Relationships and Infidelity in Pornography: An Analysis of Pornography Streaming Websites

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Abstract

Research suggests that pornography has the potential to inform sexual and romantic scripts, but no studies have examined the relational content within modern mainstream pornography. In this article, we present a content analysis of 190 sexually explicit online video clips from mainstream pornography streaming websites, coding for the relationship between participants (if any) and whether the video portrayed acts of infidelity. We also contrasted those clips with a comparison sample of 77 YouTube videos. We found that depictions of on-screen committed relationships were relatively rare in pornography (7.9% of videos) compared to YouTube (18.2%), but that infidelity was relatively common (25.3% vs. 2.6%), with pornography more likely to depict women as engaging in infidelity than men. Relational content was more likely to be included in a pornographic clip when the video portrayed a fictional narrative. These findings are consistent with past research connecting pornography consumption with open and liberal sexuality.

Keywords: casual sex, content analysis, infidelity, pornography

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If individuals learn from observing the behavior of others (Bandura, 1969), it is worth asking what individuals learn about relationships when watching other people have sex. Tens of millions regularly consume sexually explicit media in the United States (Chen, 2010), and such media have been presumed (with some evidence) to inform the sexual behavior of those who view it (e.g., Gwinn, Lambert, Fincham, & Maner, 2013; Lambert et al., 2012). This idea has led researchers to examine the content of pornographic videos (Cowan & Campbell, 1994; Bridges et al., 2010; Gossett et al., 2002, Palys, 1986; Vannier, 2014; Jensen & Dines, 1998), generally focusing on how sexual partners treat each other on-screen (e.g., violence between partners). These studies often neglect the romantic ties that may or may not connect those sexual partners. In this article, we analyze videos clips from two of the most popular pornography streaming websites (PornHub & xVideos; Alexa Internet, 2018), comparing them with a sample of non-pornographic videos from YouTube. We examine the types of sexual and romantic relationships that these videos portray (e.g., whether they were married, dating, were friends, or had just met), as well as how and how often they portray acts of infidelity.

Sexual script theory (Gagnon & Smith, 1973) posits that sex and relationships are informed by sexual scripts—cultural and interpersonal cues about normative sexual behavior (e.g., what one should be turned on by or what sexual positions one should try). Pornography is a ready source of such cues. Researchers have found well-supported links between exposure to pornography and a number of relational outcomes, including one-night stands (Braithwaite, Coulson, Keddington, & Fincham, 2015), the number of sexual partners (Rasmussen & Bierman, 2017), extradyadic flirting (Lambert et al., 2012; Gwinn et al., 2013), extramarital sex (Wright, 2012), and divorce (Daines & Shumway, 2011; Perry & Davis, 2017). Despite these findings, some see pornography's influence on sexual scripts as positive for relationship health, providing

individuals with healthy sexual and relational scripts that would improve sexual communication and satisfaction (Sherman, 1995).

Since pornography is intended to induce sexual arousal (Rasmussen, 2016), we could expect that those who produce pornography would choose content that viewers find sexually arousing. There is some evidence that viewers find depictions of casual sex more arousing than sex between partners with an emotional connection (Fisher & Byrne, 1978; Timmers & Chivers, 2018). As such, we could expect pornography to eschew relational sex in favor of more elicit sexual encounters. Pornography might also tend to express taboo sexual fantasies (Kipnis, 2014), which, relevant to the present study, might include depictions of infidelity (Swedberg, 1989). We also explore the kinds of pornographic material that may be likely to include relational content. For instance, some pornographic videos include a fictional narrative—some sort of story that sets the scene for the sexual encounter. In establishing these narratives, pornographic material might be more likely than videos without these narratives to include relational information, cues that might otherwise be rare in the relatively brief clips on streaming websites.

In examining the relational content contained in pornography, it would be essential to compare that content with what viewers might encounter elsewhere on the internet, particularly on sites with more mainstream content. Though there are various media that could serve as a comparison to pornography streaming websites, we felt that YouTube, the most popular video streaming service worldwide (Tran, 2017), would provide the most meaningful comparison. YouTube competes with pornography steaming websites for users' time and attention, and, like pornographic sites, features relatively short user-submitted clips, has limited editorial oversight, includes a mix of professionally produced and amateur content, and can be consumed by users for free on the internet.

