

Trait-level Predictors of Objectification in Heterosexual Men

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### Abstract

Sexual objectification is a problem routinely faced by nearly all Australian women, yet little work has been done to understand the traits of heterosexual men who are most likely to objectify women. Sexual objectification occurs when a woman's sexual parts or functions are separated from the rest of her personhood for either use or to replace her identity. Experiencing sexual objectification is associated with increased body shame and eating disorder symptoms, and has been experimentally linked to reduced cognitive performance. The present study aimed to determine the strongest trait-level predictors of sexually objectifying behaviours and attitudes in heterosexual men. 164 heterosexual adult males completed a short online survey which measured traits including aggression, empathy, hostile sexism, benevolent sexism, and desire for power, as well as a measure of interpersonal sexual objectification (both behaviours and attitudes). This study also considered, as a secondary aim, the relationship between dehumanisation and objectification. Higher levels of sexual objectification perpetration were associated with lower levels of empathy, lower agreeableness, lower openness, increased hostile and benevolent sexism, increased aggression, and an increased desire to have power over others. Regression analyses indicated that hostile sexism and affective empathy explained unique variance in the prediction of sexual objectification. Results also indicated that animalistic dehumanisation of women was associated with sexual objectification of women. This research is an early, but nonetheless necessary, steppingstone in the development of interventions to help reduce sexual objectification in Australian society.

*Keywords:* objectification, sexism, dehumanisation

### Declaration

This thesis contains no material which has been accepted for the award of any other degree or diploma in any University, and, to the best of my knowledge, this thesis contains no material previously published except where due reference is made. I give permission for the digital version of this thesis to be made available on the web, via the University of Adelaide's digital thesis repository, the Library Search and through web search engines, unless permission has been granted by the School to restrict access for a period of time.

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September 2020



### Contribution Statement

The broad focus, and intended methodological approach, of this thesis was developed by my supervisor, Professor Peter Strelan. My supervisor and I collaborated to narrow the focus of this thesis and to select traits to measure. I conducted the literature review, prepared an ethics application, and wrote all sections of the thesis with the advice and feedback of my supervisor. My supervisor recommended Prolific as a means to recruit participants. I was responsible for the recruitment of participants and analysis of data, with feedback and assistance from my supervisor. I provided financial compensation to participants recruited through Prolific. Data analysis was partially conducted with the use of the PROCESS Macro developed by Andrew F. Hayes.

### Acknowledgements

I would like to thank my supervisor, Professor Peter Strelan, for his dedication in guiding me throughout this year. Peter always made time to work through my concerns, had genuinely useful wisdom to impart, and related to me in a manner which made the thesis seem much less daunting. I am grateful to have worked with someone with such a wealth of experience.

### Introduction

Sexual objectification (where one is treated as a sex object) is a pervasive issue faced by nearly all women in Australian society. According to the social philosopher Martha Nussbaum (1995), there are at least seven facets of objectification, any one of which is sufficient to infer its presence. These are instrumentality (using the target for one's own purposes), denial of autonomy, inertness (treating the target as lacking agency), fungibility (the target is interchangeable with similar objects), violability (it is permissible to physically break up or break into the target), ownership, and denial of subjectivity (denial of emotions of the target; Nussbaum, 1995). There are a number of forms of objectification that fit within this paradigm, including slavery, appearance-focussed objectification, and sexual objectification (Morris, Goldenberg, & Boyd, 2018; Nussbaum, 1995). The present study is concerned with sexual objectification, which can be defined as a type of objectification where the sexual parts or functions of a woman are separated from the rest of her for either instrumentation (use) or to replace her identity (Bartky, 1990, p. 26). While many studies do not distinguish between appearance-focussed and sexual objectification, they are still useful in predicting the aetiological network of sexual objectification due to broader conceptual links.

Objectification can have significant negative consequences for those who experience it. Experiments have demonstrated that objectified targets experience poorer cognitive performance (Gervais, Vescio, & Allen, 2011) and increased aggression in response to a loss of power (Poon, Chen, Teng, & Wong, 2020). Correlational studies have found that greater frequency of objectification is associated with increased body surveillance, body shame, eating disorder symptoms, and internalisation of sociocultural standards of beauty (Luo, Niu, Kong, & Chen, 2019; Moradi, Dirks, & Matteson, 2005). These results are all consistent with *objectification*

*theory* (Fredrickson & Roberts, 1997), which posits that repeated experiences of interpersonal sexual objectification lead a victim to internalise the perceiver's perspective. Consistent with objectification theory, the present study focuses on interpersonal objectification experiences (not victim-absent discussions or social media type objectification), which exist on a spectrum from the less overt (e.g. objectifying gazes) to the more overt (e.g. unwanted sexual touching).

Despite a strong body of literature on the consequences of objectification, there have been comparatively few studies on the traits and contextual factors associated with perpetration of sexual objectification. Determining the constellation of traits associated with a high proclivity to sexually objectify is a necessary step towards reducing objectification. Consider the related problem of sexual harassment, where knowledge of the relationship between empathy and likelihood to sexually harass has led to the successful testing of empathy interventions to reduce sexual harassment (Diehl, Glaser, & Bohner, 2014). In addition, just as knowledge of sexual assault perpetrator characteristics influences policy and practice regarding sexual assault prevention (Greathouse, Saunders, Matthews, Keller, & Miller, 2015), so too is it important to understand the characteristics of those who sexually objectify.

To date, there has only been one study that simultaneously assessed multiple trait-level variables in relation to objectification perpetration. Costello, Watts, Murphy, and Lilienfeld (2019) investigated the link between psychopathic traits and objectifying behaviours and attitudes. However, psychopathic traits occur with very low prevalence in community and workplace populations (Babiak, Neumann, & Hare, 2010), limiting the usefulness of such a study in informing potential interventions. For this reason, the majority of traits explored by Costello, Watts, Murphy, and Lilienfeld (2019), except for empathy and Big-5 personality, were excluded from the present investigation in favour of traits deemed more likely to occur in the

general population. The present study is concerned with measuring multiple perpetrator traits simultaneously to determine which are the strongest predictors of objectifying behaviours and attitudes. A cross-sectional survey design is the most appropriate way to capture these measures in a time-efficient manner. The effect of impression management on self-report assessments of behaviour and attitudes likely means that there will be strong concordance between objectifying behaviours and attitudes, as previous research has found (Costello et al., 2019). That is, it is expected that (self-reported) attitudinal and behavioural sexual objectification will share the same aetiological networks. Thus, measuring both objectifying attitudes and objectifying behaviours creates an opportunity to assess the concurrent validity of each measure.

Sexual harassment shares conceptual links with sexual objectification as it incorporates notions of instrumentality, violability, inertness and denial of subjectivity. Thus, one might expect parallels between the motivational factors behind sexual objectification and sexual harassment. It is thought that there are two broad motives for sexual harassment: hostile motives and sexual motives (Page & Pina, 2015). Sexual motives include attraction and gratification-based goals, whereas hostile motives include maintaining male power and personal status. It seems reasonable to assume that sexual objectification will follow the same pattern, as evidence suggests that men objectify women to maintain male power and reinforce patriarchy (Gervais, Saez, Riemer, & Klein, 2020), as well as to obtain sexual pleasure (Shepherd, 2019).

The present study is concerned with determining the traits thought to predict sexually objectifying attitudes and behaviours, all of which relate to hostile and/or pleasure motivations, and with determining the strongest predictor of objectification above and beyond the shared variance of other predictors. A second exploratory aim of the present study is to elucidate the relationship between sexual objectification and dehumanisation, discussed in detail below.

**Dehumanisation**

Dehumanisation shares strong conceptual ties to behavioural and attitudinal objectification. According to Haslam's (2006) dual model of dehumanisation, individuals can deny the humanness of others in two distinct yet related ways. Mechanistic dehumanisation involves the denial of 'human nature' traits, such as interpersonal warmth and emotionality, thus likening people to inanimate objects. On the other hand, animalistic dehumanisation involves the denial of 'uniquely human' traits such as civility and rationality, thus likening people to animals. Haslam (2006) suggests that both types of dehumanisation can occur simultaneously.

