectification of high-power women as a means of reinforcing the social structure by discrediting women in high-power positions by downplaying status through focus on sexual function. However, we have not tested participants motivations as they relate to system justification, thus we cannot draw meaningful conclusions.

Study 2, however, can give us additional insight into what women may face in terms of increased body focus and sexual objectification. Women in professional settings may already experience negative appraisals and evaluations based on different expectations for performance and biased evaluations (see: Biernat & Kobrynowicz,
1997; Eagly, Karua, & Makhijani, 1995; Heilman, 2001/2012; Lovoy, 2001). The sexual objectification of high-power women in the workplace may present an additional challenge that comes with its own set of negative psychological and social outcomes (see: Bevens & Loughnan, 2019; Koval, et al., 2019; Frederick & Roberts, 1997; Fredrickson et al., 1998). Therefore, it is important to find ways of protecting women from sexual objectification in the workplace and to thwart the negative psychological effects.

Finally, it is important to acknowledge and discuss two items of possible concern related to the stimuli profiles. Firstly, the two models who were chosen through piloting had different hairstyles, one of the models wore her hair in a clearly natural afro style while the other had her hair pulled back. How Black women choose to wear their hair can lead to bias and have a detrimental effect in terms of hiring (see: Dawson & Karl, 2019; Koval & Rosette, 2021; Powell, 2017). However, both profile images used in this study were fully counter-balanced and participants saw both women in either the high or moderate-power conditions, thus controlling for any differences based on the individual characteristics of the profile images. Given that the images were fully counter-balanced, and the results of this study replicate the results of three previous studies, we are confident that this possible confound cannot explain the pattern of results. The second item in the profile that should be discussed is the use of the name Kavanaugh as one of the partners of the law firm in which the stimuli are employed. This could be of concern as the then nominated Supreme Court Justice Brett Kavanaugh was being accused of sexual assault, and the allegation as well as his name was prevalent in American news coverage. While it is possible that some participants made a connection between the
name of the law firm and the Brett Kavanaugh assault allegations, both profiles across both conditions contained the same information and name. This would indicate that any possible effect the name had on the participants perception would occur across both conditions making systematic differences between conditions based on the presence of the name far less likely. Additionally, since these results replicate the same pattern of findings as seen across the three previous studies, we are confident that this possible confound, although worth addressing, does not account for the current pattern of results.
Chapter 6 – Study 4

The Sexual Objectification of Men and Women in Power

Introduction

The previous studies have exclusively examined female targets, with the assumption that the phenomenon applies only to women in positions of power. However, we feel that it is important to consider whether our results apply strictly to women in positions of power or more broadly to all powerful individuals. Thus, in study 4 we have broadened our approach and methodology to include both male and female targets of high and moderate-power. We hypothesize that high-power women will be subjected to higher levels of sexual objectification relative to moderate-power women, this hypothesis is preregistered (https://osf.io/pkr8w/) and based on the previous four studies in which this phenomenon has been replicated. While we felt it important to explore the effect as it may apply to male stimuli and additional outcomes these were preregistered as exploratory and we had no specific hypothesis for male targets or outcomes (https://osf.io/pkr8w/).

Studies 1 – 3 provide us with a robust set of findings establishing the phenomenon in which high-power women are objectified compared to moderate-power women. This phenomenon occurs regardless of participant gender, or participant power, and seems to affect women of varying appearance, ethnic background, and across different professional domains similarly. However, the design of the previous studies leaves some questions unanswered which we hope to address with the final study. The aim of study 4 then is to replicate the results of previous studies with two major methodological changes. First, we will be testing this phenomenon across both male
and female targets, this is an important addition as it allows us to understand whether the phenomenon is specific to women or merely to individuals in power. Previous research has shown that individuals with higher status and power are afforded more attention (Dalmaso et al., 2011; Jones et al., 2010; Shepherd, Deaner, & Platt, 2006) thus, it is important to investigate this effect as it applies to both power and gender in tandem.

In addition to this, outcome measures meant to test behavioral implications were also added to study 4. The additional measures were meant to ascertain if there are real world costs associated with the sexual objectification of high-power targets, specifically in terms of compensation and person perception. The previous studies having established that women in positions of power are sexually objectified, based on this we felt it important to understand any real-world implications this may hold for women, who arguably still deal with inequities in professional settings. Previous research on the subject has brought to light many negative outcomes including pay disparities (Alkadry & Tower, 2011), hiring bias (Uhlmann & Cohen, 2005; Bosak & Sczesny, 2011), biases in evaluation (for a review see Rivera & Tilcsik, 2019; Heilman, 2001; Bowen, Swim, & Jacobs, 2000; Heilman, 2012), perceived competence and warmth (Heilman, 2012; Phelan, Moss-Racusin, & Rudman, 2008), and the assignment of responsibilities (De Pater & Van Vianen, 2010; King et al., 2012). Within this context, the current research hopes to examine the possible connection between sexual objectification and professional outcomes. Specifically, the current research will examine evaluations of competence, warmth, perceptions of leadership, and the awarding of salaries, as they relate to sexual objectification. As in the previous studies, we predicted more sexual
objectification for high-power women compared to the moderate-power women, both moderate and high-power male stimuli will be explored as well.

Study 4 was run utilizing a mixed-model design. The stimuli gender condition was run between-subjects, with participants being randomly assigned to either male or female targets, with the power element for each gender remaining within-subjects as in previous studies. The mixed-model design was adopted so that participants did not make gender comparisons, comparing male targets to female targets, which may have led to social desirability effects as participants may have been able to surmise certain aspects of the studies aim. In addition to this, running study 4 as a fully within design may have contributed to fatigue for the participants as it would have doubled the length of the studies and the number of items they were meant to recognize and recall during the course of the experiment.

**Methods**

The preregistration, materials, and data for all studies can be found online (https://osf.io/pkr8w/).  

