ORIGINAL ARTICLE



The ESS-R: An Enjoyment of Sexualization Scale for Diverse Populations

Beth A. Visser¹ · Emily R. Stiner² · Liam A. Doyle³

Accepted: 11 March 2022 / Published online: 4 April 2022 © The Author(s), under exclusive licence to Springer Science+Business Media, LLC, part of Springer Nature 2022

Abstract

We modified Liss and colleagues' Enjoyment of Sexualization Scale (ESS) to be suitable for samples that include individuals of varied gender identities and sexual orientations (ESS-R). In two undergraduate samples (Ns = 294 and 527), we found that enjoyment of sexualization (ES) was distinct from but related to self-objectification (SO) in both men and women. As in previous research, men and women reported similar levels of ES, but women reported higher levels of self-objectification. The ESS-R yielded a single factor structure for both men and women, although multiple-groups confirmatory factor analysis suggested that only 4 of the 8 items were invariant across gender. SO, but not ES, was found to positively predict disordered eating attitudes, appearance anxiety, and desire to have a different body size. Finally, with regard to HEXACO personality, ES was associated with low Honesty-Humility and high eXtraversion, whereas SO was associated with high Emotionality and low Honesty-Humility, eXtraversion, Agreeableness, and Openness to Experience. Findings from the two studies indicate that (a) ES is relevant to both men and women, (b) ES and SO have distinct personality correlates, and (c) ES is associated with less damaging outcomes than SO.

Keywords Enjoyment of sexualization \cdot Self-objectification \cdot Personality \cdot Gender \cdot HEXACO

Beth A. Visser beth.visser@lakeheadu.ca

¹ Lakehead University, 500 University Ave., Orillia, ON L3V 0B9, Canada

² Trent University, Peterborough, ON, Canada

³ Brock University, St. Catharines, ON, Canada

Introduction

In 2011, Liss et al. developed and validated the Enjoyment of Sexualization scale (ESS) with women-only samples. Subsequently, Visser et al. (2014) developed an equivalent version for men. The authors deleted one of the eight items after determining that the men's version of the item (I feel complimented when women "check me out" as I walk past) was not equivalent to the women's version (I feel complimented when men whistle at me). In general, however, Visser et al. found that men and women reported similar levels of enjoyment of sexualization (ES). Further, the factor structure of the scale and the Big Five personality and behavioral correlates were similar across genders. One limitation of this study was that Visser et al.'s ESS for men focused on sexualized attention from women. Thus, separate scales were required for men and women, and the scales were inappropriate for anyone who was not heterosexual. In this study, we report on a revised version of the ESS that is applicable to individuals of any gender who are attracted to men or women and, with our revised wording suggestion, people who are attracted to individuals with any gender identity. Note that this new scale measures enjoyment of sexualized attention from individuals of a gender one is attracted to, whereas Liss et al. were specifically concerned with the male gaze.

Sexualization and Self-Objectification

At the 2020 Tokyo Olympics, the German women's gymnastics team wore full-body unitards (as opposed to the traditional high-cut leotard) in what the German Gymnastics Federation described as a move against the sexualization of female gymnasts (Wright & McCluskey, 2021). Similarly, the Norwegian women's beach handball team wore shorts in protest of mandatory bikinis at a 2021 tournament, resulting in a fine of 1,500 euros (Radnofsky, 2021). These protests by female athletes at the sexualization of their bodies have furthered the ongoing discussion about the sexualization of girls and women.

It has now been more than 15 years since the American Psychological Association (APA) formed the Task Force on the Sexualization of Girls in 2005. In their report (APA Task Force on the Sexualization of Girls, 2007), the Task Force stated that sexualization occurs when:

a person's value comes only from his or her sexual appeal or behavior, to the exclusion of other characteristics; a person is held to a standard that equates physical attractiveness (narrowly defined) with being sexy; a person is sexually objectified—that is, made into a thing for others' sexual use, rather than seen as a person with capacity for independent action and decision making; and/or sexuality is inappropriately imposed upon a person. (p. 1).

Each of these four conditions are indicative of sexualization. Instances of sexualization can be found in a wide variety of contexts, including interpersonal interactions (Lindberg et al., 2007), cultural norms (Loughnan et al., 2015; Nelson, 2000),

and multimedia (Lampman et al., 2002; Stankiewicz & Rosseli, 2008; Ward, 2003). Ultimately, the Task Force concluded that sexualization was an issue of particular importance given the damaging implications of the phenomenon.

One implication of widespread sexualization of women that has received a great deal of research attention is self-objectification (SO). SO occurs when a person who is subjected to widespread sexualizing messages internalizes these attitudes and comes to objectify themselves (Fredrickson & Roberts, 1998). SO has been associated negatively with self-esteem (Choma et al., 2010), and positively with anxiety (Grower et al., 2021), hostility (Grower et al., 2021), and disrupted cognition (Fredrickson et al., 1998; Gay & Castano, 2010). While SO may have detrimental effects for both men and women, there is some evidence to suggest that certain effects of SO may be gendered. Using an experimental design, Gay and Castano (2010) reported that a high objectification condition (being videorecorded by a man versus a woman) was associated with a slower response time on a Letter Number Sequencing task in women who reported high levels of trait SO. Thus, it may be the case that women who chronically self-objectify are more vulnerable to the negative consequences of highly objectifying situations.

Enjoyment of Sexualization

While the Task Force recognized the harmful effects of sexualization on girls and women, some have argued that embracing sexualized attention is a feminist behavior (e.g., Attwood, 2007). However, a sample of 317 female heterosexual self-identified feminists reported lower mean levels of ES than other female samples (Erchull & Liss, 2013a, 2013b). Within the feminist sample, the women who reported higher levels of ES scored lower on a measure of radical/socialist feminism. That being said, there is some evidence that sexualized attention may lead to positive affect and perceived empowerment for women (Peterson, 2010). For instance, Breines et al. (2008) found that women who had high self-esteem and who valued their appearance as a source of self-esteem experienced a boost in well-being when self-objectifying. While this boost was temporary, this finding provides a potential mechanism for why women may seek to be sexualized by others.

A similar finding by Visser et al. (2014) suggests that ES may not be wholly negative. Visser and colleagues found that ES, unlike SO, was not associated with low self-esteem. However, the authors also found that ES was higher in women who believed themselves to be attractive, leading the authors to suggest that women who enjoy sexualized attention might experience negative consequences if their self-perceived attractiveness diminishes over time. In two studies, ES was negatively correlated with age (Grower et al., 2019; Pellizzer et al., 2016), but both samples consisted of female undergraduate students ($M_{age} = 18.62$ and 19.03 years, respectively), making it unlikely that body changes due to pregnancy, childbirth, or menopause were relevant.

Research by Aubrey et al. (2017) suggests that views on women's ES may differ by gender. In an experimental study, male and female participants watched either self-sexualizing or performance-based videos of the same female musical artists (e.g., Beyonce). Women who liked the artists reported higher levels of ES after watching the self-sexualizing videos, suggesting a state aspect to ES. Men who liked the artists reported higher levels of modern sexism and endorsed a belief that sex is power (i.e., that women use their sexuality to achieve goals) after viewing the self-sexualizing videos. In this study, rather than measuring male participants' ES, men reported the extent to which they believed *women* enjoyed sexualization. Men's belief that women enjoy sexualization was strongly and positively associated with believing that sex is power and that women are sex objects. Further, men's belief that men are sex driven. This finding suggests that whereas women may experience their ES as empowering, men may believe women's ES is diminishing and even manipulative.

Despite a growing body of literature examining the influence and correlates of ES, the majority of studies have focused on samples of predominantly Caucasian, female undergraduate students. There have been few investigations of ES in more diverse samples. Grower et al. (2021) found similar levels of SO (measured as self-surveillance) and ES in Black and white American adolescent girls (M = 15.22 years). Zero-order correlations indicated that both variables were related to higher levels of depression, anxiety, and hostility, but regression analysis results indicated that SO was positively associated with depression and hostility for Black but not white girls. Interactions between ES and race were not significant in predicting depression, anxiety, or hostility, suggesting that ES was similarly harmful to girls of both races.

Another study (Pellizzer et al., 2016) extended the literature by reporting the correlates of ES in two groups: recreational pole dancers and undergraduate women. The group of recreational pole dancers were somewhat older than the students $(M_{age} = 22.97 \text{ and } 19.03 \text{ years}, \text{ respectively})$, but the two samples were similar with regard to ethnicity, education, and body mass index. The two groups did not differ on ES but the students reported higher levels of SO and lower levels of both embodiment (feeling connected with one's body) and positive body image. For both groups, ES was positively related to embodiment. For the recreational pole dancers, ES was also associated with having a positive body image. ES was associated with SO in the pole dancing group (r=0.40) but the correlation was not significant in the student group (r=0.18). Overall, these results suggest that ES may have different associations in different groups and that these associations may sometimes be beneficial.

ES research has generally focused on heterosexual female samples. Erchull and Liss (2015) found that lesbians, unsurprisingly, reported lower levels of ES than did heterosexual women. However, the authors noted that lesbians are frequent recipients of men's sexualized attention and may enjoy it for several reasons, including its function as an indicator of attractiveness, "passing" as heterosexual, and internalization of the western "hot lesbian" stereotype. Erchull and Liss reported that ES seemed to serve a protective function in this sample, in that lesbians who reported higher levels of ES showed a significantly smaller positive association between body shame and indicators of poor psychological well-being (symptoms of depression and negative eating attitudes). Thus, ES may have different implications for individuals of varied sexual orientations.

