



(No) Shame in the Game: The Influence of Pornography Viewing on Attitudes Toward Transgender People

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The current study employs an online survey of viewers of pornography featuring transgender performers (N = 250) to investigate the relationship between pornography consumption and attitudes toward transgender people. Results demonstrated a statistically significant but substantively weak association between greater pornography viewing and more positive attitudes toward transgender people. Additionally, results demonstrated that viewers' experience of shame about their sexual attractions to transgender people did not moderate the relationship between porn viewing and attitudes. However, analysis revealed an unhypothesized direct influence of sexual shame on attitudes toward transgender people such that higher levels of shame were associated with greater prejudice. Results are discussed in the context of sexual scripting and the revived porn debates. Further longitudinal research focusing on how the feelings viewers have about the pornography they view impacts erotic media's effects is encouraged.

Keywords: *Media Effects; Pornography; Prejudice; Survey; Transgender*

The heated scholarly arguments on pornography's potential social harmfulness that raged in communication and social psychology in the 1980s and 1990s—often called the “porn debates”—have passed (Attwood & Smith, 2014), but pornography now experiences a cultural ubiquity and ease of availability unparalleled in human history,

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even compared to the peak of the porn debates. Consequently, scholars have dedicated renewed attention, particularly in the domain of media effects, to the social influences of erotic media.

Pornography is important symbolic territory; in no other form of media are human sexuality and the sexual relations of genders so directly addressed. But the heightened prevalence of alternative pornographic genres in the digital age, such as “feminist” porn, user-generated “amateur” porn, and (the derogatorily named) “tranny” or “she-male” porn, has complicated the old debates (Tibbals, 2014). Accordingly, scholars of both critical and social scientific orientations have reopened debate on issues of gender relations (particularly between cisgender [i.e., nontransgender] men and women), as well as on issues of fetishization regarding race and ethnicity, sexual orientation, and, recently, transgender identities. These debates have considered not only the cultural politics of representation but also the presumed and demonstrated effects of such representation on viewers’ attitudes and behaviors (Attwood, 2010).

The effects of pornographic representations are especially significant for transgender people, as transgender individuals are, and long have been, highly visible in pornography in ways they have not been visible in mainstream (nonerotic) media until very recently (Escoffier, 2011; cf. Billard, 2016; Capuzza & Spencer, 2018). Furthermore, transgender porn is consistently among the most popular genres of pornography consumed online in the United States (Ogas & Gaddam, 2011; Redtube, 2016). Thus, social scientists’ relative inattention to this genre represents a large gap in the existing literature on the effects of erotic media and in the revived porn debates. The present study aims to address this gap and, in doing so, revisit the central question of the porn debates: Is pornography viewing associated with negative social attitudes?

Revisiting the Porn Debates, Rethinking Porn Effects

Early research on pornography generally maintained that exposure to erotic media has strongly antisocial effects, ranging from increasing sexism to rape myth acceptance to interpersonal violence (e.g., Donnerstein & Hallam, 1978; Malamuth & Check, 1985; Malamuth & Donnerstein, 1982; Malamuth, Heim, & Feshback, 1980; Zillmann & Bryant, 1982, 1988; Zillmann, Bryant, & Carveth, 1981). Yet while some research has continued to find antisocial effects of pornography—including increasing acceptance of violence against women (Malamuth, Hald, & Koss, 2012), gender role stereotypes (Peter & Valkenburg, 2011a), risky sexual behavior (Peter & Valkenburg, 2011b), and aggression (Wright, Tokunaga, & Kraus, 2016)—much recent research has found that pornography viewing is also associated with more positive social attitudes, particularly pertaining to sex and sexuality (e.g., Wright & Bae, 2013; Wright & Randall, 2014; Wright, Tokunaga, & Bae, 2014). For example, several studies have shown that pornography consumption is associated with more accepting attitudes toward abortion and sexual liberalism (Wright & Tokunaga, 2018) and adolescent access to birth control (Wright & Bae, 2015). (Of course, pornography can simultaneously produce

antisocial effects and be associated with prosocial outcomes, as pornography can influence different attitudes and behaviors in different ways.)