**Stimuli Pilot**

Male images were selected and piloted were selected from Adobe Stock Image and piloted similarly to the previous stimuli described in previous studies. These ten images of White males were piloted for age, attractiveness, and likeability, \( (n = 26) \). The final two images selected were compared using a 3(characteristic: age, attractiveness, likeability).

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6 The hypothesis for study 4 was preregistered with OSF. Study 4’s hypothesis was preregistered and was uni-directional based on the findings of the previous studies, specifically, we hypothesized that participants would recall more body items for high-power women than for moderate-power women. The language we use to discuss this in the preregistration refers to high-power and low-power women, we have since adjusted this to high-power and moderate-power to more accurately describe the experimental conditions.
likeability) x 2(image) repeated-measures ANOVA which showed a significant interaction, $F(2,24) = 12.98, p < .001, \eta^2 = .50$. Post-hoc pairwise comparisons with Bonferroni corrections examined differences across the three dimensions. There were no significant differences between ratings of attractiveness stimuli 1 ($M = 7.08, SD = 1.32$) stimuli 2 ($M = 7.26, SD = 1.37, F(1,25) = .55, p = .47$), likeability ($M_{\text{stimuli 1}} = 6.88, SD = 1.48, M_{\text{stimuli 2}} = 7.27, SD = 1.46, F(1,25) = 1.50, p = .23$). However, there was a significant difference in the perceived age, ($M_{\text{stimuli 1}} = 33.81, SD = 4.29; M_{\text{stimuli 2}} = 30.04, SD = 4.28, F(1,25) = 25.75, p < .001, \eta^2 = .51$). As in the previous studies the significant difference in perceived age was addressed by counterbalancing the two stimuli across the professional profiles, meaning that each stimuli image was paired with both the high and moderate-power profiles, ensuring that any stimuli specific differences were evenly distributed across both conditions.
Profiles

The profiles for both the male and female stimuli were the same as those used in studies 1a and b and were identical to each other aside from the stimuli images and use of male or female pronouns.

Procedure

Study 4 was conducted using a mixed-model design. Participants started by being randomly assigned into an experimental condition where they viewed either male or female stimuli. Each set of gendered stimuli was fully counter-balanced both in terms of the order the profiles were seen and the images assigned to each power condition. Participants either saw both the high-power and moderate-power women or the high-power and moderate-power men. Similar to previous studies, participants viewed each of the two professional profiles and job descriptions and then completed two memory tasks. An open-ended set of three questions in which they recalled personal, professional, and physical items, and a recognition memory task with 20 correct targets (4 items per category, warmth, competence, personal, professional, and body) which were present in the profile, and 10 foils (2 per category) which were not present. Participants responded either “True, was in the profile”, “False, was not in the profile”, or “Unsure if it was in the profile or not”. After completing the second memory task participants then completed the additional outcome measures meant to assess

Open-ended responses

The three open ended recall responses for study 3 were coded by two research assistants. The correct responses were independently summed for professional, personal, and physical items that were recalled by each participant. Researchers’ final
summed items reached an acceptable Cohen’s Kappa (> .75) established before the final tallies were reconciled by both coders.

**Additional outcome measures**

Additional outcome measures were added to the current study to explore if a connection between the tendency to sexually objectify women in positions of power and other employment-based outcomes. To do this, participants were asked to complete a series of 6 questions directly following the trait recognition task. Participants were asked using a sliding 10-point scale how skilled, friendly, and competent they felt the person in the profile was (e.g., On a scale of 1 - 10, 1 being the least skilled and 10 being the most skilled. How skilled would you say the woman in the profile is?). Participants were also asked their opinion of how comfortable they would be with the person in the profile being their boss or supervisor (i.e., On a scale of 1 - 10, 1 being the least comfortable and 10 being the most comfortable. How comfortable would you be having the woman in the profile as your supervisor or boss?). Finally, participants were asked how much they thought the person in profile should earn and how large their annual bonus should be, both questions were presented with orienting information regarding average salaries and bonuses for the given professions (e.g., On average paralegals at Kingsford & Napley earn between £17,000 to £30,000 annually. Given this woman's credentials and experience, how much do you think she should earn?). Participants completed these 6 questions in both the male and female stimuli conditions and for each of the two profiles they viewed.

**Participants**

Four-hundred participants from the UK participated in the study. Participants were collected using the online platform Prolific Academic, participants all had an approval rating of 95% or higher, and participants with missing data \( n = 34 \) were
excluded from our final sample ($n = 366$) of men and women aged between 18 – 75 ($M_{age} = 35.46$, $SD = 13.87$). A by condition power analysis conducted using Webpower in R (Zhang et al., 2018) assuming a moderate effect size ($f = .25$) and an alpha of .05, indicates that a sample of $n = 170$ (male stimuli condition) gives us an observed power of .74, and a sample of $n = 196$ (female stimuli condition) gives us an observed power of .81. Participants were paid £1.20 ($1.64).

**Results**

Study 4 expands on the findings of the previous studies by replicating the previous findings and answering additional questions regarding the sexual objectification of men in the same context. The results of the recognition task were analyzed using a 2 (power manipulation: high, moderate) x 5 (trait type: competence, warmth, professional, personal, body) x 2(participant gender: male, female) x2 (stimuli gender condition: male, female) mixed model ANOVA. The four-way interaction between power, trait type, participant gender, and stimuli gender was not significant $F(4, 361) = 1.84, p = .067, \eta^2 = .02$. Additionally, the three-way interaction between power, trait, and participant gender was also not significant $F(4, 362) = .82, p = .63, \eta^2 = .009$. However, the three-way interaction between power, trait, and stimuli gender was significant $F(4, 360) = 4.12, p = .003, \eta^2 = .044$. To decompose this interaction the sample was split based on stimuli gender and further explored using repeated measures ANOVA and simple slopes analysis.