The Enjoyment of Sexualization Scale (ESS; Liss et al., 2011) was developed specifically to assess the degree to which women enjoyed sexualized attention from men. Visser et al. (2014) extended the construct by developing a version of the ESS for use in samples of heterosexual men (i.e., assessing their enjoyment of sexualized attention from women). These authors reported that the male version of the scale yielded a similar unidimensional factor structure to the original version, but that men endorsed the item "I feel complimented when women check me out" to a much greater extent than women endorsed the item "I feel complimented when men whistle at me." The authors concluded that the latter item was assessing a more extreme sexualizing behavior and recommended that future researchers intending to measure ES in both men and women use the "check me out" item for both scales.

A limitation of both the original ESS and the revised version for men is that both scales were developed for heterosexual respondents. Lesbians, as previously discussed, are subject to sexualized attention from men, and the original scale is a useful tool for assessing enjoyment of the male gaze in this group. The SO research has shown that gay men not only report higher levels of trait SO than do heterosexual men, but that a manipulation inducing greater state SO had more damaging consequences for gay men (Martins et al., 2007). Similarly, research has shown that SO and body shame were associated with negative eating attitudes in lesbian women (Haines et al., 2008; Kozee & Tylka, 2006). Given that SO is relevant and important in non-heterosexual populations, it seems likely that ES is similarly important. As such, there is a need for an ES measure that does not exclude such groups.

Enjoyment of Sexualization and Personality

Broadly, ES acts as a stable index of a person's affective, cognitive, and behavioral reaction to sexualizing messages. As with other trait variables, it is likely that ES is shaped by a variety of influences. One pertinent set of factors that may impact ES are higher-order personality factors such as those described in the Big Five (John & Srivastava, 1999) and HEXACO (Ashton et al., 2009) models of personality. The personality traits in these models have a significant genetic component (Bouchard & McGue, 2003; Kandler et al., 2019) and are thought to emerge relatively early in life (i.e., adolescence; Ibáñez et al., 2016; Sergi et al., 2020) as a result of temperament (Caspi et al., 2003; Rothbart, 2007) and upbringing (Borkenau et al., 2001). It is likely that these higher-order personality traits have an impact on lower-order traits, such as ES, through characteristic proximal mechanisms (Hampson, 2012).

While the literature is relatively sparse in this regard, this possibility seems to be supported. In a previous study (Visser et al., 2014), ES was positively and significantly correlated with Big Five Extraversion, distinguishing the construct from SO, which was positively correlated only with Neuroticism in both male and female participants. Miner-Rubino et al. (2002) also found that SO was associated with high Neuroticism, but also low Agreeableness and Openness to Experience. These studies offer some support for the role of Big Five personality in relation to ES, but there has been no comprehensive research to date exploring the HEXACO correlates of ES.

The Big Five and HEXACO models of personality share several similarities. Both the Big Five and the HEXACO models of personality are taxonomic. This means that they are frameworks designed to organize and describe fundamental and universal personality dimensions. The Big Five and the HEXACO models also share a commonality in terms of how they were derived. Both of these frameworks were generated using lexical means. By examining human language and collating terms that describe human personality traits, it is believed that major personality dimensions can be identified through dimension reduction techniques. Lastly, the Big Five and HEXACO models are also hierarchical, insofar as they consist of multiple broad dimensions of personality that are comprised of multiple narrow traits.

Despite these similarities, there are a number of key differences between these two models. Empirically, the HEXACO is superior insofar as it accounts for a larger amount of variance in personality space and has more closely corresponded to lexical studies in languages other than English (see Ashton & Lee, 2007 for a review). Theoretically, the HEXACO model also has the advantage of possessing an explanatory (rather than purely descriptive) component that addresses human tendencies during important human activities and tasks (e.g., social engagement, parenting; (Ashton & Lee, 2007; Lee & Ashton, 2008). Lastly, the addition of the Honesty-Humility factor in the HEXACO model has proven particularly important in accounting for variance beyond the Big Five (Ashton et al., 2019), particularly when predicting both altruistic and selfish behaviors (see Ashton & Lee, 2008 for a review).

Given these differences, examining the HEXACO personality correlates of ES may provide new information about the construct. There has been little research examining the HEXACO correlates of SO, although Torres-Marin et al. (2020) reported that SO was significantly correlated only with HEXACO Emotionality (r=0.36) and Agreeableness (r=-0.25) in a sample of young adult men and women.

The Current Research

The purpose of the current study was to validate an ES scale that would be appropriate for individuals of various gender and sexual orientations as well as to identify the HEXACO correlates of the ES construct. In Study 1, we conducted exploratory factor analysis to determine the factor structure of the Enjoyment of Sexualization Scale—Revised (ESS-R). In addition, we replicated previous associations (i.e., SO and the belief that women use sex to gain power over men) and investigated a novel association (need for cognition).

In a second sample, we conducted a multiple-groups confirmatory factor analysis as part of best practice for formulating measures (Vandenberg & Lance, 2000). We hypothesized that the same construct would be measured in men and women (i.e., that the factor structure of the measure would be invariant) and that the indicators used in the measure would be equally valid across these populations (i.e., that the factor loadings of the items would be invariant). Further, we replicated Big Five and HEXACO personality correlates of ES as well as investigating associations with indicators of eating disorder symptoms and body dissatisfaction.

Study 1

In Study 1, a sample of undergraduate students completed the ESS-R online. The goal of this study was to determine the ESS-R factor structure as well as to investigate whether the ESS-R's positive associations with "sex is power" (i.e., the belief that women use their sexuality to gain power over men) and SO are similar to those established in the ES research.

Further, previous research has shown that when women experience objectification, they show evidence of diminished cognition (e.g., Gay & Castano, 2010). Self-objectification has been thought to affect cognitive performance (Frederickson & Roberts, 1997; Winn & Cornelius, 2020) through the diversion of attentional resources. It is also possible that self-objectification may lead to a reduced desire to engage in tasks that are intellectually challenging and require a great deal of attentional resources (i.e., Need for Cognition; Bauer & Stiner, 2020). If chronic selfobjectification continually diverts attentional resources away from immediate tasks, it would stand to reason that the degree to which a given individual would be motivated to engage in high-resource thinking would also decrease. Intrinsic motivation is also thought to decrease when individuals are made to focus on the self that they present to others (Plant & Ryan, 1985). On an exploratory basis, we included the Need for Cognition scale (NCS; Cacioppo et al., 1984) to investigate whether individuals who report higher levels of trait SO show a reduced need for cognition. We hypothesized that SO but not ES would be associated with lower levels of need for cognition in both men and women.

Method

Participants

The 294 participants were recruited from the participant pool at a small Canadian university. Three hundred and nine respondents completed the study, but 15 participants were removed due to completing less than 50% of the questionnaire items. Of the final sample, 243 participants were women (82.7%), 49 were men (16.7%) and two reported other gender identities (e.g., nonbinary). Participants reported both their sexual behaviors and their sexual thoughts and feelings on scales from 1 (exclusively homosexual—gay or lesbian) to 7 (exclusively heterosexual—straight). Only four (1.1%) female participants reported their behavior as exclusively homosexual, and 286 (75.9%) reported their behavior as exclusively heterosexual. The remaining 85 female participants (22.5%) rated themselves as neither exclusively heterosexual or homosexual, and 226 (59.9%) rated their thoughts and feelings as entirely homosexual, and 226 (59.9%) rated their thoughts and feelings as entirely homosexual. The remaining 145 female participants (38.5%) rated themselves as

neither exclusively heterosexual or homosexual. For male participants, 11 (6.8%) rated their behavior as entirely homosexual, and 130 (80.7%) rated their behavior as entirely heterosexual. The remaining 20 (12.4%) male participants rated their behavior as neither exclusively homosexual or heterosexual. Thirteen (8.1%) of the men rated their thoughts and feelings as entirely homosexual, and 130 (80.7) rated their thoughts and feelings as entirely heterosexual. The remaining 20 (12.4%) rated their thoughts and feelings as entirely homosexual. The remaining 20 (12.4%) rated their thoughts and feelings as neither entirely homosexual or heterosexual.

Measures

Enjoyment of Sexualization

We developed the Enjoyment of Sexualization-Revised (ESS-R; see Table 1) to measure ES in both men and women who are attracted to individuals of any gender. Items (e.g., "I want people (of the gender I'm attracted to) to look at me") were developed as gender- and orientation-inclusive versions of the eight ESS (2011) items for heterosexual women and Visser et al.'s (2014) version for heterosexual men. Participants responded on a five-point scale from 1 (*Strongly disagree*) to 5 (*Strongly agree*) and scores were calculated as the arithmetic mean of constituent items.

Self-Objectification

We used the eight-item Surveillance scale from McKinley and Hyde's (1996) Objectified Body Consciousness Scale (OBCS) to measure SO. This scale measures an individual's awareness of one's appearance as others perceive it (e.g., *During the day, I think about how I look many times*) and has been widely used to assess SO (Calogero et al., 2011). Participants responded on a five-point scale that ranged from 1 (*Strongly disagree*) to 5 (*Strongly agree*). Scores were calculated as the arithmetic mean of constituent items.