Few have systematically examined the content of pornography for signs of relationship-oriented messages. One early study examining pornographic movies from 1979-1988 found that pornography was much more likely to show sex between strangers or casual acquaintances than between committed romantic partners, with this trend strengthening for more recent videos (Brosius, Weaver, & Staab, 1993). That study did not document the frequency and nature of infidelity in pornographic films, content made relevant by recent studies connecting pornography with extramarital sex and divorce (Perry & Davis, 2017). Its findings also may not apply well to modern pornography, much of which is consumed through online streaming services (Chen, 2010). The brief clips on such sites might provide less information about relationships than the full-length pornographic movies of decades past.

The present study contributes to the literature in several ways. Our study provides an important update to previous content analysis of pornography's relational content (Brosius, Weaver, & Staab, 1993), studying that content in the context of modern pornography-streaming websites. It will be the first to estimate the frequency of infidelity in pornographic material and the first to compare it directly with more mainstream material. Our analysis may also provide important clues about where to look for relational content in pornography. If, as we predict, relational content is more common in videos that have fictional narratives, pornographic genres that tend to have narrative development (e.g., full-length movies or feminist pornography; Young, 2014) might be more likely to include relational content, and perhaps more likely to inform relational scripts, than those that tend to lack an explicit narrative (e.g., homegrown or amateur pornographic productions; Van Doorn, 2010).

Method

In the present study, we aimed to assess a sample of pornographic video clips available on two of the world's largest pornographic video sharing websites, www.pornhub.com and www.xvideos.com, as well as a sample of YouTube clips. Given the lack of editorial oversight on these websites, it is important to not randomly sample from their contents, as such could skew the sample toward niche material that few watch or find appealing. Previous content analyses of pornographic sites have sampled from the "Most Viewed" section, which sorts clips by those that have been viewed most in the previous month (Klaassen & Peter, 2015; Bridges et al., 2010). Unfortunately, as the xVideos site does not have this feature, we decided to sample from the highest rated videos on each site (i.e., the "Top Rated" section of PornHub and the "Best Videos" section of xVideos), which sorts clips by those that have received the highest proportion of "thumbs up" vs "thumbs down" responses from viewers in the last month. Though YouTube no longer has an equivalent section for top rated videos, it does contain a "Trending" feature, which samples recent popular videos that have generated high levels of viewer engagement (YouTube Help, 2018). These sections would all tend to highlight material that a high percentage of viewers find appealing (Weaver, Zelenkauskaite, & Samson, 2012).

We created a coding manual for the purposes of this study that assessed a number of demographic and relational elements for each video. Demographic elements included the website of origin (i.e., xVideos, PornHub, or YouTube), the number of times the video had been viewed, whether the video was professionally produced or had been created by amateur participants, the length of the scene in minutes and seconds (this value was later converted to minutes as a decimal value), the number of sexual participants (i.e., those engaging in sexual activity in a given scene), whether the scene portrayed some kind of fictional narrative (i.e., where the actors are play a particular fictional role vs. representing themselves), and whether the

scene included same-sex sexual activity only. A number of relational elements were also coded as described later in this section.

For pornographic videos, coding occurred in July and August of 2017. The three coders (2 male, 1 female) assessed each clip in order of rating, beginning with the highest rated, selecting eligible clips for further coding. This is similar to approaches used in prior pornography-related content analyses (e.g., Klaassen & Peter, 2015). Clips were considered ineligible if they were solo sex scenes (included only one sexual participant), compilation videos (edited conglomerations of numerous sex scenes) or were greater than 35 minutes in length (a criteria chosen to prevent coder fatigue and to reduce the inclusion of full movie-length narratives, which we considered outside the scope of the study). Clip selection continued until 100 clips were included from each site (a sample size consistent with recent pornographic content analyses; e.g., Vannier, Currie, & O'Sullivan, 2014).