The literature on pornographic media effects generally maintains that viewers are influenced via “sexual scripting” (Linz & Malamuth, 1993). That is, in line with an information-processing model of media effects (Huesmann, 1986), exposure to erotic media “maps” pornographic scripts onto viewers’ social attitudes (e.g., Wright & Bae, 2013; Wright & Randall, 2014). In perhaps the most comprehensive synthesis of this process, Wright (2011) proposed the Activation, Acquisition, and Application Model (3AM), which maintains that erotic media provide viewers new sexual scripts (acquisition), prime existing sexual scripts (activation), and “encourage the utilization of sexual scripts by portraying particular sexual behaviors or general patterns of sexual behavior as normative, acceptable, and beneficial (application)” (Wright & Randall, 2014, p. 668). Studies employing this model have indeed found that exposure to pornography influences script application “at the level of judgment,” impacting viewers’ attitudes toward sexual minorities and their civil rights (Wright & Randall, 2014, p. 668; see also Wright & Bae, 2013; Wright et al., 2014). Therefore, in line with this model, we hypothesized:

H1: *Greater frequencies of viewing pornography featuring transgender performers will be associated with more positive attitudes toward transgender men and women.*

However, research on the effects of pornographic media has also shown that demographic and personality trait differences moderate the effects of exposure (e.g., Golom & Mohr, 2011; Malamuth & Check, 1985; Malamuth et al., 2012; Wright et al., 2014). For instance, Malamuth et al. (2012) found that the relationship between pornography exposure and attitudes supporting violence against women among male respondents was moderated by their risk for sexual aggression. Similarly, Golom and Mohr (2011) found that the relationship between exposure to homoerotic pornography and attitudes toward gay men was moderated by levels of sexual anxiety such that participants who were more sexually anxious had more positive postexposure attitudes, while less anxious participants had more negative attitudes.

In the context of attitudes toward transgender men and women, one relevant moderating variable might be levels of *sexual shame*. Indeed, cisgender people who experience sexual attraction to transgender people are frequently shamed and subsequently marginalized in contemporary American society (Gerico, 2015), and the sexual and romantic lives of transgender people are often marred by their partners’ experienced shame (Lloyd & Finn, 2017). Moreover, research has shown that experiencing shame about one’s sexual attractions can influence one’s sexual behaviors and, by extension, likely one’s attitudes as well (Christensen et al., 2013; Park et al., 2014). Specifically, Christensen et al. (2013) and Park et al. (2014) have both found that, among men who have sex with men, experiencing greater sexual shame increases the likelihood of engaging in unprotected anal intercourse, even when exposed to a simulated learning environment containing pro-safe-sex messages. Following the implications of these findings, we further hypothesized:

H2: *The relationship between viewing pornography featuring transgender performers and attitudes toward transgender men and women will be moderated by individuals' amount of shame about their sexual desire for transgender people.*

Method

To investigate these hypotheses, we conducted an online survey study of transgender pornography viewers. As Gross (1983) compellingly argued, experimental studies of pornography's effects—particularly when those effects may be antisocial—are rife with ethical quandaries. For instance, if exposure to pornography does indeed have lasting antisocial effects on viewers that cannot be overcome with a simple postexperiment debriefing, as has long been argued (Zillmann & Bryant, 1982, 1988; Zillmann et al., 1981), then incentivizing participants to view pornography constitutes an act of deliberate harm to those participants (and those toward whom their social attitudes have been made more negative). Thus, employing a method in which participants have chosen to expose themselves to pornographic materials without researcher intervention or incentivization ensures that the research process causes little, if any, (additional) harm to participants.

Participants

Participants ($N = 287$) were recruited online from Reddit, a popular social content aggregation, sharing, and discussion site. Recruitment posts were made, with moderator approval, to 12 “subreddits,” or topical forums within Reddit, dedicated to transgender pornography (e.g., r/tgirls, r/BoltedOnTS, etc.). Reddit was chosen as the site of recruitment because prior research has demonstrated how effective it can be for sampling from small, difficult to identify, or otherwise hard-to-target populations (see Shatz, 2017). Participants were required to be residents of the United States aged 18 or above and were offered entry into a drawing as compensation.