In a similar way, it is thought that objectification manifests in a number of different ways (Nussbaum, 1995). Morris and Goldenberg (2015) suggested the existence of at least two distinct forms of objectification: appearance-focussed objectification (a focus on beauty or physical appearance), and sexual objectification (a focus on sexual features or functions). Morris and Goldenberg (2015) further suggested that these objectifying processes each relate to distinct dehumanising processes, such that animalistic dehumanisation is associated with sexual objectification and mechanistic dehumanisation is associated with appearance-focussed objectification. A follow-up experiment conducted by Morris, Goldenberg, and Boyd (2018) supported this proposed relationship.

However, there is some evidence that cannot easily be reconciled with the paradigm proposed by Morris and Goldenberg (2015). A number of experiments (e.g. Pacilli, et al., 2017; Loughnan, Pina, Vasquez, & Puvia, 2013) have found a connection between sexual objectification and denial of moral patiency (and/or ability to suffer). Moral patiency (the right to be protected from harm) and perceived ability to suffer are related to attributes of human nature (Morris & Goldenberg, 2015; Haslam, 2006). Thus, these experiments suggest that sexual

objectification is connected to mechanistic, and not animalistic, dehumanisation. Other research has found no connection between objectification and either moral patiency or ability to suffer (Holland & Haslam, 2013). It is possible that these different findings for the relationship between objectification and dehumanisation reflect the influence of motivational factors (Morris & Goldenberg, 2015). This is consistent with Nussbaum's (1995) theory of objectification, which suggests that denial of subjectivity (which corresponds to a denial of moral patiency, and thus implicates mechanistic dehumanisation) need not be present in all objectification. In the case of sexual objectification, it may be that sexist attitudes act as a motivational factor which influence the way that women are dehumanised. Cikara, Eberhardt, and Fiske (2011) provided preliminary evidence to support this by showing that, when viewing sexualised women, only those men who were high on hostile sexism showed reduced activity in brain regions associated with mental state attribution. That is, women were differentially dehumanised by men according to their level of sexism. This parallels other research which suggests attribution of moral patiency to animals relates to motivational state (Bastian, Loughnan, Haslam, & Radke, 2012; Loughnan, Haslam, & Bastian, 2010).

The present study is concerned with assessing the relationship between sexual objectification (attitudes and behaviours) and dehumanisation, as well as the potential moderating influence of sexism on that relationship. The specific nature of the moderating relationship is not predicted as there is a lack of sufficient empirical data, however it is expected that sexism will demonstrate an interaction effect by acting as a motivational factor which alters the objectification-dehumanisation relationship. Previous research has focussed on experimental manipulation of objectification using photographic stimuli; therefore, the present study aims to extend these findings into the interpersonal domain. Note that as there are no well-trusted

instruments available to assess appearance-focussed objectification, this variable could not be assessed.

### **Traits Expected to Relate to Objectification**

#### ***Empathy***

One of Nussbaum's (1995) proposed objectification facets, denial of subjectivity, refers to a failure to acknowledge or show concern for the feelings and experience of others. It seems clear that this constitutes a failure to act empathetically. It is unsurprising, therefore, that Costello, Watts, Murphy, and Lilienfeld (2019) demonstrated that individuals who behaviourally and attitudinally objectified women were likely to be lower in both cognitive and affective empathy. Similarly, Farley, Golding, Matthews, Malamuth, and Jarrett (2015) found that sex-buying males were more likely than non-sex-buyers to have empathy deficits (where empathy was operationalised as correctly predicting the emotional states of women in prostitution). Note that purchasing sex can be considered a sexually objectifying behaviour (Gervais & Eagan, 2017) as it implicates several of Nussbaum's objectification facets, specifically, instrumentality and denial of autonomy, and may involve ownership and fungibility. Finally, in cases of non-physical sexual coercion, perpetrators have been found to possess lower levels of trait empathy than non-perpetrators (DeGue & DiLillo, 2004). In accordance with these findings, it is expected that those with lower empathy will be more likely to objectify women, regardless of sexual or hostile motives, as they will be less averse to denying the subjectivity of the target.

#### ***Ambivalent Sexism***

According to the theory of ambivalent sexism proposed by Glick and Fiske (1996), sexism has two related manifestations, *hostile* and *benevolent* sexism. While benevolent sexism is ostensibly positive, both hostile and benevolent sexism capture notions of paternalism (male



power), gender differentiation and heterosexuality. Given that sexism, like objectification, involves neglecting a woman's actual capacity and personhood (Gurung & Chrouser, 2007), one might expect a connection between the two. Bareket and Shnabel (2020) found evidence that men with a higher motivation to maintain male social dominance were more likely to objectify women, especially when their power was threatened. Given that both hostile and benevolent sexism encourage paternalism, where men either dominate (hostile sexism) or protect (benevolent sexism) women, the results of Bareket and Shnabel (2020) suggest a connection between sexism and objectification from motives of paternalism. It seems likely that pleasure motives will also produce this relationship, as hostile and benevolent sexism both include notions of heterosexuality. In addition, Compton (2016) found an explicit relationship between hostile sexism and an increased frequency of gazing behaviour. Together, these studies suggest that a relationship between sexism and objectification (behavioural and attitudinal) may result from both sexual and hostile motives. Thus, it is expected that both benevolent and hostile sexism will produce this relationship. This is especially probable given that participants are likely to be undergraduate students – a population where hostile and benevolent sexism are more likely to coexist (Glick & Fiske, 1996).

### ***Need for Power***

Nussbaum (1995) suggested that objectifying another person is an experience of profound power. One might anticipate this, as reducing the status of a human being to that of an object implicitly (and sometimes explicitly) elevates the relative status of the perpetrator, bringing a sense of superiority. Consequently, it is expected that those who have a greater need for power will be more likely to sexually objectify women in order to meet that need. A study by

Bareket and Shnabel (2020) supported this connection by demonstrating that need for power has a significant relationship with sexual objectification proclivity.

### *Sense of Power Scale*

There is evidence for a relationship between perceived power held over others and objectifying them. For example, an experiment by Gruenfeld, Inesi, Magee, and Galinsky (2008) demonstrated that individuals in power conditions were considerably more likely than those in non-power conditions to approach social targets in an objectifying manner (that is, with instrumentality in mind). Researchers suggested that possessing social power, even temporarily, increases goal-directed behaviours, which in turn creates a focus on the instrumentality of people (i.e. their usefulness in achieving the goal). Recall that instrumentality is a key facet of objectification. Thus, although this experiment considered objectification broadly, its theoretical underpinnings suggest the same relationship will hold for sexual objectification. In fact, subsequent research found the same connection between power and sexual objectification in a sample of undergraduate Chinese students (Xiao, Li, Zheng, & Wang, 2019). Therefore, it is expected that those with a high sense of power over women will show increased sexual objectification perpetration.

### *Personality*

There has only been one study that investigated the role of broad personality factors in interpersonal sexual objectification perpetration. Costello, Watts, Murphy, and Lilienfeld (2019) found that both attitudinal and behavioural objectification were negatively associated with agreeableness, openness, and conscientiousness. Low agreeableness often predicts low concern for the emotions, preferences, or rights of others (Soto and John, 2017). In other words, those who are low on agreeableness care little for the subjectivity or individuality of others, which by

definition implicates objectification (Nussbaum, 1995). Individuals who have low conscientiousness exercise reduced control over their own thoughts, behaviours and feelings (Roberts, Chernyshenko, Stark, & Goldberg, 2005). It follows that such men, particularly when motivated (by pleasure or power concerns), would be more likely than highly conscientious men to objectify women. Low openness has also been implicated in sexual assault perpetration, where it is thought to reflect an endorsement of traditional gender roles (and thus behaviours that enforce them; Voller, 2007). This explanation is supported by evidence for a significant, though weak, correlation between openness and both hostile and benevolent sexism (Hellmer, Stenson, & Jylhä, 2018). If the same connection exists for interpersonal sexual objectification, one might expect that the relationship between openness and objectification will be mediated by ambivalent sexism. The present study will investigate this possibility.

