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## A Dyadic Approach to Pornography Use and Relationship Satisfaction among Heterosexual Couples: The Role of Pornography Acceptance and Anxious Attachment

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### Abstract

The majority of research on pornography use within committed relationships has found such use to be associated with negative outcomes. However, given the variability in pornography use among couples, the current study sought to examine moderators in the association between pornography use and relationship satisfaction in a large sample of heterosexual matched-paired couples ( $N=6,626$ ). Actor-partner-interdependence models revealed that for men who are more anxiously attached, more pornography use is associated with higher relationship satisfaction; whereas for women who are more anxiously attached, more pornography use is associated with less relationship satisfaction. For men who are more accepting of pornography, more pornography use is associated with more relationship satisfaction; however, for men who are less accepting of pornography, more pornography use is associated with less relationship satisfaction. There was little difference in relationship satisfaction at differing levels of pornography use for women who are high in pornography acceptance; whereas for women who are low in pornography acceptance, pornography use is associated with less relationship satisfaction. Results are discussed and recommendations for practitioners are made through the lens of Symbolic Interaction Theory.

### Keywords

erotica/pornography; satisfaction; couples/marital/love; attachment

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The increase in access to pornography since the advent of the internet provides a changing context for couples' sexual experiences. Consequently, scholars have begun to investigate what role pornography use plays in romantic relationship satisfaction, with much of the findings indicating that pornography has a negative impact on relationships (Wright, Tokunaga, Kraus, & Klann, 2017). Pornography use is often studied through the lens of Social Cognitive (Bandura, 2001) and Sexual Scripting (Simon & Gagnon, 2003) theories. The predominate application of these theories posits that individuals learn about sex via observation in pornography. When this approach is taken, it is often argued that individuals

who use more pornography (where there are people much better looking and sexual behavior much more exciting than what could reasonably be expected in a longer-term relationship), they begin to assume that the sexual and romantic aspects of their relationship with their partner are not adequate. Under this model, the relationship subsequently deteriorates.

However, there are a plethora of gender and individual differences in the experience and interpretation by one's own and a partner's use of pornography that are important to consider when investigating the role of pornography use among heterosexual couples. Zitzman and Butler (2009) suggest that variations in the *meaning* of pornography use are highly symbolic for many monogamous couples and that these differences in meaning can impact on the bond between partners (Willoughby & Busby, 2016). Thus, the present study is informed by Symbolic Interaction Theory (Blumer, 1986), which suggests that one's personal symbolic meaning of an action will influence their emotional and behavioral reactions. In order to capture the perceived symbolism of pornography use within a relationship, the current study investigates attitudes toward pornography as well as relationship attachment style as moderators of the association between one's own pornography use, one's partner's pornography use, and relationship satisfaction among coupled dyads. In addition, we explore these moderators by gender in order to determine who is most likely to have stronger associations between pornography use and relationship satisfaction.

## Pornography Use Among Couples

In a nationally representative sample of over 20,000 married individuals, those who reported seeing an X-rated movie in the last year were 12% less likely to have a happy marriage, 25% more likely to be previously divorced, and 10% more likely to have had an extramarital affair (Doran & Price, 2014). A survey of attorneys found that 56% of divorce cases involved heightened use of internet pornography by one partner (Dedmon, 2002). However, findings from these macro studies may be misleading as they do not capture pornography use on a dyadic level, as pornography use within a relationship is likely experienced differently for a partner who uses pornography compared to a partner who does not, or for couples who use pornography together.

In general, the overwhelming majority of past research has focused on negative outcomes of pornography use within couples, in samples with reports from only one partner (Manning, 2006). For example, pornography use has been found to be associated with less sexual satisfaction and commitment as well as more negative communication and infidelity among couples (Brown et al., 2017; Bridges, & Morokoff, 2011; Lambert, Negash, Stillman, Olmstead, & Fincham, 2012; Maddox et al., 2011; Morgan, 2011; Yucel, & Gassanov, 2010). In contrast, pornography use has also been found to be associated with *more* sexual satisfaction among partnered women (Poulsen, Busby, & Galovan, 2013) and greater sexual knowledge, sexual openness, and sexual excitement (Campbell & Kohut, 2017; Daneback, Traeen, & Mansson, 2009; Weinberg, Williams, Kleiner, & Irizarry, 2010). However, when patterns of pornography use among couples differ dramatically between partners, pornography use is associated with lower relationship satisfaction and stability (Willoughby, Carroll, Busby, & Brown, 2016). This finding suggests that the imbalance of use between