From the initial pool of 287 participants, 37 were eliminated because they identified as transgender.¹ However, because only 60 participants viewed porn featuring transgender men performers, compared to 236 who viewed porn featuring transgender women (46 participants viewed both), we chose to focus our study exclusively on the relationship between pornography viewing and social attitudes toward transgender women, leaving a final sample of $N = 236$. Ages of participants ranged from 18 to 66 ($M = 26.39$, $SD = 7.86$). Nearly all (98%) participants identified as cisgender men. Most participants identified as heterosexual (69%), White (83%), and nonreligious (66%). Participants' years of formal schooling ranged from 1 to 24 ($M = 14.32$, $SD = 2.91$).

Measures

Demographics

Participants were asked to provide information about their age, education level, gender identity, religiosity, and political orientation. To measure religiosity, participants were asked to identify how many days in the last month they had attended religious services ($M = .56$, $SD = 2.44$). To measure political orientation, participants were also asked to

identify their political orientation on two unmarked bipolar sliding scales—from Democrat (0) to Republican (10) and from Liberal (0) to Conservative (10)—which by default rest in the center. These two scores were averaged to create a single measure of political orientation ($M = 3.77$, $SD = 2.56$) and tested for reliability via the Spearman-Brown formula ($\rho = .86$). Participants were also asked how many individuals in their family, close circle of friends, and place of work identify as transgender men ($M = .23$, $SD = .77$) and transgender women ($M = .42$, $SD = 1.00$).

Pornography consumption

Pornography consumption was measured in two steps. First, participants were asked how many days in an average month they view pornographic images or videos ($M = 23.69$, $SD = 7.15$). Second, participants were asked separately how many days in an average month they view pornographic images or videos featuring transgender women ($M = 16.71$, $SD = 9.41$) and transgender men ($M = 2.44$, $SD = 6.68$). Such monthly measures are consistent with prior studies of sexually explicit media consumption (e.g., Brown et al., 2006) and were chosen in favor of more common hours-of-exposure measures; considering that the average session of online pornography viewing in the United States is only approximately 10 minutes (Pornhub, 2016; Tyson, Elkhatib, Sastry, & Uhlig, 2013), participants would likely have difficulty accurately calculating their viewing hours. While social desirability bias may have affected participants' responses, the fact that they were recruited from online communities dedicated to pornography makes it less likely that they would feel compelled to conceal their viewing habits.

Sexual shame

Items from Andrews, Qian, and Valentine's (2002) Experience of Shame Scale (ESS) were adapted to develop a measure of sexual shame specific to the present study. The ESS follows a general pattern of four questions ("have you felt ashamed," "have you worried about what other people think," "have you tried to cover up or conceal," and "have you avoided people who know") asked about various situations, such as saying something "stupid" and "failing in a competitive situation." For our measure, each of these four questions was asked (1) about viewing pornography featuring transgender women/men performers and (2) about having sexual desire for transgender women/men, resulting in a final scale of eight items. Participants who indicated experiencing attraction to transgender women were presented the eight-item scale pertaining to transgender women, while those who indicated experiencing attraction to transgender men were presented the eight-item scale pertaining to transgender men. Participants who indicated experiencing attraction to both transgender men and transgender women received both eight-item scales separately. Response options ranged from 1 (*not at all*) to 4 (*very much*). The eight items of the adapted sexual shame measure for transgender women were tested for reliability ($\alpha = .91$, $\omega_h = .78$)² and averaged to create a single scale. Sexual shame items

for transgender men were tested for reliability ($\alpha = .92$, $\omega_h = .74$) and averaged to create a separate scale.

Attitudes toward transgender men and women

Both subscales of the 24-item Attitudes Toward Transgender Men and Women (ATTMW; Billard, 2018) scale were included in the questionnaire. Higher ratings on the scale indicate greater levels of prejudice against transgender men and women. The 12 items of the Attitudes Toward Transgender Men (ATTM) subscale were tested for reliability ($\alpha = .96$, $\omega_h = .93$) and averaged to create a single scale, while the 12 items of the Attitudes Toward Transgender women (ATTW) subscale were tested for reliability ($\alpha = .97$, $\omega_h = .93$) and averaged to create a separate scale.