By the time the clips were coded several weeks later, 14 of the clips were no longer available on the site, and 4 of the videos contained multiple scenes that were individually coded (i.e., included more than one sexual encounter with each involving an altered set of participants; for example, if a clip portrayed a couple having sex, and that couple was later joined by an additional participant, the second portion was coded separately), resulting in a final sample of 190 coded scenes. These scenes (104 from xVideos, 86 from Pornhub) were 13.56 minutes long on average (SD = 7.30) had been viewed an average of 7,156,885 times (SD = 1.10×10^7). Most (88.7%) appeared to be professionally produced rather than created by amateur participants, and most appeared to show participants representing themselves (63.2%) rather than playing a fictional role (i.e., representing a fictional character in a narrative). In addition, most scenes

involved two heterosexual participants (76.8%), with a minority including more than two participants (35.4%) or involving exclusive same-sex sexual activity (7.89%).

YouTube videos were selected and coded in August 2018 in response to feedback from reviewers on a previous version of this manuscript. All videos present on the Trending section of YouTube were assessed for eligibility (a total of 80 videos), and the same eligibility criteria were applied (two compilation videos and one videos greater than 35 minutes in length were excluded) resulting in a final sample of 77 videos. YouTube videos were somewhat shorter on average than pornographic videos (M = 8.94 minutes, SD = 6.30), and had been viewed somewhat more often (M = 11,754,337, $SD = 2.78 \times 10^7$). Similar proportions of YouTube videos appeared to be professionally produced (81.8%) and did not include fictional narratives (75.3%) relative to pornographic videos.

Participant relationships. For pornographic videos, coders used a set of categorical variables to record any indication of relationships between sexual partners in the scene. Categories were mutually exclusive for each sexual dyad--coders were instructed to select only one category for each given potential sexual dyad between participants (e.g., for two participants, there would be only one dyad; for four participants, there would be a potential six dyads--some might be dating, some might have just met, and some might have met before but are not in a romantic relationship). Coders did not include relationships between people who did not engage in sexual activity with each other.

If there was indication that participants were meeting for the first time (e.g., they shook hands, they introduced themselves by name, etc.), coders indicated that these participants had *Just Met*. If there was indication that participants had met previously or were friends (e.g., they discussed past sexual encounters or other past shared experiences, they greeted each other

as if they already know each other, etc.), they indicated that participants were *Acquaintainces/Friends*. If there was indication that participants were in a dating relationship (e.g., they referred to each other as girlfriend/boyfriend, they were shown having gone on a date or discussing past dating experiences, etc.) coders indicated the participants were *Dating*. If there was indication that participants were married to each other (e.g., they referred to each other as husband/wife, the title of the video indicates that they were married, etc.) coders indicated they were *Married*. If there was not enough information in the clip to infer any of these relationship types, coders selected a category of *NEI* (not enough information).

These codes were also applied to YouTube videos, though the lack of explicit sexual content in those videos required a somewhat different approach to coding. We allowed for the possibility that a YouTube video could contain *No Relational Information* at all (i.e., some videos contained no reference to sexual or romantic relationships and did not indicate that the participants in the videos were engaged in such relationships), something which, by definition, could not occur for eligible pornographic videos. As in pornographic videos, if there was some indication that individuals shown or referred to in the videos were dating or married to someone, were seeking some sort of sexual or romantic relationship with individuals they had just met or were acquaintances with, or showed or mentioned dyadic sexual or romantic activity without including enough information to indicate the nature of that relationship, such videos received the associated codes.

Extrarelational sex. Coders indicated that a scene included extrarelational sex if there was evidence that at least one of the sexual participants was in a romantic relationship with someone not present in the sexual encounter. They also indicated whether the individual or individuals engaging in extrarelational sex were *Dating Someone Else* (e.g., they mentioned

having a boyfriend or girlfriend not present) or *Married to Someone Else* (e.g., they mentioned being married or having a husband or wife not present in the scene). Coders could also make these distinctions based on the title or description of the clip (e.g., one title read "sneaking away to f*** friend's husband"). If a scene was categorized as including extrarelational sex, coders also recorded several other pieces of information, including the number and gender of participants who engaged in extrarelational sex, as well as the number and gender of the people those participants engaged in sexual activity. Coders also indicated whether the extrarelational sex involved emotional infidelity (expressions of love, forming an emotional attachment, or of wanting to be in a long-term relationship with the other person) or if the extrarelational encounter only seemed to involve sexual activity.