partners is important. Moreover, when one partner is *preoccupied* with pornography, there is also a deterioration of romantic, family, and work life (Zitzman & Butler, 2005). Indeed, problematic pornography use has been identified as a major contributing factor to marital separation and divorce (Schneider, 2000), and it has been linked to less interest in relational sexual activity between affected partners (Schneider, 2003), particularly among partnered men (Bridges & Morokoff, 2011; Sun, Bridges, Johnason, & Ezzell, 2014). Given these varied associations with pornography use and outcomes among couples, research that can explain more of the unique variability in relationship satisfaction that is accounted for by each partner can build upon the majority of prior research with only self-report from one partner.

## Gender and a Partner's Use of Pornography

It is critical to examine gender differences in the experience of pornography use among heterosexual couples as the prevalence of use and the psychological experience of pornography varies by gender. For example, half of men are exposed to pornography prior to the age of 13, nearly all use it occasionally for masturbation, and roughly 46% use pornography weekly (Regnerus, Gordon, & Price, 2016; Sun et al., 2014). However, only 16–31% of women report regularly using pornography (Campbell & Kohut, 2017; Carroll et al., 2008; Regnerus et al., 2016). Although both men and women are physiologically aroused from pornography in laboratory studies, women report significantly less psychological arousal from pornography than men do (Allen et al., 2007), suggesting that women either feel ashamed of their arousal to pornography or are not psychologically stimulated by the content that is typically marketed toward heterosexual men. For example, content analyses show that popular pornography often portrays aggression toward women and emphasis on the male orgasm (Barron & Kimmel, 2000; Bridges, Wosnitzer, Scharrer, Sun, & Liberman, 2010; Klaassen & Peter, 2015). Given that men and women use, experience, and are depicted in pornography differently, the current study examines gender differences in the associations between one's own and one's partner's use of pornography and relationship satisfaction.

Prior work suggests that the dynamics of pornography use within a couple plays a particularly important role for a woman's experience in her relationship. For example, internet pornography use among one or both partners in a committed relationship has been found to be associated with poorer relationship quality, feelings of inadequacy, and low self-esteem; particularly among women in long-term relationships (Campbell & Kohut, 2017; Carroll, Busby, Willoughby, & Brown, 2017; Stewart & Szymanski, 2012). The act of secretly using pornography, hiding it, and feeling guilty about it, may make the other partner feel inadequate and that the user is emotionally withdrawn from his or her partner, which is thought to lead to sexual dysfunction and deteriorated emotional intimacy (Bergner & Bridges, 2002; Manning, 2006). Heterosexual women who have a male partner who uses pornography report feeling less sexually desirable and experience a negative view of themselves, their partner, and their relationship once they learn of their partner's pornography use (Bridges, Bergner, & Hesson-Mcinnis, 2003; Shaw, 2010). Bridges and colleagues (2003) noted that many such women exhibit the identical behaviors and emotions as someone who experiences infidelity in a relationship and identified this phenomenon as

*pornography distress* (Bridges et al., 2003). In contrast, research that only used data from one partner has found that women perceive cybersex and phone sex as infidelity, but not use of pornography (Guadagno & Sagarin, 2010). Given these mixed findings, it is important to understand how women experience their own as well as their partner's use of pornography within a dyad to build upon prior research with reports from only one partner.