Missing data

One participant in the sample of $N = 236$ failed to provide a score for religiosity, while 15 participants failed to provide a score for the item of the modified ESS asking about having tried to cover up or conceal their consumption of pornography featuring transgender women. Rather than deleting respondents with missing data listwise, we used the “hotdeck” package in the statistical program R (Kowarik & Templ, 2016) to run multiple imputation. As noted by King, Honaker, Joseph, and Cheve (2001), such an approach introduces less bias into the data than listwise deletion.

Procedure

Invitations to the study were posted on various subreddits dedicated to transgender pornography, which redirected prospective participants to the online questionnaire. Participants were then administered a questionnaire consisting of demographic measures, measures of pornography consumption, sexual shame measures, and the ATTMW (see supplemental materials at <http://osf.io/sgzp7>). Those who completed the questionnaire were subsequently redirected to a separate survey where they could choose to submit their e-mail address for entry into the prize drawing. Average completion time for the full study was 8 minutes.

Results

To test our first hypothesis that viewing pornography featuring transgender women performers would be associated with more positive attitudes toward transgender women, we ran a stepwise ordinary least squares (OLS) regression with attitudes toward transgender women as the dependent variable.³ Demographic variables and the number of transgender women known were added as independent variables in the first step, followed by pornography viewing in the second step and sexual shame in the final step. As shown in Table 1, consumption of pornography featuring transgender women performers was negatively associated with attitudes toward transgender women ($\beta = -0.125$, $p < .01$)

such that viewing *more* pornography was associated with *less* prejudiced attitudes. However, the change in adjusted R^2 for the step adding pornography viewing into the regression was nonsignificant, indicating that the amount of variance explained by adding porn viewing into the model was not substantively greater than the amount explained by the model without porn viewing. Moreover, comparing β coefficients, pornography consumption's negative effect on prejudice was much smaller than the positive effects of both sexual shame ($\beta = 0.285$) and political orientation ($\beta = 0.424$), which were each associated with significantly ($p < .001$) more prejudicial attitudes toward transgender women. Thus, our first hypothesis was not supported.

To test our second hypothesis that the relationship between pornography consumption and attitudes toward transgender women would be moderated by individuals' level of shame about their sexual desire for transgender women, we used Hayes's (2013) PROCESS macro in SPSS (Model 1; 95% confidence interval). As shown in Table 2, pornography consumption had a nonsignificant association with attitudes toward transgender women, while sexual shame ($b = 0.728$) was strongly and significantly associated. Moreover, the interaction of pornography consumption and sexual shame was not significantly associated with attitudes, meaning shame did not moderate the effect of pornography on attitudes. Thus, our second hypothesis was also not supported. Though not hypothesized, these results do, however, offer evidence that among viewers of transgender pornography sexual shame is an important *direct* influence on attitudes toward transgender women.

Table 1 Summary of Regression Analysis for Variables Predicting Attitudes Toward Transgender Women ($N = 236$)

Variable	β	b (SE)	95% CI
<i>Block 1: Demographics</i>			
Age	-0.051	-0.010 (0.012)	[-0.033, -0.012]
Education	0.048	0.026 (0.031)	[-0.034, 0.087]
Political orientation	0.424***	0.263 (0.035)	[0.195, 0.332]
Religiosity	-0.058	-0.037 (0.035)	[-0.106, 0.032]
Transgender women known	-0.049	-0.077 (0.089)	[-0.252, 0.098]
Δ Adjusted R^2		.234***	
<i>Block 2: Pornography consumption</i>			
Porn viewing frequency (transgender women)	-0.125*	-0.021 (0.009)	[-0.039, -0.003]
Δ Adjusted R^2	.008		
<i>Block 3: Sexual shame</i>			
Experience of sexual shame (transgender women)	0.285***	0.523 (0.105)	[0.317, 0.729]
Δ Adjusted R^2		.072***	
Total Adjusted R^2		.312***	

Note. CI = confidence interval. Cell entries are final-entry OLS coefficients.
 * $p < .05$; ** $p < .01$; *** $p < .001$.