For female stimuli a 2 (power manipulation: high, moderate) x 5 (trait type: competence, warmth, professional, personal, body) within-subjects ANOVA was conducted. We found a significant main effect of trait type $F(4, 192) = 160.24, p < .001,$
\[ \eta^2 = .77. \] The main effect for power was not significant \[ F(1, 195) = .55, p = .46, \eta^2 = .003. \] As predicted, there was a significant interaction between trait type and power \[ F(4, 192) = 37.19, p < .001, \eta^2 = .44. \] Simple slopes analysis with Bonferroni corrections found that as predicted participants recalled more body items after viewing the high-power female profile \( (M = 5.00, SE = .09) \) compared to the moderate-power female profile \( (M = 4.52, SE = .09), F(1, 195) = 21.19, p < .001, \eta^2 = .10. \) A Bayes factor t-test was also conducted to test the differences between body items recognized for high-power women and moderate-power women the results of which point to decisive evidence in favor of the alternative hypothesis, specifically that more body items were recalled for high-power women than moderate-power \( (BF_{10} = 4550.278). \) In addition, participants recalled significantly more competence items \( (M = 3.08, SE = .10) \) for the high-power woman than for the moderate-power woman \( (M = 2.43, SE = .12, F(1, 195) = 40.05, p < .001, \eta^2 = .17). \) Conversely, participants recalled significantly more warmth items \( (M = 3.19, SE = .12) \) and professional items \( (M = 5.08, SE = .08) \) for the moderate-power woman than for the high-power woman \( (M_{warmth} = 2.63, SE = .11, F(1, 195) = 23.50, p < .001, \eta^2 = .12.; M_{professional} = 4.50, SE = .096, F(1, 195) = 35.42, p < .001, \eta^2 = .15). \) There was no significant difference between high \( (M = 4.41, SE = .11) \) and moderate-power women \( (M = 4.17, SE = .11) \) when recalling personal items \( F(1, 195) = 3.84, p = .051, \eta^2 = .02. \)

The same analysis was conducted for male stimuli, a 2 (power manipulation: high, moderate) x 5 (trait type: competence, warmth, professional, personal, body) within-subjects ANOVA was conducted. We found a significant main effect of trait type \[ F(4, 166) = 150.39, p < .001, \eta^2 = .78. \] The main effect for power was not significant \[ F(1,
There was a significant interaction between trait type and power $F(4, 166) = 28.29, p < .001, \eta^2 = .41$. Simple slopes analysis with Bonferroni corrections was conducted. Unlike the female stimuli participants did not recall more body items after viewing the high-power male profile. No difference in body item recall was detected between the high-power male ($M = 4.43, SE = .11$) compared to the moderate-power male profile ($M = 4.54, SE = .10$), $F(1, 169) = .76, p = .39, \eta^2 = .004$. A Bayes factor t-test was also conducted to test the differences between body items recognized for high-power men and moderate-power men the results of which point to no evidence in favor of the alternative hypothesis, specifically that more body items were recalled for high-power women than moderate-power ($BF_{10} = 0.045$). However, participants did recall significantly more competence items ($M = 2.98, SE = .11$) and personal items ($M = 4.67, SE = .11$) for the high-power man than for the moderate-power man (competence $M = 2.24, SE = .11, F(1, 169) = 39.20, p < .001, \eta^2 = .19$; $M_{\text{personal}} = 4.04, SE = .11, F(1, 169) = 25.09, p < .001, \eta^2 = .13$). In addition to this, participants recalled significantly more professional items ($M = 5.07, SE = .09$) for the moderate-power man than for the high-power man ($M = 4.42, SE = .11, F(1, 169) = 34.36, p < .001, \eta^2 = .17$). There was no significant difference between high ($M = 2.57, SE = .12$) and moderate-power ($M = 2.79, SE = .13$) men when recalling warmth items $F(1, 169) = 3.11, p = .08, \eta^2 = .02$.

The additional outcome measures that asked participants to rate the individual in the profile on their skill, friendliness, competence, acceptability in a leadership role, and potential income and bonus were standardized using z-scores and then analyzed using an exploratory factor analysis. From this analysis two factors emerged, and the six
items were then collapsed based on the results of the EFA. Skill, friendliness, competence, acceptability in a leadership role were collapsed into a single measure (trait), and potential income and bonus percentage were collapsed into a second measure (pay). Regression analyses were conducted in which the number of body items were used to predict both pay and trait for both the male and female moderate-power and high-power targets. Body items recognized did not explain a significant amount of the variance in pay for high-power female targets, $F(1,195) = .002, p = .97, R^2 = .000, R^2_{\text{adjusted}} = -.005$ or high-power male targets $F(1,171) = 1.49, p = .23, R^2 = .009, R^2_{\text{adjusted}} = .003$. Body items recognized also did not explain a significant amount of the variance in the trait variable for high-power female targets, $F(1,195) = .69, p = .41, R^2 = .004, R^2_{\text{adjusted}} = -.005$, or high-power male targets $F(1,171) = .18, p = .67, R^2 = .001, R^2_{\text{adjusted}} = -.002$. For moderate-power targets the pattern of results was similar with body items recognized not explaining a significant amount of the variance in pay for moderate-power female targets, $F(1,195) = .28, p = .60, R^2 = .001, R^2_{\text{adjusted}} = -.004$ or moderate-power male targets $F(1,171) = .023, p = .88, R^2 = .000, R^2_{\text{adjusted}} = -.006$. Additionally, body items recognized also did not explain a significant amount of the variance in the trait variable for moderate-power female targets, $F(1,195) = .004, p = .95, R^2 = .004, R^2_{\text{adjusted}} = -.005$, or moderate-power male targets $F(1,171) = 1.21, p = .28, R^2 = .007, R^2_{\text{adjusted}} = .001$. An additional method of analysis would have been to compute difference scores for the body recognition variables and the pay and trait variables, however, interpreting this would have been difficult.
Table 17
Study 4 Female Stimuli Additional outcomes