 Table 1
 ESS-R loadings on first unrotated factor

Item	Factor loading
1. It is important to me that people are attracted to me	.69
2. I feel proud when people (of the gender I'm attracted to) compliment the way I look. ^a	.56
3. I want people (of the gender I'm attracted to) to look at me. ^a	.66
4. I love to feel sexy	.67
5. I like showing off my body	.51
6. I feel complimented when people "check me out" as I walk past	.62
7. When I wear revealing clothing, I feel sexually attractive and in control	.52
8. I feel empowered when I look good	.52

Note. N = 289 (n = 48 men, n = 241 women)

^aFor greater gender diversity, we recommend that researchers use "of a gender I'm attracted to" for items 2 and 3

Need for Cognition

Need for Cognition (NFC) was assessed using the 18-item short-form version of the Need for Cognition Scale (NCS; Cacioppo et al., 1984). This scale assesses one's desire and motivation to engage in effortful thought (e.g., *I find satisfaction in deliberating hard and for long hours*). Participants responded on a five-point scale from 1 (*Strongly disagree*) to 5 (*Strongly agree*). Scores were calculated as the arithmetic mean of constituent items.

Sex is Power

The tendency to think that women generally use their appearance to gain power over men was assessed with the 5-item Women-Sex is Power Scale (W-SIPS; Erchull & Liss, 2013a, 2013b). Participants responded to items (e.g., "A beautiful woman can usually get what she wants") on a five-point scale from 1 (*Strongly disagree*) to 5 (*Strongly agree*). Scores were calculated as the arithmetic mean of constituent items.

Data Analysis

Data analysis was conducted using version 26 of SPSS. Post hoc power analysis was conducted using the *pwr* package in RStudio (version 1.3.1093). For each group (i.e., women and men), post hoc power was calculated at each of the conventional levels of effect size for Pearson's product-moment correlation (Cohen, 1992). The smallest sample from analysis was used for post hoc power analysis. For women, post hoc power was estimated to be 0.34, 1.00, and 1.00 for an effect size of *r* equals 0.10, 0.30, and 0.50, respectively. For men, post hoc power was estimated to be 0.10, 0.54, and 0.96 for an effect size of *r* equals 0.10, 0.30, and 0.50, respectively.

Results and Discussion

See Table 2 for descriptive statistics and Cronbach's alphas. As reported by Visser et al. (2014), men reported ES to the same extent as did women. Although men reported lower levels of SO than women, this difference was not significant. Men reported higher levels of believing that women use their appearance to gain power over men.

Correlations

See Table 3 for zero-order correlations between the study variables. As in previous research with the ESS, the ESS-R was significantly positively correlated with self-objectification (e.g., Grower et al., 2021; Liss et al., 2011). The ESS-R Table 3 Correlations between the study 1 variables

Table 2 Means, standard deviations, sex differences, and	Variable	Women		Men		t(284)	р	d	α
internal consistency for study 1 variables		М	SD	М	SD				
	ES	3.54	.61	3.57	.64	-0.32	.749	.05	.81
	SO	3.39	.69	3.23	.61	1.45	.147	.25	.81
	NFC	3.19	.55	3.28	.58	-0.93	.355	.16	.84
	W-SIP	3.98	.93	4.38	.81	-2.74	.007	.46	.87

N=286 (n=239 for women, n=47 for men). All measures had a response scale ranging from 1 (Strongly disagree) to 5 (Strongly agree)

ES Enjoyment of Sexualization, SO Self-Objectification, NFC Need for Cognition, W-SIP Women's Sex is Power

Variable	1	2	3	4
1. ES	_	.42**	17**	.30**
2. SO	.37*	-	13 [†]	$.20^{**}$
3. NFC	15	02	-	11
4. W-SIP	.34*	.18	.03	-

N=286. Correlations for women (n=239) are presented above the diagonal and correlations for men (n=47) are below the diagonal

ES Enjoyment of Sexualization, SO Self-Objectification, NFC Need for Cognition, W-SIP Women's Sex is Power

 $^{\dagger} p < .10. ^{*} p < .05 ^{**} p < .01$

was also positively correlated with the belief that women's sex is power in both men and women, whereas SO was correlated with sex is power only in women. Erchull and Liss (2013a, 2013b) similarly found a significant correlation between the belief that women's sex is power and ESS (r=0.39) in their sample of undergraduate women, although the correlation between women's sex is power and SO (r=0.12) in that study was not significant.

NFC was significantly negatively correlated with ES in women but none of the other correlations involving NFC were significant. However, there was a trend towards significance in the association between SO and NFC in women. Thus, our hypothesis that women who chronically self-objectify would show a diminished preference for activities that are cognitively challenging was not well-supported. However, the small negative correlation between ES and NFC in women suggests that women who seek out and enjoy sexualized attention might show a reduced enjoyment of activities that are cognitively stimulating.

Facture Structure

We conducted Exploratory Factor Analysis on the ESS-R (principal axis factoring). The first unrotated factor accounted for 42.88% of the variance. The eigenvalues of the first four factors were 3.43, 1.07, 0.81, and 0.64, suggesting one large factor. Loadings on the first factor ranged from 0.52 to 0.69 (see Table 1). These EFA results are consistent with those reported in the original factor analysis of the ESS (Liss et al. (2011) for the ESS. In their validation study, Liss and colleagues reported that the first unrotated factor of the ESS accounted for 41.7% of the variance with loadings ranging from 0.53 to 0.76.

Thus, Study 1 provided preliminary support for the construct validity of the ESS-R in its factor structure as well as in its associations with other variables. A limitation to Study 1 was the small number of men in the sample.

Study 2

In Study 2, the psychometric properties and nomological network of the ESS-R were examined. We recruited a sample with a sufficient number of men to test for gender invariance in the ESS-R. Visser et al. (2014) found that ES was positively correlated with self-esteem in men but not women, and more highly related to self-perceived attractiveness in men. These authors speculated that the less harmful nature of ES as compared to SO might be dependent, at least to some extent, on perceiving oneself as attractive. Thus, in Study 2, we included variables related specifically to concerns about physical attractiveness: eating disorder symptoms, desire to have a body of a different size, and appearance anxiety. We expected that women who enjoyed sexualization would be more apt than men who enjoyed sexualization to have concerns about their appearance. Based on previous findings, we expected that selfobjectification but not enjoyment of sexualization would be significant in the prediction of the body dissatisfaction indicators. Finally, we investigated the Big Five and HEXACO personality correlates of both self-objectification and the ESS-R for both men and women. We expected to replicate the Big Five personality correlates established by Visser et al., (2014; i.e., that ES would be associated with high Extraversion and the self-objectification would be associated with high Neuroticism). With regard to HEXACO personality, we predicted that ES would be associated with high eXtraversion whereas SO would be associated with high Emotionality.

Method

Participants

The participants were 539 undergraduate students (377 women, 161 men, and one individual who did not report their gender) at a small Canadian university. Students completed the study for course credit. The participants ranged in age from 17 to 54 years (M=20.35, SD=4.25). Data was collected on self-reported number of sexual partners and number of one-time sexual encounters (i.e., occasions in which the participant engaged in sexual activity with a partner only once). The median number of partners was 2 (M=4.59, SD=8.14) and the median number of one-time sexual encounters was 1 (M=1.73, SD=5.28). On average, men (M=5.72, SD=9.80)

reported more sexual partners than women (M=4.12, SD=7.31), although this difference only trended towards significance, t(227.68)=-1.82, p=0.070, d=0.19. In regard to one-night sexual encounters, men (M=2.36, SD=6.95) did not differ significantly from women (M=1.47, SD=4.37) in terms of self-reported frequency, t(207.76)=-1.48, p=0.141, d=0.15.

Measures

Enjoyment of Sexualization

The ESS-R (see Study 1) was administered to participants to measure the degree to which participants enjoyed being sexualized by members of the gender(s) they were attracted to.

Objectified Body Self-Consciousness

As in Study 1, the Surveillance subscale of the Objectified Body Self-Consciousness Scale (McKinley & Hyde, 1996) was used to assess the degree to which participants objectified themselves.

Appearance Anxiety

Participants completed the Appearance Anxiety Scale (AAS; Dion et al., 1990) to measure the degree to which individuals felt anxiety over their physical appearance. Participants indicated the degree to which 14 statements applied to them on a 5-point Likert-type scale ranging from 0 (*Never*) to 4 (*Almost Always*). Items included statements such as "I worry about how others are evaluating how I look" and "I feel nervous about aspects of my physical appearance".

Eating Attitudes

The Eating Attitudes Test (EAT; Garner et al., 1982) was used to measure participant attitudes, behaviors, and cognitions regarding weight, food, and eating. The EAT is commonly used to index eating disorder symptomatology (Mintz & O'Halloran, 2000). This scale consists of 26 items that are completed on a 6-point Likert-type scale ranging from 1 (*Never*) to 6 (*Always*). Participants were asked to rate their agreement with statements such as "Am terrified about being overweight" and "Engage in dieting behavior".