Table 2 Moderation Effect of Sexual Shame on the Relationship between Pornography Viewing and Attitudes Toward Transgender Women ($N = 236$)

Variable	b (SE)	95% CI	p
Sexual shame (transgender women)	0.728 (0.216)	[0.303, 1.152]	.001
Pornography consumption (transgender women)	-0.016 (0.027)	[-0.069, 0.037]	.558
Sexual shame x Pornography consumption	-0.001 (0.011)	[-0.023, 0.022]	.968
Adjusted R^2	.157		
F	14.386		< .001

Note. CI = confidence interval.

Discussion

In this study, we found statistically significant but substantively negligible associations between pornography consumption and attitudes toward transgender people while finding highly significant and substantively large associations between shame about sexual attractions to transgender people and attitudes. These results expand our understanding of the factors that underlie antitransgender prejudice, while challenging our understanding of the influence of pornography viewing on social attitudes. Specifically, our results add evidence to suggest that pornography has only limited influence on viewers and their attitudes compared to social factors.

Within the fields of social psychology and communication, there is significant debate about potential pro- or antisocial effects for pornography viewing, and our results indicate perhaps this is the wrong question to ask. While we found that pornography consumption was significantly negatively associated with antitransgender prejudice in the overall model, it did not by itself contribute significantly to the variance explained by the model. Rather, we found evidence of an unhypothesized direct influence of viewers' experiences of shame about their sexual desires for the pornographic performers on their attitudes such that higher levels of shame were significantly associated with increased prejudice. We further found political conservatism to be highly associated with increased prejudice, as has previous research (e.g., Norton & Herek, 2013), and this association was larger even than that between shame and prejudice. These results may represent the failure of the transgressive pornographic sexual script (Linz & Malamuth, 1993; Wright, 2011) that normalizes transgender attractions to overcome the conservative *cultural* sexual script that insists such attractions are shameful (Gerico, 2015; Lloyd & Finn, 2017), thereby resulting in a nominal positive influence of pornography viewing that explains no added variance compared to the negative influences of sexual shame and political orientation that explain significant portions of the variance.

Thus, at least among viewers of transgender pornography, our results suggest that pornography consumption is less influential on attitudes than *the feelings viewers' have about the pornography*. More broadly, this suggests that the pornography itself is of much less consequence than the *social context* in which it is consumed, which points to a further need for understanding how porn literacy—an increased understanding of the

production contexts and cultural consequences of erotic media via educational intervention—can shape the social effects of viewing by transforming the cultural scripts pornography’s scripts are mapped onto (Vandenbosch & van Oosten, 2017).

We must of course consider that our study is limited in many ways, and thus these results may not be wholly generalizable. For example, due to the small number of viewers of pornography featuring transgender men performers (which seems consistent with real-world viewing patterns; Redtube, 2016), our study only investigated the influence of pornography on attitudes toward transgender women. Considering how particular the shaming of those attracted to transgender women is in American culture (Gerico, 2015; Lloyd & Finn, 2017), we may have had different findings among a sample of viewers attracted to transgender men. Additionally, in restricting our sample to only American adults, we cannot hope to generalize the observed effects cross-nationally, while the convenience nature of the sample prohibits generalization of our findings.

Significantly, our study only included those who view transgender pornography and measured *how much* they viewed as the independent variable. We may have seen stronger effects if our sample included both people who do and do not view transgender pornography, rather than only people with different viewing amounts. Finally, while our survey method offered better ecological validity (and fewer ethical concerns) than an experiment would have, we cannot be certain of the causal nature of the relationships among variables. Thus, further studies—preferably longitudinal—are necessary to confirm the causal links between pornography exposure and attitudes toward transgender people.

Notes

- [1] Transgender participants were excluded to prevent the blurring of effects on (a) attitudes toward transgender people, and (b) transgender individuals’ self-concept in the analysis of results.
- [2] In addition to Cronbach’s alpha, reliabilities were assessed via hierarchical omega (*ω_h*), which offers a more robust assessment of scale reliability and internal consistency (Peters, 2014).
- [3] Multicollinearity diagnostics (tolerance scores > .89, VIF scores < 1.20) indicated that multicollinearity did not influence the results of the regression reported in Table 1.

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