## The Role of Pornography Acceptance & Anxious Attachment

We aim to extend prior work on associations between pornography use and relationship satisfaction by exploring moderators of this association among couples. We propose that one's perceptions and emotions are tied to pornography use in their relationship and will be a driving force in the association between pornography use and relationship satisfaction. Pornography acceptance, has been found to vary among individuals by age, gender, and religiosity (Carroll et al., 2008) as well as predict one's personal use of pornography within couples (Brown et al., 2017). Therefore, it is likely that one's attitudes toward pornography shape their symbolic meaning of pornography use within a relationship, as evidenced by gender differences in attitudes toward pornography. Indeed, men have been found to be more permissive of pornography use than women (Johansson & Hammarén, 2007). Further, women are more likely to favor restrictions on pornography, whereas men are more likely to report that pornography is an acceptable means of achieving sexual enhancement (Træen, Spitznogle, & Beverfjord, 2004). However, young women who use pornography themselves report more permissive attitudes toward pornography (Johansson & Hammarén, 2007). Among religious individuals who are less accepting of pornography, more use of pornography is perceived as pornography addiction and is associated with lower self-esteem and more anger (Wilt, Cooper, Grubbs, Exline, & Pargament, 2016). Therefore, pornography acceptance may be an important moderator of the association between pornography use and relationship satisfaction within couples, as individual responses to their partners' use may vary based on how they personally feel about pornography. However, how secure individuals feel in their relationships likely contributes to a link between pornography use and relationship satisfaction.

Given the prior work on negative feelings toward a partner's pornography use, we aimed to understand the role of relationship attachment as a moderator of pornography use and relationship satisfaction. Bowlby (1980) posited a model of attachment that stems from the quality of interactions with primary caregivers. Hazan and Shaver (1987) applied the attachment model as a continuous model that sustains into later adult romantic relationships, offering a model of quality and perception of interactions between partners. An anxious attachment can be characterized by the perception of dishonesty, connoting a belief and anticipation that a spouse will be inconsistent and unreliable—physically, emotionally, and psychologically—to one's needs (Cassidy & Shaver, 1999). Anxiously attached individuals in adulthood tend to ruminate about being abandoned and rejected by their partner (Hazan & Shaver, 1994). Other common feelings are jealousy toward other people or activities that take the attention of the partner and feeling the relationship is threatened by other people or activities (Shaver & Mikulincer, 2007). Thus, individuals who are anxiously attached likely perceive pornography use differently than those who are securely attached.

Consequently, individuals who are anxiously attached are often less satisfied with their relationships (Stackert & Bursik, 2003) and less satisfied with the sexual aspect of their relationships in particular (Butzer & Campbell, 2008). Further, the link between sexual satisfaction and relationship satisfaction is stronger for individuals who are anxiously attached compared to those who are securely attached (Butzer & Campbell, 2008), likely because sexuality is a salient marker for 'wantedness'. As such, the act of a partner using pornography may symbolize a threat to the relationship for someone who is anxiously attached, as it is taking sexual experience and fantasy outside of the couple. Although less is known about men, among women, some perceive pornography use as an act of infidelity (Zitzman & Butler, 2009), while other women do not (Guadagno & Sagarin, 2010). Among Croatian couples, pornography use is only associated with lower relationship satisfaction for men who report low emotional intimacy with a partner (Veit, Štulhofer, & Hald, 2017). Accordingly, individuals who are anxiously attached likely perceive their partner's or their own pornography use differently and in turn, are differentially effected by such use. However, to our knowledge, both partner's anxious attachment has not been explored among couple's pornography use. Accounting for attachment style on a dyadic level could reveal an important factor in the association between more pornography use and less relationship satisfaction found in prior studies.

## A Dyadic Approach to Pornography Use Among Couples

Although there are many studies which examine the use of pornography in romantic relationships, few studies have used a dyadic approach. In fact, what we know about sexuality among couples in general is primarily derived from data collected from individuals (DeLamater & Hyde, 2004; Lefkowitz & Vasilenko, 2014). Similarly, what is known about pornography use among couples, only reveals one partner's perception of the role of pornography in their relationship, and not the actual role pornography plays within the relationship for both partners. Only one individual's report of a couple outcome within a dyad is insufficient as a dyad living together will have a unique environment that is specific to the dyad.