### *Aggression*

Vasquez, Osinnowo, Pina, Ball, and Bell (2017) found evidence of a direct association between trait aggression and sexually objectifying attitudes, although their study was somewhat limited by the use of an unverified measure of objectification. There is also less direct evidence to suggest that objectifying behaviours share a similar relationship to trait aggression. For example, a study of (non-physical) sexual coercion by DeGue and DiLillo (2004) found that male perpetrators scored higher on aggression than non-perpetrators. Smallbone & Dadds (2001) found a similar relationship when considering both physical and non-physical sexual coercion together. Inasmuch as sexual coercion can be considered an objectifying behaviour, one might expect this relationship to generalise to other forms of sexual objectification. Supporting this connection, Gervais, DiLillo, & McChargue (2014) found that sexual objectification, including less 'severe' forms such as unwanted body evaluations, had a significant association with sexual

violence. In fact, violence (a subtype of aggression) emerges as a common theme in a number of objectifying behaviours, from sexual assault to the commercial sex industry and human trafficking (Gervais & Eagan, 2017). The correlation between aggression and objectification likely reflects a desire to reduce moral concern for the objectified, and thus facilitate an aggressive outlet (Vasquez, Osinnowo, Pina, Ball, & Bell, 2017).

### **Hypotheses and Aims**

The present study has three main aims:

1. To explore the correlates of sexually objectifying behaviours and attitudes in heterosexual men.
2. To determine the strongest predictors of sexually objectifying behaviours and attitudes in heterosexual men, above and beyond the shared variance between predictors.
3. To elucidate the relationship between dehumanisation and sexual objectification, and the potential moderating role of sexism.

In accordance with the research aims and surveyed literature, the following relationships are hypothesised:

1. Hostile sexism, benevolent sexism, sense of power and aggression will be positively associated with sexual objectification.
2. Agreeableness, openness, conscientiousness and empathy will be negatively associated with sexual objectification.
3. Sexism will mediate the relationship between openness and sexual objectification (see *Personality* section).

## Method

### Participants

#### *Participant Characteristics*

A convenience sample of  $N = 164$  men were recruited. All participants were heterosexual men, aged 18 years and over ( $M = 24$ ), and fluent in English. A power analysis in RStudio indicated that at least 159 participants were required to detect small correlations ( $r = 0.22$ ,  $\alpha = 0.05$ ,  $\beta = 0.8$ ), while a comparable sample size of 164 would be sufficient for a regression with a small effect size and up to 14 predictors ( $f^2 = 0.12$ ,  $\alpha = 0.05$ ,  $\beta = 0.8$ ).

#### *Sampling procedure*

Prior to the collection of data, ethics approval was granted by the Ethics Subcommittee in the School of Psychology at the University of Adelaide. Participants were recruited online through the University of Adelaide's undergraduate participant pool, through Facebook, and through Prolific. In an attempt to preserve heterogeneity in the sample, participants recruited through Prolific were selected in accordance with common characteristics of Adelaide University students (Australian nationals, aged 18-30). First year participants taking undergraduate psychology were granted research participation credit for their time. Participants were provided with a link to a survey hosted by Qualtrics, which included study and consent information. Data collection stopped when the sample size determined by the *a priori* power analysis was reached.

### Measures

The study employed a cross-sectional survey design. A pilot study was conducted with 3 participants to verify comprehensibility of the survey. The survey took approximately 15-20 minutes to complete. Variables are presented below in the same order that they appeared to participants.

***Demographic information***

Participants were asked to verify their eligibility (heterosexual, 18 years or over, male) and were asked for their age.

***Objectification***

Sexual objectification was measured using the Interpersonal Sexual Objectification Scale – Perpetrator Version, Revised (ISOS-PR; Costello, Watts, Murphy, & Lilienfeld, 2019). The ISOS-PR is a 21-item questionnaire that measures interpersonal sexually objectifying behaviours and attitudes. The behaviour subscale (14 items) asked how often participants engaged in specific behaviours (e.g. gazing, unwanted sexual touching) on a 5-point Likert scale, running from ‘*Never*’ to ‘*Always*’. The attitude subscale (7 items) measured agreement with objectifying sentiments (e.g. ‘the value of most women can be judged by just looking at them’) using a 5-point Likert scale running from ‘*Disagree*’ to ‘*Agree*’. Internal consistency for behavioural and attitudinal subscales were .85 and .69 respectively.

***Dehumanisation***

Dehumanisation was measured within the dual model paradigm proposed by Haslam (2006). Humanness traits were taken from Morris, Goldenberg, and Boyd (2018), with 12 capturing dimensions of human uniqueness (e.g. *intelligent, refined*), 12 capturing dimensions of human nature (e.g. *talkative, emotional*), and 1 neutral trait (*impatient*). This trait-ascription task was modified from Morris, Goldenberg, and Boyd (2018) to reflect a target group, rather than an individual. Participants were asked to indicate the extent to which the 25 traits were typical of women in general. Responses were recorded on a 5-point Likert-type scale which ran from ‘*Very atypical*’ to ‘*Very typical*.’ Mechanistic dehumanisation was implicated by low ascription of human nature traits, while animalistic dehumanisation was implicated by low ascription of

uniquely human traits. Internal consistency for animalistic and mechanistic subscales were .87 and .89 respectively.

### ***Empathy***

Empathy was measured using the Interpersonal Reactivity Index (IRI; Davis, 1980). The IRI consists of 28 items with four subscales of 7 items measuring perspective taking, empathic concern, fantasy, and personal distress. Participants respond to statements (e.g. '*When I see someone being taken advantage of, I feel kind of protective toward them*') on a 5-point Likert scale that runs from '*Does not describe me well*' to '*Describes me well.*' In accordance with previous research (e.g. Cox, et al., 2012; Rankin, et al., 2006) only the perspective taking and empathic concern subscales were used due to validity concerns with the fantasy and personal distress scales (Baldner & McGinley, 2014; Jolliffe & Farrington, 2004). In keeping with these studies, perspective taking and empathic concern are taken to represent cognitive and affective empathy respectively. Internal consistency for empathic concern and perspective taking subscales were .77 and .80 respectively.

### ***Need for Power***

Participant's desire to obtain social power over others was measured using the Need for Power (nPower) subscale of the Index of Personal Reactions (Bennett, 1988). nPower captures a desire to attain the capacity to 'apply sanctions, coerce or force others to behave in intended ways' (Bennett, 1988). Participants indicated the extent to which 10 items measuring nPower (e.g. '*I do not particularly like having power over others*') were characteristic of them on a 5-point Likert scale ranging from '*Not at all*' to '*Very much.*' Internal consistency for the nPower scale was .85. The present study focussed on power, rather than influence, due to conceptual links within Nussbaum's framework and previous research which focused on power relations.

Thus, Bennett's (1998) related Need for Influence scale (nInfluence) was not included in the present study. The nInfluence scale considers influence in a non-personal sense (the desire to influence people for its own sake), which differs from the conceptualisations of power employed in the present study.

### *Sense of Power*

While it would have been ideal to use Bennet's (1988) measure of a sense of power, he was unable to construct a univariate measure of sense of power over others, so a measure of social power was used in the present study. Sense of power was measured using the Sense of Power Scale developed by Anderson, John, and Keltner (2012). This measure was favoured as Anderson, John, and Keltner (2012) conceive power in a similar manner to Bennett (1998) – that is, the capacity to control others, rather than the capacity to remain unaffected by the choices of others (autonomy). In particular, the Sense of Power Scale measures a personal sense of capacity to influence others to ensure a personally desired outcome (distinct, however, from Bennet's nInfluence conceptualisation). Note that this definition of power differs from that of nPower (which incorporates notions of institutional power), as influence can be resisted in a way that institutional power cannot be. Participants responded to eight items on a 7-point Likert-type response scale ranging from '*Disagree strongly*' to '*Agree strongly*'. Participants were instructed to consider their relationships with women in response to the eight items which addressed power in interpersonal encounters (e.g. '*my wishes do not carry much weight*'). Internal consistency for the sense of power scale was .77.