<table>
<thead>
<tr>
<th>Outcome</th>
<th>M HP Women</th>
<th>SD HP Women</th>
<th>M MP Women</th>
<th>SD MP Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skill</td>
<td>8.54</td>
<td>1.15</td>
<td>7.20</td>
<td>1.47</td>
</tr>
<tr>
<td>Competence</td>
<td>8.63</td>
<td>1.22</td>
<td>7.70</td>
<td>1.35</td>
</tr>
<tr>
<td>Friendliness</td>
<td>7.74</td>
<td>1.50</td>
<td>8.09</td>
<td>1.36</td>
</tr>
<tr>
<td>Leadership</td>
<td>8.11</td>
<td>1.57</td>
<td>7.50</td>
<td>1.97</td>
</tr>
<tr>
<td>Income</td>
<td>181.89</td>
<td>12.32</td>
<td>25.40</td>
<td>2.61</td>
</tr>
<tr>
<td>Bonus %</td>
<td>5.19</td>
<td>1.18</td>
<td>4.69</td>
<td>1.25</td>
</tr>
</tbody>
</table>

HP = High-power stimuli, MP = Moderate-power stimuli.

Table 18
Study 4 Male Stimuli Additional outcomes

<table>
<thead>
<tr>
<th>Outcome</th>
<th>M HP Men</th>
<th>SD HP Men</th>
<th>M MP Men</th>
<th>SD MP Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skill</td>
<td>8.15</td>
<td>1.41</td>
<td>6.90</td>
<td>1.48</td>
</tr>
<tr>
<td>Competence</td>
<td>8.16</td>
<td>1.25</td>
<td>7.33</td>
<td>1.34</td>
</tr>
<tr>
<td>Friendliness</td>
<td>7.71</td>
<td>1.53</td>
<td>8.05</td>
<td>1.31</td>
</tr>
<tr>
<td>Leadership</td>
<td>7.62</td>
<td>1.68</td>
<td>7.20</td>
<td>1.89</td>
</tr>
<tr>
<td>Income</td>
<td>177.46</td>
<td>12.72</td>
<td>25.45</td>
<td>2.78</td>
</tr>
<tr>
<td>Bonus %</td>
<td>4.74</td>
<td>1.20</td>
<td>4.43</td>
<td>1.34</td>
</tr>
</tbody>
</table>

HP = High-power stimuli, MP = Moderate-power stimuli.

The open-ended responses were analyzed using a 2(power manipulation; high/moderate) x 3(response prompt; professional/personal/physical) x 2(stimuli gender; male/female) ANOVA. The three-way interaction was not significant $F(1, 250) = 6.40, p = .012, \eta_p^2 = .03$, trait type, $F(2, 370) = .68, p = .51$. Because there was not a significant omnibus test we chose to not report any additional analysis.
Table 19
Study 4 Recognition Task Female Stimuli

<table>
<thead>
<tr>
<th>Trait</th>
<th>M HP</th>
<th>M MP</th>
<th>SE</th>
<th>F</th>
<th>(p)</th>
<th>(\eta_p^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body</td>
<td>4.93</td>
<td>4.45</td>
<td>.08</td>
<td>21.94**</td>
<td>&lt; .001</td>
<td>.10</td>
</tr>
<tr>
<td>Warmth</td>
<td>2.58</td>
<td>3.14</td>
<td>.10</td>
<td>24.47**</td>
<td>&lt; .001</td>
<td>.11</td>
</tr>
<tr>
<td>Competence</td>
<td>3.02</td>
<td>2.39</td>
<td>.09</td>
<td>39.88**</td>
<td>&lt; .001</td>
<td>.17</td>
</tr>
<tr>
<td>Personal</td>
<td>4.34</td>
<td>4.10</td>
<td>.09</td>
<td>3.84</td>
<td>.05</td>
<td>.02</td>
</tr>
<tr>
<td>Professional</td>
<td>4.42</td>
<td>4.99</td>
<td>.09</td>
<td>34.48**</td>
<td>&lt; .001</td>
<td>.15</td>
</tr>
</tbody>
</table>

HP = High-power stimuli, MP = Moderate-power stimuli. ** indicates significance at an alpha of .001, * indicates significance at an alpha of .05.

Table 20
Study 4 Recognition Task Male Stimuli

<table>
<thead>
<tr>
<th>Trait</th>
<th>M HP</th>
<th>M MP</th>
<th>SE</th>
<th>F</th>
<th>(p)</th>
<th>(\eta_p^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body</td>
<td>4.42</td>
<td>4.54</td>
<td>.08</td>
<td>.98</td>
<td>= .32</td>
<td>.01</td>
</tr>
<tr>
<td>Warmth</td>
<td>2.58</td>
<td>2.77</td>
<td>.11</td>
<td>2.43</td>
<td>= .12</td>
<td>.01</td>
</tr>
<tr>
<td>Competence</td>
<td>2.98</td>
<td>2.23</td>
<td>.09</td>
<td>41.15**</td>
<td>&lt; .001</td>
<td>.19</td>
</tr>
<tr>
<td>Personal</td>
<td>4.68</td>
<td>4.03</td>
<td>.09</td>
<td>27.14**</td>
<td>&lt; .001</td>
<td>.14</td>
</tr>
<tr>
<td>Professional</td>
<td>4.43</td>
<td>5.07</td>
<td>.08</td>
<td>34.01**</td>
<td>&lt; .001</td>
<td>.17</td>
</tr>
</tbody>
</table>

HP = High-power stimuli, MP = Moderate-power stimuli. ** indicates significance at an alpha of .001, * indicates significance at an alpha of .05.
Discussion

Replicating the first four studies, study 4 shows that participants consistently objectify high-power women compared to moderate-power women. Across all five studies the high-power female targets experience more sexual objectification, through focus on their bodies, that is robust to changes in their appearance, industry, and race. This illustrates a consistent phenomenon of power-induced sexual objectification that, based on the findings of this study, exclusively affect women in positions of power. High-power male targets were not subjected to the same sexual objectification as their female counterparts, rather, participants viewing both high and moderate-power male targets recalled similar levels of body focused items. Indicating that both the gender of the target and the power they are seen to have are crucial components to the subsequent sexual objectification.