We also coded YouTube videos for indications of extrarelational sexual or romantic activity. We coded a YouTube video as indicating extrarelational sex if participants mentioned themselves or anyone else engaging in a sexual or romantic relationship outside of their current dating or married relationship.

Extrarelational consent. We also wanted to acknowledge that some of the extrarelational sex depicted in pornography could be consensual, happening with the knowledge, encouragement, or even participation of an individual's partner. The coding manual attempted to capture such consensual non-monogamy (CNM) in several ways. First, coders indicated that a scene included CNM if scene participants were in a romantic relationship of some kind (I.e., dating or married) and were engaging in sexual activity in the same scene with someone outside the relationship. Second, if a scene was coded as including extrarelational sex, coders also indicated whether there was evidence that the non-present partner was consenting to that sexual activity (e.g., the person saying their partner does not care or that they are in an open

relationship) and whether the non-present partner did not or would not consent to that sexual activity (e.g., mentioning that their partner would be mad if they knew what they were doing, or some later indication that their partner was angry at them for having extrarelational sex).

The three coders were trained on these coding procedures and inter-rater reliability was calculated using a separate sample of 39 clips. Part of this sample consisted of 14 clips from the movie Marriage 2.0, a film chosen as it included a variety of complex relational and extrarelational content. Despite the complexity of the material, the coding exhibited acceptable levels of reliability ($\alpha = .74$ for pornographic videos, $\alpha = .89$ for YouTube videos) as measured by Krippendorff's alpha (Hayes & Krippendorf, 2007), suggesting that coding of the primary sample could proceed.

Results

Overall frequencies. We began by assessing how frequently various types of relational content were included in our sample. These frequencies are shown in Table 1. Note that frequencies for some variables may sum to more than 100%. In terms of the kinds of relationships we observed between sexual participants in pornographic videos, the most commonly coded response was a lack of information about how sexual participants were related (n = 101, 53.2%). This was followed by individuals who were acquaintances or friends (n = 49, 25.8%), individuals who had just met (n = 25, 13.2%), and individuals who were dating (n = 13, 6.8%), with the least common response being those who were married (n = 2, 1.1%). Of the 15 videos that showed sex between dating or married partners, 4 (3 dating, 1 married) involved sex with a third participant, implying consensual non-monogamy. Overall, these findings indicate that relational sex (i.e., that between dating or married partners), was depicted much less frequently than sex occurring outside of a romantic relationship.

Tables

Table 1

Frequency of Relational Content in Pornographic and YouTube Clips

	Pornographic Clips Total (N = 190)	YouTube Clips Total (N = 77)	χ^2	*p*
Participant Relationships				
Any relational information	89 (46.8%)	17 (22.1%)	14.04	<.001
Not enough information	101 (53.2%)	4 (5.2%)	52.83	<.001
No relational information	--	56 (72.7%)		
Participants just met	25 (13.2%)	2 (2.6%)	6.73	0.01
Participants were acquaintances or friends	49 (25.8%)	2 (2.6%)	19.07	<.001
Participants were dating	13 (6.8%)	8 (10.4%)	0.95	0.33
Participants were married	2 (1.1%)	6 (7.8%)	8.56	0.003
Extrarelational Sex				
Clip includes (or mentions) extrarelational sex	48 (25.3%)	2 (2.6%)	18.5	<.001
*Extrarelational participant dating someone else	15 (7.9%)	0 (0%)		
*Extrarelational participant married to someone else	37 (19.5%)	2 (2.6%)		
*Extrarelational sex was consented to by the partner	9 (4.7%)	0 (0%)		
*Extrarelational sex was not consented to	37 (19.5%)	2 (2.6%)		
*Extrarelational participant was male	17 (8.9%)	2 (2.6%)		
*Extrarelational participant was female	38 (20%)	0 (0%)		

Note: *Chi-square test not performed due to the small sample size of relevant clips.