Body Mass Index Discrepancy

The Body Mass Index (BMI) of each participant was calculated based on selfreported height and weight. Participants' ideal BMI was calculated by asking participants to report their ideal weight. As a proxy for body dissatisfaction, the absolute difference between each participant's current BMI and their ideal BMI was calculated (BMI-D). Absolute differences were used to ensure that this proxy accounted for a desire to be lighter or heavier.

Personality

Big Five The Big Five Inventory (John & Srivastava, 1999) was administered to measure the five major domains of personality proposed in the aforementioned model. This scale consists of 44 items that are further subdivided into five subscales: Openness to Experience (10 items), Conscientiousness (9 items), Extraversion (8 items), Agreeableness (9 items), and Neuroticism (8 items). Participants were asked to rate their agreement with a series of characteristics on a 5-point Likert-type scale ranging from 1 (*Disagree Strongly*) to 5 (*Agree Strongly*). Sample items include "I am someone who prefers work that is routine" (Conscientiousness) and "I am someone who is outgoing, sociable" (Extraversion).

HEXACO The 60-item HEXACO Personality Inventory—Revised (HEXACO-PI-R; Ashton et al., 2009) was administered to measure the six dimensions of personality proposed in the HEXACO model. This scale consists of six subscales: Honesty-Humility (10 items), Emotionality (10 items), Extraversion (10 items), Agreeableness (10 items), Conscientiousness (10 items), and Openness to Experience (10 items). Participants were asked to rate their agreement with a series of statements on a 5-point Likert scale that ranged from 1 (*Strongly disagree*) to 5 (*Strongly agree*). Sample items include "I would be quite bored by a visit to an art gallery" (Openness to Experience) and "I feel like crying when I see other people crying" (Emotionality).

Data Analysis

Data analysis was conducted using version 26 of SPSS. Post hoc power analysis was conducted in the same manner as described previously. For women, post hoc power was estimated to be 0.46, 1.00, and 1.00 for an effect size of r equals 0.10, 0.30, and 0.50, respectively. For men, post hoc power was estimated to be 0.23, 0.97, and 1.00 for an effect size of r equals 0.10, 0.30, and 0.50, respectively.

Results and Discussion

Descriptive Statistics and Body Dissatisfaction Correlates

See Table 4 for descriptive statistics and gender differences in study variables. As in previous research, women reported higher levels of SO and appearance anxiety than did men (e.g., Choma et al., 2010), as well as more eating disorder symptoms (e.g., Johnson & Bedford, 2004). Women also reported a greater discrepancy in their ideal versus actual body mass index. In this study, women reported significantly higher levels of self-reported ES than did men. Gender differences have been observed in

Variable	Female		Male	Male		р	d	α
	М	SD	М	SD				
ES	3.68	0.56	3.53	0.66	2.52	.012	.24	.83
SO	3.53	0.63	3.14	0.76	6.03	<.001	.56	.83
AA	2.25	0.84	1.76	0.81	6.03	<.001	.59	.93
EA	2.56	0.65	2.22	0.64	5.29	<.001	.53	.89
BMI	23.65	4.65	24.16	4.23	-1.14	.255	.11	
BMI-D	2.78	2.99	2.19	2.24	2.20	.028	.22	
BF								
Openness	3.40	0.62	3.57	0.58	-2.95	.003	.28	.75
Conscientiousness	3.57	0.58	3.45	0.59	2.16	.031	.21	.75
Extraversion	3.32	0.77	3.09	0.74	3.03	.003	.30	.84
Agreeableness	3.82	0.60	3.67	0.62	2.53	.012	.25	.77
Neuroticism	3.33	0.80	2.82	0.76	6.65	<.001	.65	.85
HEXACO								
Honesty-Humility	3.36	0.59	3.17	0.65	3.14	.002	.31	.73
Emotionality	3.59	0.60	2.97	0.64	10.32	<.001	1.00	.80
Extraversion	3.17	0.71	3.20	0.63	-0.38	.701	.04	.82
Agreeableness	3.06	0.58	3.16	0.61	-1.72	.094	.17	.72
Conscientiousness	3.57	0.59	3.39	0.56	3.16	.002	.31	.77
Openness	3.14	0.71	3.42	0.63	-4.13	<.001	.42	.79

Table 4 Means, standard deviations, sex differences, and internal consistency for study 2 variables

N=495 (n=344 women, n=151 men). All measures had a response scale from 1 (*Strongly disagree*) to 5 (*Strongly agree*) with the exception of AA, which ranged from 0 (*Almost never*) to 4 (*Almost always*) and EA, which ranged from 1 (*Never*) to 6 (*Always*)

ES Enjoyment of Sexualization, *SO* Self-Objectification, *AA* Appearance Anxiety, *EA* Eating Attitudes, *BMI* Body Mass Index, BMI-D Body Mass Index Discrepancy, *BF* Big Five, *HEXACO* HEXACO Personality

some (Barnett et al., 2018; Ward et al., 2016) but not all (Manago et al., 2015; Visser et al., 2014) studies, although the direction of this difference is not consistent.

In both men and women, SO was positively and significantly correlated with all measures of body dissatisfaction: appearance anxiety, eating disorder symptoms, and absolute discrepancy between ideal and actual body mass index. The only significant correlation between ES and body dissatisfaction was a small positive correlation (r=0.11) for women between ES and EAT. On the whole, SO was distinguishable from ES in both men and women. While ES was unrelated to various indices of body dissatisfaction, SO appears to be related to negative affect, cognitions, and attitudes regarding one's own body.

Personality Correlates

Associations between ES, SO, and the Big Five personality dimensions are shown in Table 5. Consistent with previous research (Visser et al., 2014), ES was associated

BFI subscale	Women		Men		
	ES	SO	ES	SO	
Openness	.08	17	.13 [†]	06	
Conscientiousness	06	08	.10	11	
Extraversion	.15**	08	.25**	10	
Agreeableness	02	08	.00	17*	
Neuroticism	.04	.28***	08	.35***	

N = 536 (n = 375 women, n = 161 men)

ES Enjoyment of Sexualization, SO Self-Objectification, BFI Big Five Inventory

 $^{\dagger}p$ < .10. $^{*}p$ < .05 $^{**}p$ < .01

with high Extraversion in both men and women. Notably, there was a trend towards significance in the positive relationship between ES and Openness to Experience in men. The magnitude of this relationship was higher than the association reported in Visser et al. (2014).

Consistent with previous research (Calogero & Watson, 2009; Miner-Rubino et al., 2002; Visser et al., 2014), SO was positively associated with Neuroticism in both men and women (see Table 5). There was also a significant association between SO and Agreeableness in men in the current sample. The magnitude of this association was the same as in Visser et al. (2014), although the increased power in the current sample made this association significant at the p < 0.05 level.

The associations between ES and the HEXACO personality dimensions for each gender are shown in Table 6. In both men and women, ES was significantly associated with the Honesty-Humility (negatively) and eXtraversion (positively) personality dimensions. The magnitude of the former association was larger in women than men (r=-0.31 vs. r=-0.20), although this pattern was reversed in

Table 6 Correlations between the ESS-R SUR and the SUR	HEXACO subscale	Women		Men		
HEXACO		ES	SO	ES	SO	
	Honesty-humility	31***	21***	20*	31***	
	Emotionality	.07	.23***	05	.19*	
	Extraversion	.13*	22***	.36***	20^{*}	
	Agreeableness	07	13*	05	22**	
	Conscientiousness	10^{*}	01	01	05	
	Openness	01	18**	09	04	

N = 536 (n = 375 women, n = 161 men)

ESS-R Enjoyment of Sexualization, SO Self-Objectification, HEX-ACO HEXACO Personality Inventory—Revised

p < .05 p < .01. p < .001

Table 5Correlations betweenthe ESS-R, SUR, and the BFI

the latter association (r=0.13 vs. r=0.36). There was also a small negative association between ES and Conscientiousness that appeared to be unique to women.

As with ES, SO was negatively associated with Honesty-Humility in women and men (r=-0.21 and r=-0.31, respectively). In contrast to ES, SO was negatively related to eXtraversion in both samples (see Table 6). SO was also related to higher levels of Emotionality and lower levels of Agreeableness. Lastly, SO was negatively associated with Openness to Experience in women only. These results are somewhat consistent with those reported by Torres-Marín et al. (2020), who reported similar findings in regards to the relations between SO, Emotionality, and Agreeableness, but did not find any significant relations with the remaining personality dimensions.

Hierarchical Regressions

Three hierarchical regressions were conducted to predict each of the body dissatisfaction variables (i.e., eating disorder symptoms, desire to have a different body size, and appearance anxiety). Gender was entered in the first step of each regression (women were coded as 0 and men as 1). Afterwards, SO and ES were entered in the second step of the regressions to examine their unique contributions in the prediction of the body dissatisfaction variables. Lastly, the two interaction terms (i.e., gender x SO and gender x ES) were entered in the third step of each regression. All dependent variables were unstandardized and predictor variables were standardized.