The environment the couple creates is likely to be both influenced by individual factors as well as influence the experiences of the individuals. One dyadic study looked at pornography use and perceived sexual quality (Poulsen et al., 2013) and found that male pornography use was negatively associated with both male and female partners' perceived sexual quality, whereas female pornography use was only associated positively with her own perceived sexual quality. Another dyadic study looked at discrepancies in pornography use and found that large differences in pornography use between male and female partners was associated with more relational aggression among male partners, less sexual desire among female partners, and less positive communication patterns among both partners (Willoughby et al., 2016). Further, other work on pornography use among couples has looked at their intention to use pornography as a means to enhance their sex life (Daneback, Traeen, & Mansson, 2009). Among couples who both used pornography, both partners reported a more permissive erotic climate compared with couples who did not use pornography. They also found that male partners had more arousal issues and female partners had more negative self-perception among couples where only the male partner used pornography. These results

suggest that the meaning of pornography, or what pornography use symbolizes in the relationship matters. Thus, the current study assesses attitudes toward pornography and anxious attachment from both partners as moderators of the association between pornography use and relationship satisfaction.

The goal of the current study is to explore the associations between individual and partner pornography use and relationship satisfaction, and how these associations are moderated by gender, pornography acceptance, and anxious attachment. We have the following hypotheses:

- H1:** Consistent with Symbolic Interaction Theory (Blumer, 1986) and prior work which suggests that pornography use is associated with lower sexual satisfaction for men than for women (Poulsen, Busby, & Galovan, 2013), the negative association between own and partner pornography use and relationship satisfaction will be stronger for those who are less accepting of pornography, and this association will be stronger for men compared to women.
- H2:** Consistent with Symbolic Interaction Theory (Blumer, 1986), the negative association between partner pornography use and relationship satisfaction will be stronger for those who are more anxiously attached, and this association will be stronger for women compared to men. However, we predict that the negative association between one's own use of pornography and relationship satisfaction will not be significant, after partner's pornography use is accounted for.

## Method

### Participants

Participants were 6,626 individuals who made up 3,313 heterosexual, mixed-sex couples. Participants were sampled from the RELATE online educational tool (Busby, Holman, & Taniguchi, 2001) and resided across the United States at the time of the survey. The largest racial group was White (male: 74.6%; female: 75.8%) followed by Asian (male: 7.3%; female: 7.1%), Black (male: 5.3%; female: 5.9%), and Hispanic (male: 4.7%; female: 4.8%) participants. The average age of the sample was 32.78 years ( $SD = 6.79$ ) for males and 30.75 years ( $SD = 7.98$ ) for females. More than half of participants had completed a college education (64.3% of males, 62.7% of females). All couples were cohabiting and 37% were married. The largest religious denomination within the sample was Protestant (male: 36%; female: 37%). About half (52.2%) of females and 34.6% of males reported a yearly personal income of less than \$40,000.

### Procedure

The RELATE instrument is published by the RELATE Institute, which has as its mission the improvement of couple relationship through basic research and intervention. The RELATE instrument has been used in the past to study multiple aspects of couple dynamics including couple relationship quality (Busby & Holman, 2009), relational aggression (Busby, Holman, & Walker, 2008), sexual dynamics in couples (Willoughby & Vitas, 2012) and family violence (Walker, Holman, & Busby, 2009). The RELATE instrument is administered online



across the United States. The RELATE assessment is a couple assessment designed over 30 years ago, that has evolved to assess and provide feedback to those in romantic relationships. After taking RELATE, couples are provided with a lengthy report that provides feedback on their relationship strengths and weaknesses that they can utilize either on their own or in conjunction with a third party (e.g. clinician). For more information on the RELATE tool, its underlying theory, and psychometric properties, please see Busby et al.'s (2001) discussion.

Data from the assessments is then made available to relationship scholars interesting in couple dynamics. Individuals completed RELATE online after being exposed to the instrument through a variety of settings. Some participants were referred to the online site by their instructor in a university class, others by a relationship educator or therapist, and some participants found the instrument by searching for it on the web. In total, twenty-nine percent of the sample were referred to the online site by their instructor in a class, 25% were directed to the site by a relationship educator or therapist, 8% were sent to the site by clergy, 18% were referred to the site by a friend or family member, 7% were referred by an ad they saw online or in a print, and the remaining 13% of the participants found the instrument by searching for it on the web. All participants completed a consent form prior to the completion of the RELATE instrument and all data collection procedures were approved by the institutional review board. Participants were instructed to complete the assessment alone and to not discuss their responses with their partner.