The frequency of relational content in pornographic videos differed dramatically from that contained in YouTube videos. YouTube videos were substantially less likely to include relational information about participants--22.1% of YouTube videos (n = 17) included this

information, vs. 46.8% of pornographic videos (n = 89), $\chi^2(1) = 14.04$, $p < .001$. YouTube videos were also less likely to indicate sexual or romantic activity without including enough information to clarify the nature of that relationship, representing only 5.2% of YouTube videos (n = 4), $\chi^2(1) = 52.83$, $p < .001$. Despite the relative lack of relational content included in YouTube videos, committed relationships were still more common on YouTube than in the pornographic sample. A similar percentage of YouTube videos indicated dating relationships (n = 8, 10.4%), $\chi^2(1) = .95$, $p = .33$, but marital relationships were substantially more common (n = 6; 7.8%), $\chi^2(1) = 8.56$, $p = .003$. Overall, the probability that a YouTube video would indicate a committed relationship was more than double that of a pornographic video (18.2% vs. 7.7%). Indications of casual sexual or relational activity were also much less common than in pornography, with only two videos indicating a relationship between participants who had just met (2.6%), $\chi^2(1) = 6.73$, $p = .01$, and two indicating relationships between acquaintances or friends (2.6%), $\chi^2(1) = 19.07$, $p < .001$.

In terms of extrarelational sex, a substantial proportion of pornographic clips portrayed individuals who had a romantic partner who was not present in the scene (n = 48, 25.3%), which was substantially more common than in YouTube videos (n = 2, 2.6%), $\chi^2(1) = 18.50$, $p < .001$. Of the pornographic clips portraying extrarelational sex, only nine indicated that their partner consented to the sexual behavior, with the majority (n = 37) indicating that the partner was not or would not be consenting. No YouTube videos suggested consensual extrarelational activity. For only three clips was there not enough information to determine consent (1.6%). Interestingly, though sex between married partners was rare in pornography, the majority of scenes showing extrarelational sex portrayed individuals who were married to someone else (n = 37 for pornographic videos, n = 2 for YouTube videos) with a minority who were dating individuals not

present in the scene (n = 15). Those engaging in extrarelational sex tended to have sex with only one individual, though a minority had sex with two (n = 3). Of note, there was no indication of emotional infidelity in scenes showing extrerelational sex, with no mention in any of the 48 scenes of individuals wanting to form a long-term relationship or of forming an emotional attachment. Regarding gender, women were more likely to be portrayed as engaging in extrarelational sex (n = 38) than were men (n = 17 for pornographic clips; 2 for YouTube videos), and while women occasionally engaged in extrarelational sex with other women (n = 5), men were never shown engaging in extrarelational sex with other men.

The role of narrative. Focusing specifically on pornographic clips, we conducted two chi-square tests comparing the frequency with which fictional and non-fictional narratives 1) had enough information for coders to infer a relationship between sexual participants, and 2) portrayed extrarelational sex. These frequencies are shown in Table 2. In terms of being able to infer a relationship between participants, videos that had a fictional narrative were significantly more likely to include enough information to infer any kind of relationship, $\chi^2(1) = 40.87$, $p < .001$, with 77.1 % of fictional narratives including that information versus 29.2% of non-fictional narratives. Such also applied to YouTube videos, where 47.4% of fictional narratives included relational information (n = 9), relative to 20.7% of non-fictional narratives (n = 12), $\chi^2(1) = 5.14$, $p = .02$. Fictional narratives in pornographic videos were also significantly more likely to include extrarelational sex, $\chi^2(1) = 35.92$, $p < .001$, with half doing so (50.0%), with only a minority of non-fictional narratives including extrarelational sex (10.8%). These differences aligned with our expectations, and are made even more relevant by the popularity of videos involving fictional narratives—pornographic videos with a fictional narrative received nearly double the pageviews on average (M = 10.4 million, $SD = 1.31 \times 10^6$) than their non-narrative

counterparts (M = 5.3 million, SD = 9.78 x 10^5), $t(112.25)$[1] = 2.87, p = .005. Taken together, these findings suggest that fictional narratives are more likely to include relational content than non-narrative clips. No other factors, including the length of the video or the website of origin, were significantly associated with the likelihood of a video including relational content.