Step	Variable	B	95% CI f	or B	SE B	β	R^2	ΔR^2
			LL	UL				
1	Constant	2.55***	2.48	2.61	0.03		.05***	_
	Gender	-0.32***	-0.44	-0.20	0.06	-0.22		
2	Constant	2.52^{***}	2.45	2.58	0.03		.16***	.11***
	Gender	-0.20^{**}	-0.32	-0.09	0.06	-0.14		
	ES	-0.01	-0.06	0.05	0.03	-0.01		
	SO	0.23***	0.17	0.29	0.03	0.35		
3	Constant	2.51***	2.45	2.57	0.03		.17	.01
	Gender	-0.22^{***}	-0.34	-0.10	0.06	-0.15		
	ES	-0.01	-0.08	0.05	0.03	-0.02		
	SO	0.27^{***}	0.20	0.34	0.04	0.41		
	Gender x ES	0.01	-0.11	0.12	0.06	0.01		
	Gender x SO	-0.11^{\dagger}	-0.22	0.01	0.06	-0.10		

Table 7 Testing ES as a predictor of eating attitudes

N=536. Gender was coded as 0 for women and 1 for men. Predictor variables were standardized and dependent variable was unstandardized

CI confidence interval; *LL* lower limit, *UL* upper limit, *ES* Enjoyment of Sexualization, *SO*=Self-objectification

 $^{\dagger}p < .10. ^{**}p < .01. ^{***}p < .001$

In the first hierarchical regression, ES was tested as a predictor of eating disorder symptoms (see Table 7). In the third step of the regression, ES did not significantly predict poor eating attitudes. However, gender and SO were significant predictors. There was also a trend towards an interaction between gender and SO, such that at high but not low levels of self-objectification, women reported higher levels of disordered eating attitudes than did men.

ES was tested as a predictor of absolute BMI discrepancy in the second hierarchical regression (see Table 8). After all the predictors were entered into the regression, the only significant predictor of a desire to gain or lose weight was SO. There was a trend towards significance for ES as a predictor, although the direction was negative.

In the final hierarchical regression, ES was tested as a predictor of appearance anxiety (see Table 9). In the third step of the regression, there were three significant predictors of appearance anxiety: gender, ES, and SO. Interestingly, ES was negatively associated with appearance anxiety, such that participants who enjoyed being sexualized tended to report lower levels of appearance anxiety. There was also a significant interaction between gender and SO (see Fig. 1). This significant interaction was probed at one standard deviation over and under the SO mean. At high levels of SO, gender was a significant negative predictor of appearance anxiety (B=0.57, p<0.001). At low levels of SO, gender was not a significant predictor of appearance anxiety (B=0.11, p=0.212). Thus, at high levels but not low levels of SO, women report greater appearance anxiety than did men.

Overall, ES did not appear to be linked to indicators of body dissatisfaction. In fact, the results appear to suggest that individuals who report higher trait levels of

Step	Variable	В	95% CI f	95% CI for <i>B</i>		β	R^2	ΔR^2
			LL	UL				
1	Constant	2.78^{***}	2.49	3.07	0.15		.01*	_
	Gender	-0.59^{*}	-1.13	-0.06	0.27	-0.10		
2	Constant	2.70^{***}	2.41	2.99	0.15		.05***	.04***
	Gender	-0.32	-0.87	0.22	0.28	-0.05		
	ES	-0.27^{*}	-0.53	-0.01	0.13	-0.10		
	SO	0.59^{***}	0.33	0.86	0.13	0.21		
3	Constant	2.68^{***}	2.39	2.98	0.15		.05***	.01
	Gender	-0.36	-0.91	0.19	0.28	-0.06		
	ES	-0.31^{\dagger}	-0.64	0.02	0.17	-0.11		
	SO	0.70^{***}	0.36	1.04	0.17	0.25		
	Gender x ES	0.07	-0.46	0.60	0.27	0.02		
	Gender x SO	-0.26	-0.80	0.28	0.27	-0.06		

Table 8 Testing ES as a predictor of BMI-D

N=496. Gender was coded as 0 for women and 1 for men. Predictor variables were standardized and dependent variable was unstandardized

CI confidence interval, LL lower limit, UL upper limit, ES Enjoyment of sexualisation, BMI-D Body Mass Index—Discrepancy, SO Self-objectification

 $^{\dagger}p < .10. ^{*}p < .05 ^{**}p < .01. ^{***}p < .001$

Step	Variable	В	95% CI f	for B	SE B	β	R^2	ΔR^2
			LL	UL				
1	Constant	2.23***	2.14	2.31	0.04		.06***	_
	Gender	-0.46***	-0.61	-0.30	0.08	-0.24		
2	Constant	2.16***	2.09	2.23	0.04		.36***	.29***
	Gender	-0.23**	-0.37	-0.10	0.07	-0.12		
	ESS-R	-0.18^{***}	-0.25	-0.12	0.03	-0.21		
	SUR	0.51***	0.45	0.58	0.03	0.59		
3	Constant	2.15***	2.08	2.22	0.04		.37***	$.01^{\dagger}$
	Gender	-0.26^{***}	-0.39	-0.12	0.07	-0.14		
	ESS-R	-0.19^{***}	-0.27	-0.11	0.04	-0.22		
	SUR	0.57^{***}	0.49	0.65	0.04	0.66		
	Gender x ESS – R	0.00	-0.13	0.12	0.07	0.00		
	Gender x SUR	-0.15^{*}	-0.28	-0.02	0.07	-0.11		

Table 9 Testing ES as a predictor of AA

N=535. Gender was coded as 0 for women and 1 for men. Predictor variables were standardized and dependent variable was unstandardized

CI confidence interval, LL lower limit, UL upper limit, ES Enjoyment of Sexualization, AA Appearance Anxiety, SO Self-Objectification

 $^{\dagger}p < .10. \ ^{*}p < .05 \ ^{**}p < .01. \ ^{***}p < .001$



Fig. 1 Self-Objectification by Gender Interaction in the Prediction of Appearance Anxiety Note. N=535

ES tend not to feel anxious about their appearance and are happy with the size of their bodies. In contrast, SO contributed unique variance towards the prediction of all three body dissatisfaction variables.

Table 10Correlations betweenESS-R, Self-objectification, andbody dissatisfaction variables

Variable	1	2	3	4	5
1. ES	_	.33***	02	.13*	03
2. SO	.21**	-	.54**	.35***	$.18^{**}$
3. AA	15^{\dagger}	.51***	-	.46***	.41***
4. EA	.07	.25**	.37***	-	.20***
5. BMI-D	07	.19*	.33***	.05	_

N=495. Correlations for women (n=344) are above the diagonal and correlations for men (n=151) are below the diagonal

ESS-R Enjoyment of Sexualization, *SO* Self-Objectification, *AA* Appearance Anxiety, *EA* Eating Attitudes, *BMI*-D Body Mass Index Discrepancy

 $^{\dagger}p < .10. \ ^{*}p < .05 \ ^{**}p < .01. \ ^{***}p < .001$

Table 11 Configural, metric, and scalar invariance testing for the ESS-R

Model	χ^2	df	Model com- parison	χ^2 d	df _D	RMSEA	CFI	ΔCFI	SRMR
1. Configural Invariance	97.41***	38	_	_	_	.076 [.058, .095]	.937	-	.053
2. Metric Invariance	105.61***	45	2 vs. 1	7.17	7	.049 [.016, .076]	.936	.001	.068
3. Scalar Invariance	167.26*	52	3 vs. 2	77.57***	7	.091 [.076, .107]	.878	.058	.091

RMSEA root-mean-square-error of approximation, *CFI* comparative fit index, *SRMR* standardized root mean square residual. χ^2_D calculated using the Satorra-Bentler Scaled Chi-Square Difference Test. All χ^2_D values represent a comparison between the current model and the previous one. Values in the square brackets indicate the 90% confidence interval for the point estimate of the RMSEA

p < .05. p < .001

Measurement Invariance

Measurement invariance was tested using the reference method outlined by Hoffman (2020). The women-only sample was used as the reference group in all invariance models. A configural invariance model was specified first as the least-restrictive test of measurement invariance. The factor loading of the first item of the ESS-R was set as the marker variable in both the women- and men-only models. The factor mean was also fixed to 0 for identification. All other parameters were freely estimated. The fit for this model was acceptable (see Table 10). It was concluded that the factor structure of the ESS-R was the same for both men and women.

Given these results, a metric invariance model was tested (see Table 11). The unstandardized factor loadings were constrained to be equal across groups. The factor variance of the women-only model was used as the marker variable. While the chi-square for this model was significant, the other fit indices suggested that model fit was acceptable. The chi-square difference test was not significant, suggesting that

the fit of the models did not significantly differ. Further, the change in CFI from the configural invariance model to the metric invariance model was also less than 0.01, a standard that has been suggested for testing measurement invariance hypotheses (Cheung & Rensvold, 2002). In sum, the evidence suggested that the loadings of the items in the ESS-R were equivalent across genders.

Afterwards, a scalar invariance model was tested (see Table 11). This model involved placing equality constraints on the intercepts for each indicator. For the purpose of model identification, the factor variance and mean for the women-only group were set to 0 and 1, respectively. In the men-only model, however, these parameters were freely estimated. The model chi-square and model fit indices suggested that the fit of the scalar invariance model was poor. Further, the chi-square difference test and the change in CFI both indicated that the fit of the scalar invariance model was significantly poorer than the metric invariance model. Inspection of local fit suggested that global misfit was driven by items 4, 6, 7, and 8. Specifically, women systematically endorsed higher item responses on item 6. At this point, the analysis was terminated and it was concluded that the item intercepts for the ESS-R differed across groups.