### *Sexism*

Sexism was measured using the Ambivalent Sexism Inventory (Glick & Fiske, 1996), which conceives sexism with two related facets – benevolent sexism (11 items) and hostile



sexism (11 items). Benevolent sexism reflects notions of protective paternalism (the belief that men should protect women, who are perceived as weak), complementary gender differentiation (the belief that women possess some admirable qualities than men do not), and heterosexual intimacy (the belief that men require women to be happy). Conversely, hostile sexism reflects beliefs that men should dominate women, that women are inferior to men, and that women can manipulate men with their sexuality (Glick & Fiske, 1996). Participants are asked to indicate their agreement with a number of statements (e.g. *'Women are too easily offended'*) on a 5-point Likert scale ranging from *'Disagree strongly'* to *'Agree strongly.'* The inventory returns separate scores for hostile and benevolent Sexism, which can be averaged to give a measure of overall sexism. Internal consistency for hostile sexism and benevolent sexism subscales were .82 and .79 respectively.

### ***Aggression***

Aggression was measured using the Brief Aggression Questionnaire (BAQ; Webster, et al., 2014). The BAQ is a 12-item measure of aggression with four 3-item subscales (anger, hostility, physical aggression and verbal aggression). Participants were presented with 12 descriptive statements (e.g. *'Given enough provocation, I may hit another person'*) and asked to indicate the extent to which each statement was characteristic of them. Responses were given using a 5-point Likert scale which ran from *'Extremely uncharacteristic'* to *'Extremely characteristic'*. Previous research has showed low internal consistencies of the 3-item subscales, and as such only an overall score for aggression was used. Internal consistency for the BAQ was .79.

### ***Personality***

Personality was measured using the Big Five Inventory-2-Short (BFI-2-S; Soto & John, 2017a). The BFI-2-S is a 30-item measure of personality which captures each of the domains of the five-factor model of personality, namely extraversion, negative emotionality, open-mindedness, conscientiousness and agreeableness. Participants were asked to indicate the extent to which a number of characteristics were representative of them (e.g. ‘I am someone who tends to be quiet’). Responses were recorded on a 5-point Likert scale which ran from ‘*Disagree strongly*’ to ‘*Agree strongly*’. Despite being half the size of the original BFI-2 (Soto & John, 2017b), the BFI-2-S retains strong reliability and validity (Soto & John, 2017a). However, the BFI-2-S is not recommended for use at a facet level in sample sizes less than 400 (Soto & John, 2017a) and as such, the present study was restricted to the domain level. Internal consistencies were all at acceptable levels, ranging from .70 for openness to .83 for negative emotionality.

## Results

### Bivariate Correlations Between Key Variables

Data analysis was conducted using IBM SPSS Version 26. Normality was assessed using Kolmogorov-Smirnov and Shapiro-Wilk tests of normality. The majority of variables demonstrated significant deviations from normality ( $p < .05$ ). However, both the Kolmogorov-Smirnov and the Shapiro-Wilk tests are prone to report significant deviations from normality in large samples when deviations are in fact negligible (Field, 2018). Normality assessments based on tests of skewness and kurtosis are similarly prone to return misleading results in large samples (Tabachnick & Fidell, 2007). Therefore, QQ-plots were inspected to assess normality. When subjected to this visual inspection, all variables showed approximate normality.

Table 1 shows zero-order correlations for main variables. All significant relationships were in the hypothesised directions, and all expected correlations, bar two, were found. The strongest correlations in direction and statistical significance were with hostile sexism for both attitudinal ( $r = .555, p < .000$ ) and behavioural ( $r = .328, p < .000$ ) objectification.

Conscientiousness was not significantly related to either behavioural ( $p = .097$ ) or attitudinal ( $p = .508$ ) objectification, while sense of power returned negligible relationships. In addition, benevolent sexism was significantly related to attitudinal objectification ( $p < .01$ ), but not significantly related to behavioural objectification ( $p = .134$ ).

### Predicting Behavioural and Attitudinal Objectification

Following analyses at the zero-order level, data was submitted to simple linear regressions. Two regressions were performed, one with each of attitudinal objectification and behavioural objectification as the outcome variable. In each regression a scatterplot of residuals was produced to assess assumptions of normality, linearity, and homoscedasticity in accordance

**Table 1***Zero-order Correlations for Main Variables*

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Behavioural Objectification	1	.441**	-.247**	-.287**	0.126	-.281**	-0.130	0.038	-.204**	0.086	0.118	.328**	.284**	.324**	.214**	-0.022	0.030
2. Attitudinal Objectification		1	-.352**	-.311**	-0.029	-.315**	-0.052	0.039	-.305**	-0.008	.263**	.555**	.246**	.261**	.232**	0.059	-0.070
3. Empathic Concern			1	.450**	0.074	.576**	0.035	0.082	.299**	0.046	-0.029	-.168*	-0.116	-.213**	-.309**	-.281**	-0.109
4. Perspective Taking				1	0.079	.546**	.299**	-.356**	.402**	0.077	-0.046	-.187*	-.281**	-.171*	-.229**	-.221**	0.014
5. Extraversion					1	0.019	.266**	-.355**	.174*	.211**	0.058	-0.069	0.016	.447**	-0.148	-.251**	-0.040
6. Agreeableness						1	.262**	-.212**	.216**	0.059	-0.054	-.248**	-.504**	-.305**	-.311**	-.236**	0.073
7. Conscientiousness							1	-.400**	0.129	0.109	0.072	-0.013	-.225**	0.149	-0.072	-0.053	.163*
8. Negative Emotionality								1	-0.065	-.259**	0.097	0.104	.432**	-.187*	0.061	0.138	-0.144
9. Openness									1	0.101	-.163*	-.237**	-0.075	-0.068	-0.085	-0.070	0.032
10. Sense of Power										1	-0.008	-0.056	-0.090	.278**	-.163*	-.196*	-0.081
11. Benevolent Sexism											1	.448**	.253**	.240**	-0.102	-.168*	-0.083
12. Hostile Sexism												1	.425**	.279**	.192*	-0.090	-0.097
13. Aggression													1	.233**	0.092	0.020	-.247**
14. Need for Power														1	0.017	-0.116	-0.052
15. Animalistic Dehumanisation															1	.674**	0.075
16. Mechanistic Dehumanisation																1	0.121
17. Age																	1

\* correlation significant at the 0.05 level

\*\* correlation significant at the 0.01 level

with the recommendations of Tabachnick and Fidell (2007). While such an approach may appear non-rigorous, it should be recalled that testing for normality is less important in large samples (Field, 2018), and that violations of linearity and homoscedasticity do not actually invalidate regression analyses (instead weakening them; Tabachnick & Fidell, 2007). Inspection of residuals indicated that these assumptions were met. In addition, inspection of variance inflation factors (VIFs) indicated an absence of multicollinearity between predictors. In accordance with the recommendations of Pandey and Elliott (2010), all predictor variables were included in the regression regardless of zero-order significance. This procedure helps to prevent models which are overly sample-specific, or which underestimate the variance explained by any one independent variable.

Table 2 shows the results of a regression predicting behavioural objectification with all main variables included. Table 3 shows the results of a regression predicting attitudinal objectification with all main variables included.

Notice that hostile sexism explained a significant amount of unique variance for both attitudinal ( $p < .000$ ) and behavioural ( $p = .012$ ) objectification. In the case of attitudinal, but not behavioural, objectification, affective empathy also explained a significant amount of unique variance ( $p = .033$ ). Adjusted  $R^2$  values indicated that the main variables were able to explain 35.2% of variance in attitudinal objectification, and 20.2% of variance in behavioural objectification. Inspection of squared semi-partial correlations indicated that, in the case of behavioural objectification, hostile sexism uniquely explained 3.2% of variance. In the case of attitudinal objectification, affective empathy uniquely explained 1.8% of variance while hostile sexism uniquely explained 13.8% of variance.