This distinction is important for several reasons. Most importantly, it clearly shows that increased body focus is not simply a side effect of powerful people eliciting more attention. Instead, it is specifically women in positions of power whose bodies are paid more attention, or sexually objectified. While past research has shown that status and power elicit greater focus and attention from perceivers (Dalmaso et al., 2011; Jones et al., 2010; Shepherd, Deaner, & Platt, 2006), the current research indicates that it is not merely power influencing attentional resources and increasing body focus. Rather, this increase in body focus is a unique phenomenon at the intersection of gender and power, wherein women in positions of power experience elevated body focus and sexual objectification.
In addition to this, the inclusion of both male and female targets with male and female participants allows us to explore this phenomenon across different out-group and in-group memberships. The current findings show us that sexual objectification may occur regardless of whether a participant was making judgements about a member of their own group (female participants responding to female targets) or judgements about someone outside their group (male participants responding to female targets). This is of interest, as previous research has shown that individuals assign more detail to members of their group than those not in their group who tend to be viewed as homogenous and less variable (Park & Rothbart, 1982). When observing high-power women, both men and women pay more attention to her body relative to when they view moderate-power women, despite group membership.

Additional outcome measures were added to study 4 as a means of investigating what role the sexual objectification of high-power women could have on real-world outcomes, such as pay and perceptions of skill and likeability. However, there was no relationship between the tendency to sexually objectify either the male or female, high or moderate-power targets and the perception of traits or the awarding of pay. In addition to this, we did not find any significant differences in the awarding of pay between the moderate and high-power targets in either the male or female conditions. Although, this does not mean that disparities between these groups does not exist in the real world, we were unable to find any evidence for a link between sexual objectification and this set of outcomes.

The final study fits with what we know about previously documented bias and prejudice against women in positions of power (see: Phelan, Moss-Racusin, & Rudman,
Building on what we know about women in high-status positions and what they may endure in terms of sexual objectification. Wherein, sexual objectification appears to occur as an additional cost to the established phenomenon of gender backlash, and workplace sexism (see: Hitlan, Pryor, Hesson-McInnis, & Olson, 2009; Koch, Konigorski, & Sieverding, 2014). Role Congruity Theory (Eagly & Karau, 2002) may also be a factor in the current findings. This study present women, as occupying counter stereotypical or incongruent roles, while the male stimuli would appear to occupy roles congruent to their gender roles, i.e., leadership roles. Thus, it makes sense that the women in positions of power alone are experiencing sexual objectification; possibly, as a byproduct of their failure to conform to their accepted social roles. However, the current study does not test this relationship so no conclusions can be drawn.

Additionally, participants may be protecting the status quo through a system justification framework, wherein negative evaluations of low-status group members, in this case women, works to reinforce the current social structure in which males are dominant (Jost, & Banaji, 1994; Jost, Banaji, & Nosek, 2004). System justification theory can also offer additional insight into why female participants sexually objectify members of their in-group, through out-group favoritism (Jost, & Banaji, 1994; Jost, Banaji, & Nosek, 2004) which posits that low-status groups may hold more positive views of higher status groups as a means of coping with inequalities. The system justification framework may point to sexual objectification as a means of protecting the current system by reducing women to their sexual function, and eclipsing their professional
accomplishments. However, since the current study does not test participants system justification motivations it is impossible to make any inferences about this relationship.

Study 4, however, can give us additional insight into what women may face in terms of increased body focus and sexual objectification. Women in professional settings may already experience negative appraisals and evaluations based on different expectations for performance and biased evaluations (see: Biernat & Kobrynowicz, 1997; Eagly, Karua, & Makhijani, 1995; Heilman, 2001/2012; Lovoy, 2001). The sexual objectification of high-power women in the workplace may present an additional challenge that comes with its own set of negative psychological and social outcomes (see: Bevens & Loughnan, 2019; Koval, et al., 2019; Frederick & Roberts, 1997; Fredrickson et al., 1998). Therefore, it is important to find ways of protecting women from sexual objectification in the workplace and to thwart the negative psychological effects.
### Summary Tables

#### Summary Table

**Recognition Task**

<table>
<thead>
<tr>
<th>Study</th>
<th>Body HP M</th>
<th>Body MP M</th>
<th>SE</th>
<th>F Value</th>
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<td>31.81**</td>
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<td>1b</td>
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<td>37.80**</td>
<td>&lt; .001</td>
<td>.13</td>
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<td>2</td>
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<td>24.47**</td>
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<td>.11</td>
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<th>Competence MP M</th>
<th>SE</th>
<th>F Value</th>
<th>p</th>
<th>$\eta^2_p$</th>
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**HP** = High-power stimuli, **MP** = Moderate-power stimuli. ** indicates significance at an alpha of .001, * indicates significance at an alpha of .05.

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### Summary Table

**Recall Task**

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HP = High-power stimuli, MP = Moderate-power stimuli. ** indicates significance at an alpha of .001, * indicates significance at an alpha of .05.