Overall Discussion

Based on the results of these two studies, the ESS-R is a satisfactory scale in terms of its psychometric properties. The ESS-R also appears to index the same construct being assessed in women with the original ESS measure. Despite changes in the wording of some of the items, mean levels of ES in undergraduate women are similar to those reported in other studies. In studies using a Likert-type scale ranging from 1 to 5 (e.g., Aubrey et al., 2017; Visser et al., 2014), mean scores and standard deviations are similar. In studies using a 6-point Likert-type scale (e.g., Barnett et al., 2018; Liss et al., 2011), mean scores and standard deviations are still similar when examining (a) the distance of the mean from the midpoint of the scale and (b) the standard deviation as a proportion of the potential variability in responses.

A review of the literature also suggests that associations are similar to those reported using previous iterations of the ESS. For instance, the association between the ESS and the surveillance subscale of the OBCS reported by Liss et al. (2011) is comparable to that reported by undergraduate women in the current study (r=0.46 vs. r=0.42). The magnitude of this association is also consistent with other research (Grower et al., 2019, 2021; Visser et al., 2014).

The evidence from the two studies suggests that ES, while related to SO, is a distinct phenomenon. As with previous research (e.g., Liss et al., 2011; Visser et al., 2014), the association between ES and SO was modest in both Study 1 and Study 2. Further, ES appears to be distinguishable from SO when examining the nomological network of each construct. Individuals who regularly self-objectify appear to be more likely to experience negative affect when thinking about their appearance, exhibit unhealthy attitudes and cognitions regarding eating, and desire greater changes in their body weight. Conversely, women who enjoy being sexualized

appear to be more likely to have negative attitudes and cognitions about eating, although to a lesser extent. One point of convergence between ES and SO is that individuals who report higher levels of both constructs are more likely to possess the view that women use their sexuality as a form of social power. As such, both constructs appear to relate to endorsement of global beliefs around gender norms and roles. The relationship between ES and W-SIPS has been reported previously by Erchull and Liss (2013a, 2013b), although these authors found that the relationship between SO and W-SIPS did not reach significance. While S-SIPS was not measured in the current study, future research should replicate the correlations reported by Erchull and Liss (2013a, 2013b).

While Grower et al. (2021) found direct negative effects (higher depression, anxiety, and hostility) of ES in their sample of adolescent girls, this was not the case in the current study. SO appeared to have more negative correlates overall, in keeping with previous research, but ES was associated with a reduced need for cognitively challenging stimuli in women. If the cognitive effort associated with chronic enjoyment of sexualization is reliably associated with a tendency to avoid cognitively challenging stimuli, this would be an important disadvantage to this seemingly less harmful construct. It is notable, however, that the magnitude of the association between SO and NFC was similar to the association between ES and NFC (r=0.13vs. r=0.17). Future research should seek to replicate and investigate these relationships, particularly in broader age groups. It seems possible that Grower et al.'s (2021) findings are related to their adolescent sample, for whom enjoyment of sexualized attention might have been more damaging.

In regards to personality correlates, the findings of Study 2 suggest that ES and SO can also be clearly delineated. Individuals who report higher levels of trait ES were more likely to report higher levels of trait Extraversion. From a theoretical perspective, this finding suggests that individuals who enjoy the experience of being sexualized tend to be more social and gregarious. In contrast, individuals who report higher levels of trait SO are more likely to report higher levels of Neuroticism. Thus, individuals who regularly objectified themselves tended to be more nervous, self-conscious, and irritable.

Under the HEXACO model, individuals who report higher levels of trait ES were more likely to report higher levels of eXtraversion but lower levels of Honesty-Humility. The former association is consistent with the Big Five model and suggests that individuals who enjoy sexualization tend to be those who enjoy interacting with others and are confident in how others perceive them. The latter association suggests that these individuals are more likely to flatter and manipulate others and may feel entitled. This association between ES and Honesty-Humility may represent the influence of the Dark Triad (Paulhus & Williams, 2002), a group of personality traits that is characterized by low Honesty-Humility in the HEXACO model. In particular, subclinical narcissism is characterized by low Honesty-Humility and high eXtraversion (Visser, 2018). Alternatively, low Honesty-Humility is related to exhibitionism and seductive sexual behavior (Lee & Ashton, 2012; Lee et al., 2005). These characteristics may drive the overlap between Honesty-Humility and ES.

SO, on the other hand, was related to higher levels of Emotionality and lower levels of Honesty-Humility, eXtraversion, and Agreeableness in the HEXACO model. Together, this pattern of personality correlates suggests that individuals who chronically self-objectify are more likely to be anxious, sensitive to risk and threat, and readily angered. In addition, these individuals tend to be more socially withdrawn. As with ES, SO was also negatively associated with Honesty-Humility, suggesting that trait SO is linked to the capacity to flatter, deceive, and otherwise cheat others.

One possible explanation for the seemingly more harmful nature of SO as compared to ES lies in the aforementioned personality correlates. While many individuals are likely to experience sexualizing messages, the manner in which they perceive and respond to these messages may differ based on variations in personality. For instance, individuals who are high in Big Five Neuroticism/HEXACO Emotionality may experience widespread sexualizing messages as harmful and anxiety-provoking. In turn, such individuals may become increasingly conscious of how others may perceive them (i.e., self-objectification). Conversely, individuals who are high in Big Five Extraversion/HEXACO Extraversion may perceive sexualization as a source of confidence and positive feedback. Individuals who report high levels of Extraversion are likely to assume that others perceive them positively (Lee & Ashton, 2012), have higher sex drives (Schmitt & Buss, 2000) and are typically found to be more sexually attractive (Lukaszewski & Roney, 2011; Rodriguez & Lukaszewski, 2020).

While the factor structure and loadings of the ESS-R were invariant across men and women, the origin of the scale (i.e., item score when score on the latent factor is zero) differed in these four items. This suggests that a differential additive response style may be influencing the responses of at least one group (Cheung & Rensvold, 2002; Kline, 2016). In essence, some form of systematic influence(s) is affecting the responses of one (or both) of the groups. Further research is needed to identify the source(s) of this difference on these items.

Limitations

Although we developed a scale that is appropriate for use in wider audiences (i.e., non-heterosexual), we did not examine ES in these populations. The ES construct still needs to be investigated in a range of ages, gender identities, and sexual orientations. To date, ES has been largely investigated in samples of young heterosexual women. Given that the experience and correlates of SO differ across populations (e.g., Chen & Russo, 2010; Rollero & De Piccoli, 2017), it is likely that these will differ with ES. Future research should continue to examine the psychometric properties and nomological network of the ESS-R in diverse populations. In future studies, we recommend that the ESS-R be slightly modified by researchers. Two of the items (items 2 and 3) refer to "*the* gender I'm attracted to." We suggest that the scale would be more inclusive (e.g., to bisexual or pansexual individuals) if these two items were changed to "*a* gender I'm attracted to."

An important caution to users of the ESS-R is that by framing sexualized attention as coming from a person of a gender one is attracted to, a somewhat different construct is being measured. The original ESS was developed to measure sexualized attention from men. By changing the phrasing, the ESS-R is inclusive of a broader range of participants, particularly heterosexual men, but many respondents will be less likely to have the "male gaze" in mind when responding to items. For example, lesbian women may have a very different response to the ESS-R than the ESS, due to sexualized attention from women likely being more welcome and also less threatening. Likewise, for bisexual and pansexual men and women, the implications of sexualized attention from a person of a gender they are attracted to may have quite different implication than sexualized attention from men. Further, when participants think of a "gender" they are attracted to, they might also envision a *person* they are attracted to, further shifting the construct. Future research may include both the ESS and the ESS-R in such populations to investigate similarities and differences.

Another limitation is in our use of the discrepancy between ideal and actual body mass index as an indicator of body dissatisfaction. We had hoped that asking our participants about their actual and ideal weights (as well as their height) would yield a proxy measure of body dissatisfaction. There was substantial variation in the ideal versus actual weight item, with women, on average, wanting to lose 15.72 pounds (SD=19.47) and men wishing to lose 4.22 pounds (SD=22.37). However, some of our male participants responded to the open-ended question about their ideal weight, indicating that their ideal would vary depending on the percentage of muscle mass. It seems likely that asking about weight as opposed to muscularity might have resulted in the mismeasurement of body dissatisfaction, particularly in men. While Western body ideals frequently highlight the importance of thinness for women, the body ideal for men is typically more focused on accruing muscle mass (e.g., Daniel & Bridges, 2010).

Conclusion

We introduced the ESS-R, a modification of Liss et al.'s Enjoyment of Sexualization Scale (ESS), originally developed for heterosexual women. The ESS-R is appropriate for samples including individuals of all gender and sexual orientations (see small but important wording revision above), but may be measuring a slightly different construct that the ESS. Across two studies, the ESS-R displayed many consistencies with the original ESS. As with the ESS, the ESS-R possessed a single factor structure and exhibited similar associations with SO, personality, and beliefs about women's sexuality. Importantly, we found that the scale was not invariant for male and female participants, meaning that items may not have the same meaning for individuals of different genders. It seems likely that ES is experienced differently by men and women and likely has fewer costs for men. For example, when men receive sexualized attention from women, they may not have the same safety and physical concerns that women might when receiving sexualized attention from men. The ESS-R offers researchers a tool to investigate the enjoyment of sexualization construct in more diverse samples than has been the case to date.