**Table 2***Predictors of Behavioural Objectification*

Source	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	<i>p</i>
Empathy (Affective)	-.010	.008	-.115	-1.179	.240
Empathy (Cognitive)	-.008	.008	-.097	-.981	.328
Extraversion	.064	.045	.126	1.415	.159
Agreeableness	.031	.061	.057	.510	.611
Conscientiousness	-.072	.040	-.146	-1.790	.075
Negative Emotionality	-.005	.041	-.012	-.117	.907
Openness	-.050	.044	-.093	-1.141	.256
Sense of Power	.039	.036	.083	1.084	.280
Benevolent Sexism	-.037	.046	-.066	-.808	.420
Hostile Sexism	.123	.048	.227	2.555	.012
Aggression	.092	.060	.154	1.528	.129
Need for Power	.073	.043	.156	1.686	.094
Age	.006	.004	.114	1.540	.126

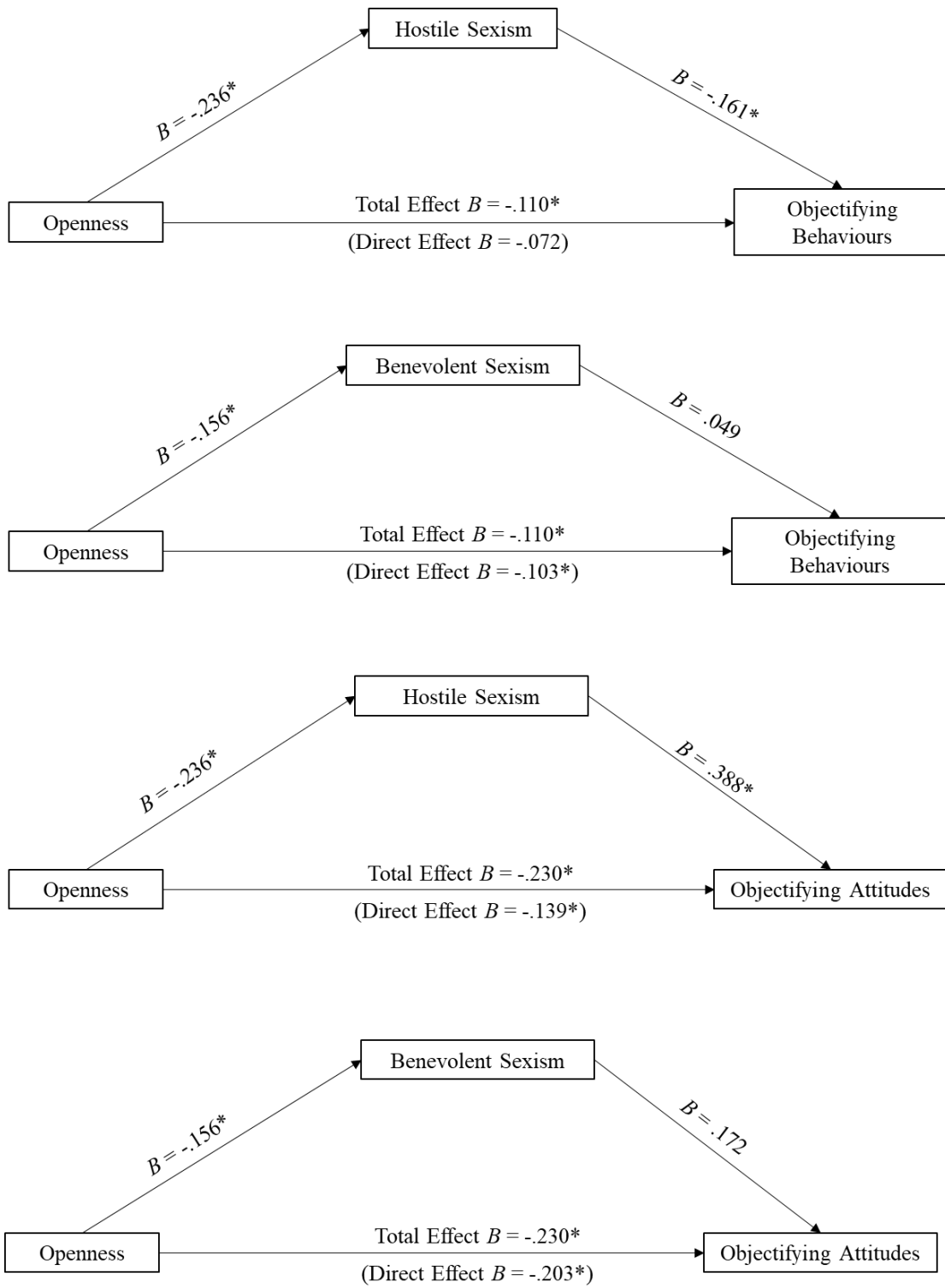
**Table 3***Predictors of Attitudinal Objectification*

Source	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	<i>p</i>
Empathy (Affective)	-.022	.010	-.188	-2.147	.033
Empathy (Cognitive)	-.010	.010	-.094	-1.054	.294
Extraversion	.007	.056	.010	.126	.900
Agreeableness	-.016	.077	-.021	-.211	.833
Conscientiousness	-.012	.050	-.018	-.242	.809
Negative Emotionality	-.010	.052	-.017	-.187	.852
Openness	-.069	.055	-.091	-1.241	.217
Sense of Power	.012	.045	.019	.270	.787
Benevolent Sexism	.018	.057	.023	.318	.751
Hostile Sexism	.358	.061	.472	5.902	.000
Aggression	-.037	.076	-.045	-.494	.622
Need for Power	.034	.054	.053	.633	.528
Age	-.003	.005	-.043	-.644	.520

**Hypothesis 3: Sexism as a Mediator of the Openness-Objectification Relationship**

To test whether sexism mediates the relationship between openness and sexual objectification (Hypothesis 3), bootstrapping was employed using Hayes' (2017) PROCESS Macro 3.5 (Model 4) for SPSS (5000 samples). Four possible scenarios were assessed, each with openness as a predictor, either benevolent or hostile sexism as a mediator, and either behavioural or attitudinal objectification as an outcome variable. These scenarios are represented in Figure 1. The total effect (TE;  $B = -.1104, p = .0089$ ) for openness on behavioural objectification became non-significant with the inclusion of hostile sexism (direct effect [DE];  $B = -.0723, p = .0808$ ), suggesting mediation of openness through hostile sexism. The indirect effect of openness on behavioural objectification was small, though statistically significant ( $B = -.0381, CI_{95\%} (-.0766, -.0115)$ ). Similarly, the direct effect of openness reduced after the inclusion of benevolent sexism (DE;  $B = -.1027, p = .0161$ ). However, this small reduction did not correspond to a significant indirect effect through benevolent sexism ( $B = -.0077, CI_{95\%} (-.0256, .0036)$ ). This was unsurprising given that benevolent sexism did not demonstrate a significant relationship with behavioural objectification (see Table 1).

The total effect (TE;  $B = -.2301, p = .0001$ ) for openness on attitudinal objectification showed a slight reduction with the inclusion of hostile sexism (DE;  $B = -.1385, p = .0060$ ), suggesting mediation of openness through hostile sexism. The indirect effect of openness on attitudinal objectification was small, though statistically significant ( $B = -.0916, CI_{95\%} (-.1571, -.0348)$ ). Similarly, the direct effect of openness on attitudinal objectification reduced after inclusion of benevolent sexism (DE;  $B = -.2031, p = .0001$ ). However, as in the case of behavioural objectification, the indirect effect of openness through benevolent sexism was non-significant ( $B = -.0270, CI_{95\%} (-.0592, .0007)$ ). These results suggest that hostile sexism, but not



**Figure 1**

*Sexism Mediation of Openness-Objectification Relationships*



benevolent sexism, mediates the relationship between openness and sexual objectification, providing partial support for Hypothesis 3.

### **Testing Aim 3 (Part 1): Exploring the Relationship Between Dehumanisation and Sexual Objectification**

To explore the relationship between dehumanisation and objectification, two regressions were conducted. Each regression had animalistic and mechanistic dehumanisation as predictor variables, and one form of sexual objectification as a dependent variable. Animalistic dehumanisation was included despite showing no significant zero-order correlations with sexual objectification, in accordance with similar instances in previous regressions. For each regression, P-P plots were inspected to confirm normal distribution of the residuals, and a scatterplot of residuals was used to assess linearity and homoscedasticity. Both behavioural and attitudinal regressions adequately satisfied these assumptions, and VIF values indicated that multicollinearity was not present in either case.

Results appear in Tables 4 and 5. Animalistic dehumanisation was a significant predictor of both behavioural and attitudinal objectification. Mechanistic dehumanisation was significant only in the case of behavioural objectification. For both behavioural and attitudinal objectification, their relationship with each type of dehumanisation have different signs but are of comparable strength. It appears that the presence of mechanistic dehumanisation has, in effect, unsuppressed a strong relationship between animalistic dehumanisation and sexual objectification. Since mechanistic dehumanisation showed near-zero non-significant correlations with each form of objectification (see Table 1), but has a significant negative weight in each regression, this represents *classic suppression* (Pandey & Elliott, 2010). In order to tease out the nature of this suppression effect, subsequent analyses were conducted (see below). Adjusted  $R^2$

values indicate together dehumanisation facets explained 8.5% of unique variance in behavioural objectification, and 6.0% of unique variance in attitudinal objectification.