Tables

Table 2

Comparing Relational Content in Fictional and Non-Fictional Pornographic Clips

	Fictional Narrative?			
	Yes (N=70)	No (N=120)	chisq	p
Participant Relationships				
Any relational information	54 (28.4%)	35 (18.4%)	40.87	<.001
Not enough information	16 (8.4%)	85 (44.7%)		
Participants just met	17 (8.9%)	8 (4.2%)	12.01	<.001
Participants were acquaintances or friends	33 (17.4%)	16 (8.4%)	26.41	<.001
Participants were dating	4 (2.1%)	9 (4.7%)	0.22	0.64
*Participants were married	1 (.5%)	1 (.5%)	--	--
Extrarelational Sex				
Clip includes extrarelational sex	35 (18.4%)	13 (6.8%)	35.92	<.001
*Extrarelational participant dating someone else	11 (3.7%)	4 (2.1%)	--	--
*Extrarelational participant married to someone else	28 (12.6%)	9 (4.7%)	--	--
*Extrarelational sex was consented to by the partner	7 (3.7%)	2 (1.1%)	--	--
*Extrarelational sex was not consented to	28 (14.7%)	9 (4.7%)	--	--
*Extrarelational participant was male	11 (5.8%)	6 (3.2%)	--	--
*Extrarelational participant was female	29 (15.3%)	8 (4.2%)	--	--

Note: *Chi-square test not performed due to the small sample size of relevant clips.

[1] Test does not assume equal variance.

Discussion

The purpose of this study was to assess the relational content contained in a sample of clips from mainstream pornography streaming websites, comparing them to a sample of YouTube videos. We suggested that pornographic videos showing sex between individuals in a romantic relationship (e.g., dating or married), would be less common than pornographic videos that do not, a suggestion strongly supported by the data. Pornographic clips portraying sex occurring within the context of a committed relationship were quite rare relative to YouTube videos (an important point, given the relative lack of any kind of relational or sexual content on YouTube), and even more rare than they appeared to be in previous content analyses. Also common in pornography were portrayals of extrarelational sex—that is, those in committed relationships who were shown having sex with individuals outside those relationships. In contrast with the relationships portrayed on-screen, most of those engaging in extrarelational sex were married to someone not in the scene, and only rarely did the absent partner consent to this activity. These findings suggest that infidelity, especially marital infidelity, is a frequent theme in mainstream pornography, which aligns well with the idea that such represents a common sexual fantasy. The relative lack of infidelity in YouTube videos[2] strengthens this conclusion.

Given pornography's relational content, we can consider what pornography might teach its consumers about relationships. Considering the degree to which sex is presented without a relational context, as well as specifically presented outside that context (e.g., sex with strangers), consumers might come to see casual sex as normative, exciting, or desirable. The same would likely be the case regarding infidelity. Both would be consistent with research connecting pornography consumption with permissive sexual scripts (Braithwaite et al., 2015; Wright,

[2] The only YouTube videos indicating infidelity were those referencing the infidelity of Paul Manafort, which came to light during his trial (Foer, 2018), a popular news item at the time of coding.

2012). The high proportion of videos that did not include relational content is itself interesting. If a majority of pornographic clips indicates nothing regarding the romantic connections between participants, it would support the contention of many, including some sex educators, who argue that pornography teaches little about how relationships are conducted in the real world (Flood, 2009).

It is interesting that women were twice as likely to be shown engaging in infidelity than were men, particularly since men are more than twice as likely as women to report doing so in real life (Atkins, Boucom, & Jacobson, 2001). This may suggest that a certain kind of infidelity narrative is particularly appealing to pornography viewers; as most mainstream pornography is targeted toward a male audience (Ciclitira, 2004; Ellis & Symons, 1990; Malamuth, 1996), it may indicate that men are more likely to fantasize about sex with otherwise unavailable women (e.g., a best friend's girlfriend; a boss's wife) than about cheating on their own partners. It is also consistent with depictions of women in pornography as sexually voracious, willing to do whatever necessary to please men sexually (Zillmann & Bryant, 1982), which might presumably include laying aside existing romantic commitments.