* Since the omnibus interaction was not significant for the study 4 open ended responses simple slopes analyses were not conducted and the study has been omitted from this table.
Chapter 8 – General Discussion

Summary of Findings

Across five studies we have demonstrated that the level of power held by a woman leads to sexual objectification in a professional setting. In study 1a the all-male sample consistently recognized and recalled more body-focused items for the high-power women compared to moderate-power women. Importantly, participants personal sense of power did not contribute significantly to the model as is established through Bayes analysis and significance testing. Study 1b replicated these findings exactly in an all-female sample. In study 2, we replicated and expanded on the previous two studies by altering the profiles stimuli appearance (blonde/skirts studies, 1a & b; brunette/trousers, study 2) and industry in which she works (legal, study 1a & b; technology, study 2). Study 2 replicates the recognition task findings, specifically, participants recognized more body items correctly after viewing the high-power target and participants personal sense of power was not a significant factor; however, the results of the open-ended recall task were not significant. Study 3 shifted from the previous studies with Black women as stimuli and an all-male sample from the United States. The results replicated study 2 with significantly more body items in the recognition task for high-power women, with no differences amongst other measures. Study 4 added male stimuli, and again the previous results were replicated with high-power women having more body items recognized than moderate-power women and with no differences emerging for male stimuli. There were no power condition-based differences for male stimuli. Both men and women participated in study 4 and no differences were found for participant gender. Finally, study 4 included additional
outcome measures (skill, friendliness, competence, acceptability in a leadership role, and potential income and bonus) and these did not show any significant effects. Overall, across 5 studies we provide decisive evidence through Bayes analysis and significance testing that more body items are recognized for high-power female stimuli and thus high-power women are sexually objectified. Additionally, in studies 1a, 1b, and 4 we show a body recall effect for high-power women. These effects emerged exclusively for women, regardless of industry, attire, or ethnicity. Further, they were not qualified by participants gender or personal sense of power. Finally, they did not predict workplace outcomes.

These studies establish a conclusive pattern of sexual objectification influenced by power. More specifically, women that appear to be at the top of the professional hierarchy in their given field elicit higher levels of sexual objectification than women with moderate levels of power and men within the same field. Prior research has focused on the power of the objectifier and the sexual objectification of subordinate low-power women (Civille & Ohbi, 2015; Civille & Ohbi, 2016; Gruenfeld et al, 2008). Adopting a simple linear interpretation of this prior work would suggest that as the power of women increases the extent to which they are targets of sexual objectification should decrease. The current body of research speaks against this notion by showing that women who attain power in a professional context are not inoculated against sexual objectification, in fact quite the contrary.

Additionally, we have established that this effect applies to women of varying appearances, ethnicities, and is not constrained to one professional domain. This illustrates that it is not a single defining characteristic, such as blonde hair or high heels,
that leads to sexual objectification but rather the amount of power a woman possesses. Despite the breadth of this effect for women, the phenomenon is not a product of simply being a powerful person; as illustrated by study 4, high-power male targets are not subjected to sexual objectification. The findings of study 4 undermine simple alternative explanations that participants simply attend more to the bodies of high-power people in general.

Finally, across all five studies participants correctly recognized significantly more competence items and significantly less warmth items for high-power women compared to the moderate-power women (except for Study 2). This is a clear replication of the gender backlash effect, wherein agentic women are judged to be competent but lacking in warmth (Phelan, Moss-Racusin, & Rudman, 2008; Rudman & Glick, 2001; Rudman & Phelan, 2008; Rudman, 1998; Rudman & Glick, 1999). Further, it also supports previous research examining ambivalent prejudice towards gender non-conforming women who are often seen as competent but cold (Fiske, 2012). The replication of these two well-established effects using our memory paradigm is encouraging. The consistent replication of these established effects points to the additive nature of the current study’s findings; the sexual objectification of high-power women is not happening instead of ambivalent prejudice or gender backlash, but rather is an additional hurdle that women in power must face.

**Implications**

The previous set of studies tells us that women in positions of power are subjected to increased focus on their bodies as a measure of sexual objectification.
Although we did not find a direct relationship between the sexual objectification of high-power women and real-world outcomes such as hiring and pay disparities, the sexual objectification of high-power women still provides us with a vital piece of the puzzle in terms of understanding the challenges faced by women in the upper echelons of professional hierarchies. There are over two decades of research that establish the deleterious effects of sexual objectification. Research shows that men who sexually objectify are more likely to sexually harass (Bevens & Loughnan, 2019) and show a greater proclivity to sexually assault (Rudman & Mescher, 2012). This may mean that women in positions of power are more likely to experience these types of sexual attacks. The sexual objectification and consequent sexual harassment of women appears to be a sequential process, in which, women are dehumanized and thus easier to violate, so one would not expect this phenomenon to be a bidirectional phenomenon (see: Bevens & Loughnan, 2019; Rudman & Mescher, 2012). We also know that objectified women are more likely to be blamed for their assaults (Loughnan, Pina, Vasquez, & Puvia, 2013), and their attackers seen as less culpable (Bernard, et al., 2015). When this is paired with what we know about women in power being seen as less warm (Rudman & Glick, 1999), and victims of objectification being perceived as having lower moral status; women in power appear to be particularly vulnerable and precariously positioned in terms of sexual objectification and other forms of sexual aggression.

Self-objectification is the most well-documented negative outcome of experiencing sexual objectification (Fredrickson, & Roberts, 1997; Koval et al., 2019). It is robustly established, by over twenty years of research, that self-objectification is
accompanied by myriad negative outcomes. In terms of mental health, women who self-objectify suffer higher levels of depression (Tiggerman & Williams, 2012), body monitoring, body shame and anxiety (Calogero, Davis, & Thompson, 2005), disordered eating (Muehlenkamp & Saris-Baglama, 2002), and sexual dysfunction (Tiggerman, 2011). Socially, women who self-objectify reduce their social presence (Saguy et al., 2010) and experiencing objectification leads to feelings of ostracism (Dvir et al., 2020). Finally, self-objectification depletes cognitive resources (Fredrickson et al., 1998, Gay & Castano, 2010). Given that self-objectification is a routine outcome of experiencing objectification, this points to a serious, previously unrecognized issue for women in power. Importantly, it provides us with added context in terms of what women who obtain powerful positions may be experiencing and may illuminate the complicated struggle for women climbing the corporate ladder. In addition to this, it is not only White women who may experience this cocktail of adversities and negative experiences as they relate to obtaining high-power positions. Women of color, an historically underrepresented group in many professional settings also face increased body focus as an additional barrier to success, as seen in study 3.