**Table 4**

*Differentiating between Dehumanisation predictors of Behavioural Objectification*

Source	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	<i>p</i>
(Constant)	1.297	0.138		9.404	0.000
Animalistic Dehumanisation	0.297	0.072	0.419	4.133	0.000
Mechanistic Dehumanisation	-0.202	0.067	-0.305	-3.004	0.003

**Table 5**

*Differentiating between Dehumanisation predictors of Attitudinal Objectification*

Source	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	<i>p</i>
(Constant)	1.268	0.195		6.509	0.000
Animalistic Dehumanisation	0.349	0.102	0.353	3.431	0.001
Mechanistic Dehumanisation	-0.165	0.095	-0.179	-1.740	0.084

### ***Subsequent Analysis: Exploring the Suppression Effect***

As in Thompson and Levine (1997), a suppression effect may indicate an interaction effect between the two independent variables, in this case mechanistic and animalistic dehumanisation. Hayes' (2017) PROCESS Macro (Model 1, 5000 samples) was used to assess this possibility. There was no evidence that mechanistic dehumanisation moderated the relationship between animalistic dehumanisation and sexual objectification. In an attempt to aid discernment of the exact nature of the suppression effect, dehumanisation was assessed visually.

Inspection of dehumanisation histograms, and a scatterplot which included both dimensions of dehumanisation revealed no obvious pattern.

### **Testing Aim 3 (Part 2): The Moderating Role of Sexism in the Dehumanisation-Objectification Relationship**

Aim 3 was also concerned with the potential role of sexism as a moderator of the dehumanisation-objectification relationship. To that end, moderation analyses were conducted using PROCESS (Model 1) for SPSS (5000 samples).

There was no evidence that hostile sexism moderated the relationship between animalistic dehumanisation and either attitudinal objectification [ $B = -.0582$ , 95% C.I.  $(-.2207, .1043)$ ,  $p = .4807$ ] or behavioural objectification [ $B = .0227$ , 95% C.I.  $(-.1097, .1551)$ ,  $p = .0227$ ]. Similarly, there was no evidence that hostile sexism moderated the relationship between mechanistic dehumanisation and either attitudinal objectification [ $B = -.0123$ , 95% C.I.  $(-.1624, .1377)$ ,  $p = .8713$ ] or behavioural objectification [ $B = -.0889$ , 95% C.I.  $(-.2114, .0337)$ ,  $p = .1542$ ].

There was no evidence that benevolent sexism moderated the relationship between animalistic dehumanisation and either attitudinal objectification [ $B = .0106$ , 95% C.I.  $(-.2022, .2235)$ ,  $p = .0988$ ] or behavioural objectification [ $B = .0279$ , 95% C.I.  $(-.1311, .1868)$ ,  $p = .7295$ ]. Similarly, there was no evidence that benevolent sexism moderated the relationship between mechanistic dehumanisation and either attitudinal objectification [ $B = .0542$ , 95% C.I.  $(-.1338, .2422)$ ,  $p = .5700$ ] or behavioural objectification [ $B = -.0190$ , 95% C.I.  $(-.1589, .1208)$ ,  $p = .7886$ ].

## Discussion

### Sexism

The associations predicted by Hypotheses 1 and 2 were partially supported (see Table 1). Hostile sexism showed a moderate positive association with attitudinal objectification and a weak positive association with behavioural objectification. A similar pattern emerged for benevolent sexism, which demonstrated a weak correlation with attitudinal objectification, and a non-significant correlation with behavioural objectification. The reduced effect of sexism on behavioural objectification may reflect a genuine difference between objectifying behaviours and attitudes, which showed only a moderate association (see Table 1). However, these differences may also be due to the differential effects of impression management, which may have more substantially affected behavioural self-reports over attitudinal self-reports. Regardless, these results seem to suggest that hostile sexism has a stronger relationship with sexual objectification than benevolent sexism.

Results also indicated that hostile sexism explained a significant amount of unique variance in predicting both attitudinal and behavioural objectification, underscoring the primacy of the connection between hostile sexism and objectification. This is consistent with Compton (2016) who found that hostile sexism, and not benevolent sexism, predicted men's leering at women. This likely reflects the fact that hostile sexism offers both hostile and pleasure-based motivations for treating women as sex objects. Hostile motivations to objectify arise from the paternalistic nature of sexism, since objectification represents a means by which men can perpetuate their power over women. In addition, notions of competitive gender differentiation embedded within hostile sexism may enable sexist men to more comfortably reduce a woman to the status of sexual object, since they view women as fundamentally different from men. This is

supported by the results of DeGue and DiLillo (2004), who found that perpetrators of non-physical sexual coercion (an objectifying behaviour that denies subjectivity) perceived male-female relationships as inherently adversarial, and had greater hostility towards women than non-offenders. Pleasure based motives to objectify likely result from notions of heterosexuality embedded in sexism – from the perspective of the man, women offer a unique opportunity for pleasure, and through objectification, men are able to attain this pleasure without surrendering their power over women.

### **Sense of Power**

Contrary to the expectation of Hypothesis 1, possessing a sense of power over women was not related to sexually objectifying behaviours or attitudes. Recall that this measure of power was defined with particular emphasis on ability to successfully influence others and achieve personally desired outcomes over others' interests. Consider the seemingly contradictory experimental work of Gruenfeld, Inesi, Magee, and Galinsky (2008) who found that men in high power conditions were more likely to approach women when primed with a sex goal. In this paradigm, objectification was operationalised as approach behaviour, and power was conceived within a boss-subordinate paradigm. It may be that possessing institutionally sanctioned power (as in a boss-subordinate paradigm) promotes instrumentality in a different way than possession of social power (the paradigm employed in the present study). It is also possible that having a sense of social power over women may simply reflect an awareness of patriarchal power dynamics prevalent in Australian culture, which need not entail hostile motive towards women. This interpretation is supported by the lack of any statistically significant relationships between sense of power and either benevolent or hostile sexism (see Table 1). Alternatively, it may be that approach tendencies in high power conditions demonstrated by Gruenfeld, Inesi, Magee, and

Galinsky (2008) reflect increased confidence (rather than increased objectification). However, such an explanation does not hold for Xiao, Li, Zheng, and Wang (2019), who found objectifying cognitive processes were more prevalent in high social power conditions compared to low power conditions. However, this may reflect cultural differences as their sample consisted of Chinese participants. My results suggest possible avenues for future research, in particular, investigation of the effects of experimental manipulation of social power on sexual objectification in both approach and cognitive processing paradigms in Western samples.

### **Need for Power**

In contrast to findings around sense of power, the present study found a weak-to-moderate relationship between a desire to have power over others and sexual objectification perpetration. This relationship was stronger with objectifying behaviours than attitudes, which may suggest that desiring power acts as a strong motivator to act on objectifying attitudes (and may also motivate individuals to adopt these attitudes). Recall that in this measure, power was defined with particular emphasis on external sanctions or positions (rather than social power). These results suggest that men with a desire to obtain unfettered power over others likely use objectification of women in an attempt to quench that desire. Studies have demonstrated that gaining the capacity to influence others does not satisfy a desire for power, however gaining autonomy does (Lammers, Stoker, Rink, & Galinsky, 2016). This is consistent with the results of the present study, which found a significant (weak) positive relationship between sense of social power and desire for power, suggesting that attaining influence does not necessarily quench a desire for power. If, as my results suggest, men are objectifying women in an attempt to satisfy their need for power, then it seems likely that interventions aimed at helping men to realise their autonomy may passively encourage men to reduce their objectifying behaviours.