In terms of limitations, though our findings provide information about the relational messages sent by pornography, they say nothing about the effect of those messages or how consumers might interpret them. We do not know whether the relational information observed here serves to alter the behavior of consumers, though such could be inferred from the results of prior studies (Braithwaite et al., 2015; Zillmann & Bryant, 1988). Experimental work would be invaluable in this regard, such as research that carefully manipulates the relational content of specific videos and measures change in attitudes toward infidelity. We also do not know what participants assume about the relations between sexual partners in cases where relational

information is not explicitly presented. Though it is difficult to know what viewers might guess about such relationships when explicit cues are lacking, it might be reasonable for them to assume that they share little if any prior relationship, particularly when explicitly uncoupled sex is as common in pornography as suggested here. However, individuals accustomed to sex occurring primarily in the bounds of a committed relationship (e.g., religious individuals, Regnerus, 2007) might be prone to assume that sexual participants are romantically connected. Research that examines how consumers interpret pornography's relational content would be a welcome addition to the literature.

Also, because of our focus on streaming websites, we do not know for sure how other types of pornographic material might differ in their presentation of relational content. The mainstream pornography industry continues its prodigious production full-length movies, films which were not captured in the present analysis. There are also a large number of different genres within pornography (e.g., mature, ethnic, feminist, etc.) that may be more or less likely to include relational content than in our particular sample. However, our findings provide one important clue in this regard. Because clips that told a fictional narrative were much more likely to include relational content than those that did not, we might assume that the relational content in full-length videos or in a given genre might vary as a function of their propensity to include a fictional narrative. Though length itself was not a significant factor in the present study, full-length pornographic movies often market themselves based on a particular fictional narrative (e.g., parody videos; Booth, 2014), as might videos targeted toward women (Young, 2014). Future research targeting such genres would help illuminate these potential differences.

Despite our focus on YouTube as a comparison sample, there may be other kinds of samples that would provide an interesting counterpoint to the relational content of pornography.

Though casual sex and extrarelational content may be rare on YouTube, it may be more common in other types of online and offline content, such as Netflix, mainstream feature films (Bufkin & Eschholz, 2000), or prime-time television (Ward, 1995). The characteristics of YouTube made it an apt and relevant comparison in this case, but future research comparing pornography with these other formats would be useful and welcome. Also, our analysis here, though informative, relies on relatively simple frequency comparisons between groups. More complex research designs could make use of more complex analyses (e.g., multivariate response generalized linear models; Kim, Zhang, Day, & Zhou, 2018) to tease out differences between different kinds of pornographic and mainstream content.

Despite these limitations, the present study has several strengths that help it to contribute to the current literature on the content of pornographic material. It is the first study to systematically examine how pornography portrays acts of infidelity, and though it is not the first to examine the types of sexual relationships shown in pornography, it is the first to provide a modern look at such portrayals in the internet age. It is clear, however, that such behaviors are far from absent in the content of pornography streaming websites. Those who are concerned with the formation and stability of committed family units, including governments (e.g., Japan Times, 2015), family advocacy groups (e.g., Family Research Council, 2017), and many marital and family therapists (e.g., Brown et al., 2017), may see in our results support for pornography's potential to reify, reinforce, and perhaps even enshrine infidelity and casual sex. On the other hand, those who champion sexual freedom, sexual expression, and liberal sexual norms would likely applaud such portrayals, seeing them as tools with which to pry open the bars of monogamy and heteronormativity (Farvid & Braun, 2017).

Compliance with Ethical Standards

Disclosure of Potential Conflicts of Interest

All authors declare that there are no conflicts of interest to disclose.

Research Involving Human Participants and/or Animals

Not applicable.

Informed Consent

Not applicable.

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