From an historical perspective, the sexual objectification of women of color and more specifically of Black women in America is one rooted in exotification, dehumanization, and a history of slavery, in which Black women were kept in extreme subjugation that was often manifest through sexual objectification and commodification (Watson, Lewis, & Moody, 2019; Anderson et al., 2018; Baptist, 2001; Wijeyesinghe, Jones, 2014). While Black women in America have made progress in terms of gaining ground professionally there is still a quantifiable deficit of Black women in positions of
power (Penner, 2018; Penner, Toro-Tulio, 2010; Holder, Jackson, Ponterotto, 2015). The current findings shed some light on this complex problem by illuminating a two-fold burden of sexual objectification faced by Black women who manage to obtain positions of power, one systemic in nature based on historical subjugation, and second the phenomenon of sexual objectification as it applies to women in positions of power.

When discussing the complex set of challenges faced by both White women and women of color in the workplace, gender backlash is a well-established phenomenon (Rudman & Glick, 1999; Rudman & Glick, 2001; Rudman Moss-Racusin, & Phelan, 2012). Anecdotally, women in the professional sphere are aware of the unintended cost of scaling the corporate hierarchy, through such tropes as the “ice queen” and the “ball-breaker.” Women who aspire to high-power positions must then walk a tightrope to maintain a competent and agentic persona, while still preserving their communal and stereotypically feminine traits as a means of acquiescing to the gender norms that shape social interactions. This precarious position that women find themselves in relates to Role Congruity Theory (Eagly & Karau, 2002), in that it is possible that women in positions of power experience sexual objectification as well as prejudice, based on their violating the roles prescribed to their gender. Because of this, battling workplace sexism remains a relevant aim, and the findings presented in this thesis adds to the bank of knowledge robust evidence that women in power are also subjected to sexual objectification. The sexual objectification of high-power women should then be addressed when discussing the many barriers that women face in the workplace. The reasons for this are two-fold. First, it is imperative that women who experience sexual objectification are aware of the negative affective outcomes and receive support to cope
with these. Second, the sexual objectification of women in power needs to be acknowledged so that it can be actively combatted.

Understanding this nuanced relationship between power, gender and objectification is thus an important part of remedying workplace sexism and discrimination. Past research has examined the complex relationship between power and objectification as it applies to status and hierarchy from a top-down perspective, specifically, high-power individuals objectifying low-power ones (see Civille & Ohbi, 2015; Civille & Ohbi, 2016; Gruenfeld et al, 2008; Andrighetto, Baldissarri, & Volpato, 2016; Baldissarri, Andrighetto, & Volpato, 2014; Baldissarri, Valtorta, Andrighetto, & Volpato, 2017; Baldissarri, et al., 2019). The current body of research takes a different approach, wherein, we examine the objectification of a high-power targets, and aim our investigation at the top of the hierarchy. Deviating from the findings of previous research we find that the power of the objectifier was not a predictive factor in the sexual objectification of high-power women. Based on this, the current research sheds light on a worrying problem wherein women who have managed to reach impressive heights in terms of professional power are being subjected to sexual objectification. In a way this finding is counter intuitive, as one might assume that a woman's power and professional acumen would be protective, overshadowing and outweighing what may seem a trivial attribute, her physical appearance, sadly, the current research clearly shows that not to be the case.

Combined, the findings of this thesis and previous work on power and objectification points to a curvilinear relationship. Specifically, women at both the high and low end of the power spectrum are subjected to higher levels of sexual
objectification. This point is speculative, and further studies which include high, moderate, and low power targets, or which adopt a more continuous approach to target power are needed to assess the slope and inflection point of this potentially quadratic relationship. This is not an unprecedented finding as we know other social phenomenon also follow this same trajectory, such as liking within the stereotype content model, which illustrates a clear curvilinear relationship with competence (e.g., people can dislike both very low and very high competence social groups; Fiske, Cuddy, & Glick, 2007).

Furthermore, this research could have implications in terms of how System Justification Theory (Jost & Banaji, 1994) may manifest itself relative to sexual objectification. System Justification Theory offers insight into the underlying motives for maintaining the status quo (Jost & Banaji, 1994). The current research and the sexual objectification faced by women in high-power positions could arguably be a method of justifying group inequalities within a hierarchy. Sexually objectifying women and reducing them to the functionality of their sex may act as a way of minimizing their contribution and negatively appraising them based on their bodies, and possibly their appearance in general. However, in the current set of studies, participants sexual objectification of the high-power female targets does not provide us with informations about their underlying motivation. Furthermore, sexual objectification as a means of negative appraisal, prejudice, or boundary policing has not been established within the scope of this study, thus no concrete contribution to the system justification framework can be argued.
Taken together the current body of research presented in this thesis, fills a gap in the literature, namely understanding what is happening for women who occupy the top of the professional hierarchy, a population not yet explored in terms of workplace sexual objectification. In doing so, this research also provides additional insight into the barriers faced by women who achieve positions of power in professional settings. In addition to issues such as gender backlash, and gender bias, we can add sexual objectification to the list of challenges faced by women who achieve counter-stereotypical status in the workplace. These findings bring with them the implications that women in power are vulnerable to the negative psychological effects of both sexual objectification and subsequent self-objectification. Understanding how women may experience and be affected by sexual objectification is key to protecting them, educating women and others about the phenomenon, and most importantly, uncovering ways to combat workplace sexual objectification.

**Limitations and Future Directions**

The findings of this thesis should be interpreted while keeping in mind some key limitations. These limitations, however, provide future researchers with a useful starting point for further investigation adding to our knowledge of the complex set of barriers and challenges faced by women in the workplace, and in what we know about the relationship between sexual objectification and power.

One important limitation of this research would be in the way that objectification was conceptualized. The current set of studies only examines professional power as it relates to body focus. Whilst body focus is undoubtably a key element of sexual objectification, it does not encompass the dehumanizing aspects of objectification (Gray
The conceptualization of objectification, for the purposes of this research, was kept purposefully narrow to exclusively explore the sexualization of women through disproportionate focus on their bodies and adhering to a classic approach to sexual objectification as outlined by Fredrickson and Roberts (1997). Future studies could utilize measures of dehumanization to better understand this phenomenon and obtain a more complete picture of what is happening to women in positions of power.