## **Aggression**

My data showed a weak correlation between aggression and sexually objectifying attitudes and behaviours. This is consistent with the work of Vasquez, Osinnowo, Pina, Ball, and Bell (2017) whose exploratory work found that objectifying attitudes (measured by assessing agreement with three attitude-based statements) were related to trait aggression. The present study extends this research through the use of a validated measure of sexual objectification, and through the inclusion of a self-report measure of objectifying behaviours. The observed connection between aggression and objectifying attitudes and behaviours makes intuitive sense. In particular, it may be that more aggressive men practice objectification in order to facilitate an aggressive outlet, since objectified women may not be met with the same concern as non-objectified persons. This is supported by the work of Loughnan, et al. (2010) which found that objectification (operationalised as exposed body skin) decreased moral concern for the target (i.e. men were less concerned about objectified women being harmed). However, not all studies have supported this finding (see dehumanisation discussion below).

An alternative explanation for the aggression-objectification relationship is suggested by excitation transfer models of aggression. These models posit that increased aggression is the result of cognitive incapacitation induced by high levels of arousal, and that, consequently, aggressive individuals are more likely to behave impulsively (Zillmann, 1988). This is supported by the fact that the Aggression Questionnaire (the long form of the BAQ employed in the present study) shows modest correlations with impulsivity (Buss & Perry, 1992). It is plausible, therefore, that the relationship between aggression and objectification is partially explained by a connection to impulsivity. Regardless, the results of the present study suggest that objectification

interventions may profit from aggression interventions, especially since cognitive techniques which increase impulse control would generalise beyond aggression (to objectification).

### **Empathy**

As anticipated by Hypothesis 2, both affective and cognitive empathy demonstrated significant negative relationships with objectifying attitudes and behaviours. That is, the more strongly men held objectifying attitudes, or the more frequently they perpetrated objectifying behaviours, the lower they were likely to score on perspective taking and empathic concern. My results also showed that effective empathy (empathic concern) explained unique variance in the prediction of attitudinal, but not behavioural, objectification. Overall, empathy associations were strongest with objectifying attitudes (not behaviours), which may indicate that increased impression management was operating on socially unacceptable behaviours. Alternatively, this may reflect the fact that some men with sexually objectifying attitudes do not follow through with behaviours. A meta-analysis by Wallace, Paulson, Lord, and Bond (2005) determined that the presence of constraints, such as social pressure or perceived difficulty in implementing a behaviour, moderate the otherwise strong relationship between attitudes and behaviours. Therefore, it may be that social pressure, or the possibility of social backlash, acts to inhibit the behavioural expression of objectifying attitudes. In fact, the only variables for which associations with behavioural objectification were stronger than attitudinal objectification were aggression and desire for power. This may suggest that these variables act to promote anti-social behaviour, which makes sense given that aggression and the exercising of power can both implicate acting in ways which diverge from socially sanctioned behaviour (and thus, such individuals will be more likely to practice their objectifying attitudes). Overall, these results harmonise with



previous research which demonstrated generalised empathy deficits in those who objectify women (Costello, Watts, Murphy, and Lilienfeld, 2019).

A relationship with reduced empathic concern suggests that men who have difficulty feeling concern and compassion for women are less averse to acting in ways that make women uncomfortable or distressed. Similarly, the relationship with reduced perspective taking suggests that men who have difficulty understanding the perspective of objectified women are more likely to continue to objectify them. Together, these findings suggest that men objectify women more when they are disconnected from the way that objectification makes women feel. This suggests that interventions designed to increase empathy for objectified women may help to reduce objectification perpetration. Activities designed to increase empathy for victims are commonplace in sexual offence interventions (Marshall, 1999), and focus on building both victim-specific and generalised empathy (Day, Casey, & Gerace, 2010). Future research should consider the relationship between victim-specific empathy and sexual objectification, in order to inform the development of possible empathy-based objectification interventions.

### **Personality**

Recall that negative relationships were anticipated between objectification and each of agreeableness, openness and conscientiousness (Hypothesis 2). My data showed partial support for this hypothesis, with significant objectification associations emerging for agreeableness and openness, but not conscientiousness. Both of these relationships were weak and negative (as expected), and stronger for attitudinal objectification than behavioural objectification. Recall that previous researchers hypothesised that low openness predicted an endorsement of traditional gender roles. The present study provides some support for this theory in that both benevolent and hostile sexism were significantly associated with low openness (Table 1), consistent with the

results of Hellmer, Stenson, and Jylhä (2018). Sexist attitudes can be thought of as a proxy for gender role endorsement to the extent that sexism includes notions of gender differentiation, be it competitive (hostile sexism) or complementary (benevolent sexism). BFI-2 openness includes the facet *intellectual curiosity*, which encompasses an interest in engaging with a variety of ideas and thinking things through thoroughly, *aesthetic sensitivity*, which encompasses an interest in art and beauty, and *creative imagination*, which encompasses imagination and originality (Soto & John, 2017b).

Recall that Hypothesis 3 predicted that sexism would mediate the relationship between openness and objectification. This hypothesis was partially supported, with evidence suggesting that hostile sexism (but not benevolent sexism) mediated the relationship between openness and sexual objectification. However, this effect was small, accounting for approximately one third of the total relationship between openness and objectification. Therefore, it is also evident that openness is associated with objectification above and beyond its connection to sexism. This may be due to the fact that sexism does not capture all elements of gender role adherence, or it may suggest that openness impacts objectification in an unrelated way. In particular, there is some evidence to suggest that individuals who are high on openness are more likely to think critically about ideas that they encounter (Bidjerano & Dai, 2007). Therefore, it may be that those with high openness respond critically when they encounter socio-cultural encouragement to adopt objectifying behaviours (e.g. through the media or interpersonal encounters). Conversely, it may be that men with low openness are less likely to critically assess the merits and consequences of objectifying behaviours and attitudes, and thus are more likely to adopt them. Note that this discussion does not suggest that intelligence relates to reduced objectification, but rather curiosity and openness to new ideas.

It is particularly interesting that conscientiousness was not related to objectification, as Costello, Watts, Murphy, and Lilienfeld (2019) previously reported a significant moderate relationship between conscientiousness and both objectifying behaviours and attitudes. In fact, my results indicated that, had no relationship existed between conscientiousness and attitudinal objectification, there was a 50% chance of observing the relationship found in the present sample. While it should be noted that the HEXACO Personality Inventory's measure of conscientiousness (employed by Costello et al., 2019) accounts for at least 64% of the variance in the conscientiousness scale of the BFI-2 (used in the present study; Ashton, Lee, and Visser, 2019), it is still possible that these diverging results reflect different operationalisations of conscientiousness. In particular, scoring low on HEXACO-conscientiousness reflects poor self-discipline and poor impulse control (Lee & Ashton, 2004), while scoring low on BFI-2-conscientiousness reflects low interpersonal reliability (Soto & John, 2017b). Both scales capture a tendency to work hard (HEXACO Diligence, BFI-2 Productiveness) and seek order (Organisation), which may account for the significant amount of shared variance between the measures. Consequently, my results may suggest that the conscientiousness-objectification relationship demonstrated by Costello, Watts, Murphy and Lilienfeld (2019) reflects a connection to impulse control, rather than the organisation or work ethic components of conscientiousness. This makes intuitive sense for the behavioural component of objectification, as one might expect men with higher impulse control to prevent hostile or sexually motivated objectification from manifesting externally (recall the previous discussion of aggression).

Given that BFI-2 conscientiousness relates to hedonistic tendencies (Soto & John, 2017b), this may suggest that men in my sample were driven by power motives, rather than sexual pleasure motives. However, this supposition is limited by the fact that hedonism reflects a

desire for a variety of sensual pleasures (not just sexual), which increases the already moderate degrees of separation between a sexual pleasure focus and conscientiousness.

The relationship between low agreeableness and increased objectifying behaviours and attitudes is perhaps the most intuitive. Recall that individuals who are low on agreeableness show reduced emotional concern for the wellbeing, desires, and rights of others. It makes sense, therefore, that these individuals would have few qualms about objectifying women for their own pleasure. In addition, individuals who are low on agreeableness are less likely to regard others in a positive light (Soto & John, 2017b). This low interpersonal trust likely explains why agreeableness has a significant negative association with hostile sexism but no association with benevolent sexism (see Table 1). Overall, these results suggest that men who regard women with little trust, respect, or concern have fewer misgivings about objectifying them. It would be of interest to future research to determine if individuals low on agreeableness are more likely to non-sexually objectify people, or if such a relationship only exists for sexual objectification and only for female targets.