Acknowledgements We would like to thank an anonymous reviewer for the excellent feedback provided on this manuscript.

Funding We have no conflicts of interest to disclose.

References

- American Psychological Association Task Force on the Sexualization of Girls. (2007). *Report of the APA Task Force on the Sexualization of Girls*. http://www.apa.org/pi/women/programs/girls/report-full. pdf
- Ashton, M. C., & Lee, K. (2007). Empirical, theoretical, and practical advantages of the HEXACO model of personality structure. *Personality and Social Psychology Review*, 11(2), 150–166. https://doi.org/ 10.1177/1088868306294907
- Ashton, M.C., & Lee, K. (2008). The HEXACO model of personality structure and the importance of the H factor. Social and Personality Psychology Compass, 2(5), 1952–1962. https://doi.org/10.1111/j. 1751-9004.2008.00134.x
- Ashton, M., & Lee, K. (2009). The HEXACO-60: A Short Measure of the Major Dimensions of Personality. *Journal of Personality Assessment*, 91(4), 340–345. https://doi.org/10.1080/002238909029358 78
- Ashton, M. C., Lee, K., & Visser, B. A. (2019). Where's the H? Relations between BFI-2 and HEX-ACO-60 scales. *Personality and Individual Differences*, 137, 71–75. https://doi.org/10.1016/j.paid. 2018.08.013
- Attwood, F. (2007). Sluts and Riot Grrrls: Female Identity and Sexual Agency. Journal of Gender Studies, 16(3), 233–247. https://doi.org/10.1080/09589230701562921
- Aubrey, J. S., Gamble, H., & Hahn, R. (2017). Empowered Sexual Objects? The Priming Influence of Self-Sexualization on Thoughts and Beliefs Related to Gender, Sex, and Power. Western Journal of Communication, 81(3), 362–384. https://doi.org/10.1080/10570314.2016.1257822
- Barnett, M., Maciel, I., & Gerner, M. (2018). Enjoyment of Sexualization and Feminism: Relationships with Sexual Self-Schema and Psychosexual Health. Sexuality & Culture, 22(3), 669–684. https:// doi.org/10.1007/s12119-018-9515-5
- Bauer, B., & Stiner, E. (2020). Need for Cognition. In: Zeigler-Hill, V., Shackelford, T. K. (Eds.) Encyclopedia of Personality and Individual Differences (3122–3125). Springer. https://doi.org/10.1007/ 978-3-319-24612-3_1093
- Borkenau, P., Riemann, R., Angleitner, A., & Spinath, F. M. (2001). Genetic and environmental influences on observed personality: evidence from the German Observational Study of Adult Twins. *Journal of Personality and Social Psychology*, 80(4), 655. https://doi.org/10.1037/0022-3514.80.4. 655
- Bouchard Jr., T. J., & McGue, M. (2003). Genetic and environmental influences on human psychological differences. *Journal of Neurobiology*, 54(1), 4–45. https://doi.org/10.1002/neu.10160
- Breines, J. G., Crocker, J., & Garcia, J. A. (2008). Self-Objectification and Well-Being in Women's Daily Lives. *Personality and Social Psychology Bulletin*, 34(5), 583–598. https://doi.org/10.1177/01461 67207313727
- Cacioppo, J. T., Petty, R. E., & Feng Kao, C. (1984). The Efficient Assessment of Need for Cognition. Journal of Personality Assessment, 48(3), 306–307. https://doi.org/10.1207/s15327752jpa4803_13
- Calogero, R. M. (2009). Objectification Processes and Disordered Eating in British Women and Men. Journal of Health Psychology, 14(3), 394–402. https://doi.org/10.1177/1359105309102192
- Calogero, R. M. (2011). Operationalizing self-objectification: Assessment and related methodological issues. In R. M. Calogero, S. Tantleff-Dunn, & J. K. Thompson (Eds.), *Self-objectification in women: Causes, consequences, and counteractions* (pp. 23–49). American Psychological Association.
- Caspi, A., Roberts, B.W., & Shiner, R. L. (2003). Personality development: Stability and change. Annual Review of Psychology, 56, 453–484. https://doi.org/10.1146/annurev.psych.55.090902.141913
- Chen, F. F., & Russo, N. F. (2010). Measurement Invariance and the Role of Body Consciousness in Depressive Symptoms. *Psychology of Women Quarterly*, 34(3), 405–417. https://doi.org/10.1111/j. 1471-6402.2010.01585.x
- Cheung, G. W., & Rensvold, R. B. (2002). Evaluating Goodness-of-Fit Indexes for Testing Measurement Invariance. *Structural Equation Modeling: A Multidisciplinary Journal*, 9(2), 233–255. https://doi. org/10.1207/S15328007SEM0902_5
- Choma, B. L., Visser, B. A., Pozzebon, J. A., Bogaert, A. F., Busseri, M. A., & Sadava, S. W. (2010). Self-Objectification, Self-Esteem, and Gender: Testing a Moderated Mediation Model. Sex Roles, 63(9–10), 645–656. https://doi.org/10.1007/s11199-010-9829-8

- Cohen, J. (1992). A power primer. Psychological Bulletin, 112(1), 155–159. https://doi.org/10.1037/ 0033-2909.112.1.155
- Daniel, S., & Bridges, S. K. (2010). The drive for muscularity in men: Media influences and objectification theory. *Body Image*, 7(1), 32–38. https://doi.org/10.1016/j.bodyim.2009.08.003
- Dion, K. L., Dion, K. K., & Keelan, J. P. (1990). Appearance anxiety as a dimension of social-evaluative anxiety: Exploring the ugly duckling syndrome. *Contemporary Social Psychology*, 14(4), 220–224.
- Erchull, M. J., & Liss, M. (2015). Clinical outcomes of enjoying sexualization among lesbian women. Journal of Homosexuality, 62, 340–352. https://doi.org/10.1080/00918369.2014.972808
- Erchull, M. J., & Liss, M. (2013a). Feminists who flaunt it: Exploring the enjoyment of sexualization among young feminist women. *Journal of Applied Social Psychology*, 43(12), 2341–2349. https:// doi.org/10.1111/jasp.12183
- Erchull, M. J., & Liss, M. (2013b). Exploring the Concept of Perceived Female Sexual Empowerment: Development and Validation of the Sex is Power Scale. *Gender Issues*, 30(1–4), 39–53. https://doi. org/10.1007/s12147-013-9114-6
- Fredrickson, B. L., Roberts, T.-A., Noll, S. M., Quinn, D. M., & Twenge, J. M. (1998). That swimsuit becomes you: Sex differences in self-objectification, restrained eating, and math performance. *Journal of Personality and Social Psychology*, 75(1), 269–284. https://doi.org/10.1037/0022-3514.75.1. 269
- Garner, D. M., Olmsted, M. P., Bohr, Y., & Garfinkel, P. E. (1982). The Eating Attitudes Test: Psychometric features and clinical correlates. *Psychological Medicine*, 12(4), 871–878. https://doi.org/10. 1017/S0033291700049163
- Gay, R. K., & Castano, E. (2010). My body or my mind: The impact of state and trait objectification on women's cognitive resources. *European Journal of Social Psychology*, n/a-n/a. https://doi.org/10. 1002/ejsp.731
- Grower, P., Ward, L. M., & Beltz, A. M. (2019). Downstream consequences of pubertal timing for young women's body beliefs. *Journal of Adolescence*, 72, 162–166. https://doi.org/10.1016/j.adolescence. 2019.02.012
- Grower, P., Ward, L. M., & Rowley, S. (2021). Beyond Objectification: Understanding the Correlates and Consequences of Sexualization for Black and White Adolescent Girls. *Journal of Research on Adolescence*, 31(2), 273–281. https://doi.org/10.1111/jora.12598
- Haines, M. E., Erchull, M. J., Liss, M., Turner, D. L., Nelson, J. A., Ramsey, L. R., & Hurt, M. M. (2008). Predictors and Effects of Self-Objectification in Lesbians. *Psychology of Women Quarterly*, 32(2), 181–187. https://doi.org/10.1111/j.1471-6402.2008.00422.x
- Hampson, S. E. (2012). Personality processes: Mechanisms by which personality traits "get outside the skin". Annual Review of Psychology, 63, 315–339. https://doi.org/10.1146/annur ev-psych-120710-100419
- Hoffman, L. (2020). Measurement Invariance (MI) in CFA and Differential Item Functioning (DIF) in IRT/IFA. https://www.lesahoffman.com/CLP948/CLP948_Lecture07_Invariance.pdf
- Ibáñez, M. I., Viruela, A. M., Mezquita, L., Moya, J., Villa, H., Camacho, L., & Ortet, G. (2016). An investigation of five types of personality trait continuity: A two-wave longitudinal study of Spanish adolescents from age 12 to age 15. *Frontiers in Psychology*, 7(APR), 1–7. https://doi.org/10.3389/ fpsyg.2016.00512
- John, O. P., & Srivastava, S. (1999). The Big Five Trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (pp. 102–138). Guilford Press.
- Johnson, C. S., & Bedford, J. (2004). Eating attitudes across age and gender groups: A Canadian study. Eating and Weight Disorders - Studies on Anorexia, Bulimia and Obesity, 9(1), 16–23. https://doi. org/10.1007/BF03325040
- Kandler, C., Penner, A., Richter, J., & Zapko-Willmes, A. (2019). The Study of Personality Architecture and Dynamics (SPeADy): A longitudinal and extended twin family study. *Twin Research and Human Genetics*, 22(6), 548–553. https://doi.org/10.1017/thg.2019.62
- Kline, R. B. (2016). Principles and practice of structural equation modeling (4th ed.). Guilford Press.
- Kozee, H. B., & Tylka, T. L. (2006). A Test of Objectification Theory with Lesbian Women. *Psychology of Women Quarterly*, 30(4), 348–357. https://doi.org/10.1111/j.1471-6402.2006.00310.x
- Lampman, C., Rolfe-Maloney, B., David, E. J., Yan, M., McDermott, N., Winters, S., Davis, J., & Lathrop, R. (2002). Messages about sex in the workplace: A content analysis of primetime television. *Sexuality and Culture*, 6, 3–21. https://doi.org/10.1007/BF02719213