Another limitation is related to the measurement being used in all five studies. Both the recognition and recall measures are novel measures developed specifically for this set of studies. These measures have not been subjected to extensive validation and were not run alongside an established measure of sexual objectification. However, previous research has used body part recognition as a measure of sexual objectification (Gervais, et al., 2012), and similar study designs have utilized trait recall measurements as a means of understanding testing the relationship between status and memory for individuating traits (Stewart & Vassar, 2000; Lorenzi-Cioldi, Eagly, & Stewart, 1995). This illustrates that while the methodology used in the current body of empirical studies is somewhat novel to sexual objectification the use of trait and body item recall is an established method used in previous research. Further, studies utilizing the recognition and recall paradigm pioneered in this thesis would benefit by being run alongside an established measure of sexual objectification for further measure validation. An additional limitation of the measurement was the inclusion of an “Unsure” option for respondents which ultimately precluded us from employing signal detection theory and
calculating $d$ prime as we did not force a correct or incorrect response. Calculating $d$ prime would have provided us with a standardized score for false alarms and a hit rates for participant responses unaffected by response bias, and ultimately measure the sensitivity and discriminability of participant responses, which would have given us a more reliable body-focus score. In future, this measurement should be adapted to force participants to answer either true or false removing the uncertain option altogether and providing a less biased measure of body-focus.

Finally, it should be acknowledged that the population of women that this research is relevant to is limited to women who identify as cisgender. This of course limits the application of this research and will most likely not apply to those who identify as transgender, or individuals who do not conform to a binary gender identity. Future research that examines sexual objectification as well as other forms of derogation and workplace bias should strive to include individuals of varying gender identity to increase empirical knowledge, battle discrimination, and create a more inclusive body of research. This research would be important as there is limited experimental data that explores the mechanism of sexual objectification as it applies to transgender individuals or non-binary individuals. Based on limited empirical research it is difficult to say what one would expect in reference to transgender and non-binary individuals’ experiences of sexual objectification, power, and professional settings.

In addition to adapting the measure being used, and expanding the conceptualization of objectification to include dehumanization, other future directions for research would include investigating why women in power are sexually objectified. For instance, prototypicality threat, the fear that one no longer represents the prototype of a
given category (Danbold & Huo, 2015) could offer insight, as it is possible that men viewing women in jobs typically held by men feel their prototypical position in these roles is threatened. In addition to this, intergroup threat should be explored as it may play a role in the motivation for why women are sexually objectified, as high-power women may produce a threat response based on women usurping the gender hierarchy and filling roles generally reserved for men. If a measure of threat, such as realistic or prototypicality threat (Danbold, & Huo, 2015; Morrison, Fast, & Ybarra, 2009) were introduced as a possible mediating factor in the sexual objectification of high-power women one could hypothesize that men under threat would show an increased proclivity for sexual objectification compared to men who were not threatened.

Similarly, social dominance orientation, the belief in and support of group dominance (Pratto, Sidanius, Stallworth, & Malle, 1994) may also factor as a desire to maintain the status quo in terms of social status and gender hierarchies. Feeling as though one’s position as a category prototype or as a member of a socially dominant group is threatened may lead some men to attempt to level the playing field through sexual objectification, reducing a woman’s status by treating her as an object as a means of nullifying the perceived threat. Future research could include a measure of social dominance as a moderating variable, if individuals highly motivated to maintain the social norms and hierarchies would be more likely to sexually objectify women who threaten that (Morrison & Ybarra, 2008). Taking this further, it would be informative to look at realistic or prototypicality threat as a mediator in tandem with social dominance orientation as a moderator. Based on previous research, we could expect individuals high in social dominance orientation who are under threat to have a heightened
response to women in positions of power, and possibly sexually objectify them as a result (Halabi, Dovidio, & Nadler, 2008; Morrison & Ybarra, 2008).

Along with including moderating and mediating variables that may provide insight into why this phenomenon occurs, future research should examine how, and if this phenomenon applies to individuals of different identities. Study 3 established that Black women are vulnerable, however, other women of color should also be examined, along with men of color to untangle the individual effects of whiteness and gender as a protective factor. In terms of identity, the attractiveness of the stimuli used may present another limitation. The stimuli used in all five studies were arguably attractive by social standards which is not representative in real-world scenarios; thus, future research could examine these effects across a spectrum of attractiveness to parse the unique contribution attractiveness plays in the objectification of high-power women.

The expansion of the current research provides many avenues of research that would provide a better and overall, more complete picture in terms of who is affected, and why they are affected by this phenomenon. However, the goal of future research should be to examine, and establish methods of combating the sexual objectification of women in power. Understanding the underlying mechanisms at play in this phenomenon is key to understanding the “why.” From this knowledge, future research should endeavor to develop behavioral interventions that mitigate the effects of sexual objectification in high-power women, or educate individuals in professional settings to limit the sexual objectification experienced by these women. Sadly, it is often the case that the victims of bias, sexism, and objectification also bear the onus when it comes to implementing a remedy. Future research should strive to understand how we can limit
or eradicate the sexual objectification of high-power women in ways that hold the perpetrators and the organizational structures that harbor them responsible.

Conclusions

The aim of this thesis was to explore whether women occupying high-power positions are subjected to higher levels of sexual objectification. We do just that, across five studies we establish a causal link between the power held by women in a professional context and the degree to which she is sexually objectified. Using a simple and adaptable measure of sexual objectification that lends itself easily to being used in other contexts with stimuli of varying identities assessing sexual objectification. More importantly, by establishing that women in positions of power experience more sexual objectification than women with moderate-power regardless of the gender or perceived power of the objectifier, our understanding of current disparities becomes that much clearer.
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