The present study's findings on agreeableness accord with the work of (Costello, Watts, Murphy, & Lilienfeld, 2019), and suggest a common link amongst sexually objectifying behaviours. Previous research has found that low agreeableness is common to sexual harassment, gender harassment, sexual coercion, and giving unwanted sexual attention (Ménard, Shoss, & Pincus, 2010). This common thread likely reflects the fact that low agreeableness indicates an increased comfort level in acting in socially deviant ways. Notice, however, that all of these behaviours involve sexual objectification (incorporating at least the elements of instrumentality, denial of autonomy, inertness, violability and denial of subjectivity). Therefore, it would be of

interest to future research to determine if agreeableness predicts broad sexual deviance above and beyond the presence of objectification.

### **Dehumanisation**

Recall Aim 3 of the present study was to explore the dehumanisation-objectification relationship and the potential moderating effect of sexism on that relationship. In particular, the present study was concerned with assessing Morris and Goldenberg's (2015) paradigm which suggested that sexual objectification is primarily related to animalistic dehumanisation. Results showed a small positive association between animalistic dehumanisation and sexual objectification, and no significant relationship between objectification and mechanistic dehumanisation (Table 1), both of which are consistent with Morris and Goldenberg's paradigm. Thus, despite the fact that mechanistic dehumanisation and objectification can co-occur (as they did in general in my sample) this did not appear to be the case for those men who sexually objectified women. This finding was strengthened by linear models which showed that mechanistic dehumanisation acted as a classic suppressor of the objectification-animalistic dehumanisation relationship. That is, the presence of mechanistic dehumanisation increased the predictive power of animalistic dehumanisation. This observation reflects the fact that mechanistic dehumanisation accounts for objectification-irrelevant variance in animalistic dehumanisation but is not itself related to sexual objectification. The exact nature of this variance is unclear, particularly since follow up tests revealed that mechanistic dehumanisation was not acting as a moderator. One possibility is that the inclusion of mechanistic dehumanisation accounted for those individuals who completed the survey rapidly by selecting responses in the same position without reading them. Thus, there would in effect be two groups created in the regression, one whose average mechanistic and animalistic dehumanisation scores were

identical, and one with those who showed differing values. Therefore, one might expect that the increased regression weight for animalistic dehumanisation reflects the increased predictive accuracy obtained by removing erroneous measurement variance. Such a possibility could be investigated by including check variables (e.g. reverse coded or repeated items) in future surveys to capture non-legitimate responses.

The relationship between animalistic dehumanisation and sexual objectification suggests that men who sexually objectify women also deny women uniquely human traits, which are those involving ‘rationality, morality and higher order cognitive-functioning’ (Morris & Goldenberg, 2015). Thus, while such men are not denying that women are capable of exerting agency and experiencing emotion, they instead see women as unrefined and driven by instinctual motives (Morris & Goldenberg, 2015). That is, women are being likened to animals more so than inanimate objects. The positive association between objectification and dehumanisation may therefore suggest that, for some men, sexual objectification itself entails likening women to animals, more so than objects. Notice that this is consistent with Nussbaum’s conceptualising, since a denial of subjectivity (mechanistic dehumanisation) need not be present in all forms of objectification. Interestingly however, my results also suggested that men who sexually objectified and/or animalistically dehumanised women were likely to have lower empathy (see Table 1). This may mean that, despite recognising that women possess the capacity for experience and emotion (as animals do), men who objectify women are unconcerned with the emotions these women experience. This explanation is supported by Wollast, Puvia, Bernard, Tevichapong, and Klein (2018) who found that men were willing to inflict larger levels of pain to objectified, rather than non-objectified, targets. This may also suggest that studies which found an association between sexual objectification and reduced moral concern may have been

confounded by the empathy levels of participants, which are not accounted for in an experimental design.

The present study was unable to shed light on the apparent inconsistencies in the relationship between sexual objectification and ascription of subjectivity. It is still possible that the influence of contextual or motivational factors alters the relationship between sexual objectification and moral concern/perceived subjectivity. However, the present study did not produce any evidence that sexism acted as such a motivational factor. That is, there was no evidence that sexism moderated the relationships between objectification and either animalistic or mechanistic dehumanisation. It should also be noted that non-interpersonal objectification paradigms are limited by the fact that objectification is usually constructed through the use of skin exposure. Recent research suggests that posture, and not skin exposure, is responsible for inducing cognitive objectification (Bernard, et al., 2019). It is therefore possible that differing results are due to inconsistencies in the posture of female targets that are presented to participants. It is also possible that the apparent distinction between appearance-focussed and sexual objectification is actually related to posture differences. As measures of interpersonal objectification do not share this limitation, interpersonal objectification represents an important means of teasing out the full dehumanisation-objectification relationship. Future experimental work linking dehumanisation and objectification should seek to operate within an interpersonal paradigm wherever possible and take care when drawing a distinction between attitudinal and sexual objectification.

### **Limitations**

Regression models in the present study accounted for relatively low levels of variance in the prediction of objectification (35.2% for attitudinal objectification, 20.2% for behavioural

objectification). This suggests that other trait- or state-level variables may better account for individual differences in objectification perpetration. Alternatively, it may be that contextual factors, such as mood, account for greater levels of variance in objectification perpetration than trait-level variables.

These results are limited by the fact that a self-report design was utilised to capture participant data. Consequently, it is likely that participants were implementing a level of socially desirable responding, which may have skewed the data. Future research could address this limitation by recording actual instances of objectifying behaviour (through observation or experimentation), or through the use of social desirability check scales.

Given that the majority of participants were undergraduate students (or student aged), it is possible that my results will not generalise to the wider public. In particular, the interaction between sexism and age may limit the generalisability of the present study. Glick and Fiske (1996) note that adolescents tend to have greater harmony in their levels of benevolent and hostile sexism, while older men often show greater divergence (that is, less ambivalence). Therefore, it is possible that benevolent sexism only showed a significant association with objectification due to shared variance with hostile sexism. This is supported by the fact that benevolent sexism was not a significant predictor in any sexual objectification model. This would explain why benevolent sexism showed a weaker association with objectification (than hostile sexism did) within my sample. Future research is required on samples with greater age variability to verify the generalisability of the present study's findings.

My exploration of dehumanisation is limited by the fact that I was unable to measure appearance-focussed objectification within an interpersonal paradigm, and thus was unable to determine shared variance of appearance-focussed objectification and sexual objectification in



predicting dehumanisation. That is, I cannot say for certain whether it is objectification broadly or sexual objectification specifically that is related to animalistic dehumanisation. However, it should also be noted that the use of an interpersonal measure of sexual objectification, rather than the use of a skin-exposure paradigm, represents a key strength of the present study, since skin-exposure operationalisations of sexual objectification are contested (see previous dehumanisation discussion).

Another key strength of the present study was the intentional use of heterosexual participants. Many previous studies have failed to document the sexual orientation of male participants when assessing sexual objectification of women. However, sexual pleasure motivations for objectification assume a heterosexual interest in the target. In addition, notions of heterosexuality embedded in sexism (which were suggested to partially explain the connection between sexual objectification and sexism) are unlikely to reflect the beliefs of homosexual men. While this does limit the generalisability of these results to heterosexual men, it means there can be greater confidence in role of sexism in sexual objectification.

Finally, the nature of cross-sectional research means that I was unable to definitively determine the presence or direction of causation amongst associated variables. For example, it may be the case that sexist attitudes predispose people to objectify women (as assumed in this paper). However, it may also be the case that objectification of women facilitates the development of sexist attitudes. In general, these causations may be elucidated through the use of longitudinal research.

## **Conclusion**

To date, there has been little research focussed on determining the traits associated with sexually objectifying behaviours and attitudes in heterosexual men. The present study suggests

that hostile sexism is the strongest predictor of perpetrating sexually objectifying behaviours and attitudes amongst heterosexual Australian men. Interventions aimed at reducing aggression, increasing empathy, building autonomy, and challenging sexist beliefs may hold promise in decreasing men's objectification perpetration. This study has also extended previous findings on the dehumanisation-objectification relationship to the interpersonal domain and determined that likening women to animals is associated with a proclivity to sexually objectify them through behaviours and attitudes.

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