- Lee, K., & Ashton, M. C. (2008). The HEXACO Personality Factors in the Indigenous Personality Lexicons of English and 11 Other Languages. *Journal of Personality*, 76(5), 1001–1054. https://doi.org/ 10.1111/j.1467-6494.2008.00512.x
- Lee, K., & Ashton, M. C. (2012). The H factor of personality: Why some people are manipulative, selfentitled, materialistic, and exploitive—and why it matters for everyone. Wilfred Laurier University Press.
- Lee, K., Ogunfowora, B., & Ashton, M. C. (2005). Personality Traits Beyond the Big Five: Are They Within the HEXACO Space? *Journal of Personality*, 73(5), 1437–1463. https://doi.org/10.1111/j. 1467-6494.2005.00354.x
- Lindberg, S. M., Grabe, S., & Hyde, J. S. (2007). Gender, Pubertal Development, and Peer Sexual Harassment Predict Objectified Body Consciousness in Early Adolescence. *Journal of Research on Adolescence*, 17(4), 723–742. https://doi.org/10.1111/j.1532-7795.2007.00544.x
- Liss, M., Erchull, M. J., & Ramsey, L. R. (2011). Empowering or Oppressing? Development and Exploration of the Enjoyment of Sexualization Scale. *Personality and Social Psychology Bulletin*, 37(1), 55–68. https://doi.org/10.1177/0146167210386119
- Loughnan, S., Fernandez-Campos, S., Vaes, J., Anjum, G., Aziz, M., Harada, C., Holland, E., Singh, I., Puvia, E., & Tsuchiya, K. (2015). Exploring the role of culture in sexual objectification: A seven nations study. *Revue Internationale De Psychologie Sociale*, 28(1), 125–152.
- Lukaszewski, A. W., & Roney, J. R. (2011). The Origins of Extraversion: Joint Effects of Facultative Calibration and Genetic Polymorphism. *Personality and Social Psychology Bulletin*, 37(3), 409–421. https://doi.org/10.1177/0146167210397209
- Manago, A. M., Ward, L. M., Lemm, K. M., Reed, L., & Seabrook, R. (2015). Facebook Involvement, Objectified Body Consciousness, Body Shame, and Sexual Assertiveness in College Women and Men. Sex Roles, 72(1–2), 1–14. https://doi.org/10.1007/s11199-014-0441-1
- Martins, Y., Tiggemann, M., & Kirkbride, A. (2007). Those Speedos Become Them: The Role of Self-Objectification in Gay and Heterosexual Men's Body Image. *Personality and Social Psychology Bulletin*, 33(5), 634–647. https://doi.org/10.1177/0146167206297403
- McKinley, N. M., & Hyde, J. S. (1996). The Objectified Body Consciousness Scale. Psychology of Women Quarterly, 20(2), 181–215. https://doi.org/10.1111/j.1471-6402.1996.tb00467.x
- Miner-Rubino, K., Twenge, J. M., & Fredrickson, B. L. (2002). Trait Self-Objectification in Women: Affective and Personality Correlates. *Journal of Research in Personality*, 36(2), 147–172. https:// doi.org/10.1006/jrpe.2001.2343
- Mintz, L. B., & O'Halloran, M. S. (2000). The eating attitudes test: Validation with DSM-IV eating disorder criteria. *Journal of Personality Assessment*, 74(3), 489–503. https://doi.org/10.1207/S1532 7752JPA7403_11
- Nelson, A. (2000). Halloween Costumes and Gender Markers. Psychology of Women Quarterly, 24(2), 137–144. https://doi.org/10.1111/j.1471-6402.2000.tb00194.x
- Paulhus, D. L., & Williams, K. M. (2002). The dark triad of personality: Narcissism, Machiavellianism, and psychopathy. *Journal of Research in Personality*, 36(6), 556–563. https://doi.org/10.1016/ S0092-656(02)00505-6
- Pellizzer, M., Tiggemann, M., & Clark, L. (2016). Enjoyment of Sexualisation and Positive Body Image in Recreational Pole Dancers and University Students. Sex Roles, 74(1–2), 35–45. https://doi.org/10. 1007/s11199-015-0562-1
- Peterson, Z. D. (2010). What Is Sexual Empowerment? A Multidimensional and Process-Oriented Approach to Adolescent Girls' Sexual Empowerment. Sex Roles, 62(5–6), 307–313. https://doi.org/ 10.1007/s11199-009-9725-2
- Plant, R. W., & Ryan, R. M. (1985). Intrinsic motivation and the effects of self consciousness, self-awareness, and ego-involvement: An investigation of internally controlling styles. *Journal of Personality*, 53(3), 435–449. https://doi.org/10.1111/j.1467-6494.1985.tb00375.x
- Radnofsky, C. (2021, July 20). Norwegian women's beach handball team fined for not playing in bikinis. NBC News. https://www.nbcnews.com/news/sports/norwegian-women-s-beach-handball-teamfined-not-playing-bikinis-n1274453
- Rodriguez, N. N., & Lukaszewski, A. W. (2020). Functional coordination of personality strategies with physical strength and attractiveness: A multi-sample investigation at the HEXACO facet-level. *Journal of Research in Personality*, 89, 104040. https://doi.org/10.1016/j.jrp.2020.104040
- Rollero, C., & De Piccoli, N. (2017). Self-Objectification and Personal Values An Exploratory Study. Frontiers in Psychology, 8, 1–8. https://doi.org/10.3389/fpsyg.2017.01055

- Rothbart, M. K. (2007). Temperament, development, and personality. Current Directions in Psychological Science, 16(4), 207–212. https://doi.org/10.1111/j.1467-8721.2007.00505.x
- Schmitt, D. P., & Buss, D. M. (2000). Sexual Dimensions of Person Description: Beyond or Subsumed by the Big Five? *Journal of Research in Personality*, 34(2), 141–177. https://doi.org/10.1006/jrpe. 1999.2267
- Sergi, I., Gnisci, A., Senese, V. P., & Perugini, M. (2020). The HEXACO-Middle School Inventory (MSI). European Journal of Psychological Assessment, 36(4), 681–693. https://doi.org/10.1027/ 1015-5759/a000538
- Stankiewicz, J. M., & Rosselli, F. (2008). Women as Sex Objects and Victims in Print Advertisements. Sex Roles, 58(7–8), 579–589. https://doi.org/10.1007/s11199-007-9359-1
- Torres-Marín, J., Moya-Garófano, A., & Carretero-Dios, H. (2020). Beyond the HEXACO model: The fear of being laughed at as a predictor of body image. *Current Psychology*. https://doi.org/10.1007/ s12144-020-00923-w
- Vandenberg, R. J., & Lance, C. E. (2000). A review and synthesis of the measurement invariance literature: Suggestions, practices, and recommendations for organizational research. *Organizational Research Methods*, 3(1), 4–70. https://doi.org/10.1177/109442810031002
- Visser, B. A. (2018). Narcissism and the Big Five/HEXACO Models of Personality. In A.T. Hermann, A.B. Brunell, & J.D. Foster (Eds.), *The Handbook of Trait Narcissism: Key Advances, Research Methods, and Controversies.* Springer
- Visser, B. A., Sultani, F., Choma, B. L., & Pozzebon, J. A. (2014). Enjoyment of sexualization: Is it different for men? *Journal of Applied Social Psychology*, 44(7), 495–504. https://doi.org/10.1111/jasp. 12241
- Ward, L. (2003). Understanding the role of entertainment media in the sexual socialization of American youth: A review of empirical research. *Developmental Review*, 23(3), 347–388. https://doi.org/10. 1016/S0273-2297(03)00013-3
- Ward, L. M., Seabrook, R. C., Manago, A., & Reed, L. (2016). Contributions of diverse media to selfsexualization among undergraduate Women and Men. Sex Roles, 74(1–2), 12–23. https://doi.org/10. 1007/s11199-015-0548-z
- Winn, L., & Cornelius, R. (2020). Self-objectification and cognitive performance: A systematic review of the literature. *Frontiers in Psychology*, 11, 20. https://doi.org/10.3389/fpsyg.2020.00020
- Wright, R., & McCluskey, M. (2021). Germany's gymnasts wear body-covering unitards, rejecting "sexualization" of sport. CNN.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.