## Measures

### Controls.

Several variables were utilized as control variables given their previous associations with both sexuality and relationship outcomes. For example, previous research has suggested that sexuality within relationships varies by both race (Dariotis, Sifakis, Pleck, Astone, & Sonenstein, 2011) and socio-economic factors (Owen, Rhoades, Stanley, & Fincham, 2010). Therefore, we included participant's race, age, and education as control variables in our models.

### Pornography use.

*Pornography use* was assessed by one item asked of each participant which was: "During the last twelve months on how many days did you view or read pornography (i.e., movies, magazines, internet sites, adult romance novels)?" Responses ranged from 0 (*no pornography use*) to 5 (*almost every day*).

### Pornography acceptance.

*Pornography acceptance* was measured by averaging six items assessing one's overall acceptance of pornography use individually and as a couple. Items were assessed on an overall agreement scale (1 = *strongly disagree*; 5 = *strongly agree*). Sample items included: "Viewing pornography is an acceptable way for single adults to express their sexuality," "Pornography objectifies and degrades women (reverse coded)," and "Pornography is a form of marital infidelity (reverse coded)." Reliability for this scale was in the acceptable range

(male:  $\alpha = .91$ ; female:  $\alpha = .92$ ) and higher scores indicated more acceptance of pornography.

### **Anxious attachment.**

*Anxious attachment* was assessed with nine items which assessed the amount of anxious feelings toward the relationship. Items were adopted for RELATE from the Adult Attachment Questionnaire (AAQ) to measure attachment anxiety (Simpson, Rholes & Phillips, 1996). Items were assessed on an overall agreement scale (1 = *strongly disagree*; 5 = *strongly agree*). Sample items included: “I often worry that my partner doesn’t really love me,” “I rarely worry about my partner leaving me (reverse coded).” Cronbach’s alpha was in the acceptable range (male:  $\alpha = .83$ ; female:  $\alpha = .84$ ). Higher scores indicate less anxious attachment.

### **Relationship satisfaction.**

*Relationship satisfaction* was assessed with seven items asking participants how satisfied they were with various aspects of their relationship (for example, in their sexual relationships and with the overall relationship). Items were rated on a 5-point scale (1 = *very dissatisfied* to 5 = *very satisfied*). Cronbach’s alpha was in the acceptable range (male:  $\alpha = .93$ ; female:  $\alpha = .94$ ). The RELATE satisfaction measures employed in this study have shown high test-retest reliability (between .76 and .78) and validity data have consistently shown that this scale is highly correlated with an existing relationship satisfaction and quality scale (Revised Dyadic Adjustment Scale) in both cross-sectional and longitudinal research (Busby et al., 2001; Busby, Holman, & Niehuis, 2009).

## **Data Analysis**

When analyzing matched-pair couple data or dyadic data it is crucial to account for the interdependency of those data. A large degree of correlation usually exists between both members of the dyad given the variables of interest. The Actor–Partner Interdependence Model (APIM) has been established by Kenny and colleagues as a framework for couple level data analyses (Kenny et al., 2006; Kenny & Cook, 1999). This model recognizes that a respondent’s characteristics affect both his/her own outcome (actor effects) and his/her partner’s outcome (partner effects). The APIM allows researchers to estimate the actor and partner effects simultaneously as well as independently.

To address our research questions, we used APIMs (Kenny, Kashy, & Cook, 2006). Approached as multi-level models, APIMs consist of individual data at level one and dyadic data at level two. The models allow partner outcomes and characteristics to be correlated and simultaneously estimate actor effects (i.e., the effects of individuals’ characteristics on their own outcomes) and partner effects (i.e., the effects of partners’ characteristics on the individuals’ outcomes). Formally, the models are expressed as follows, starting with the individual level (Level 1):



$$Y_{ij} = \beta_{0j} + \beta_{1j}(\text{Female}) + \beta_{2j}(\text{Caucasian})\dots + \beta_{6j}(\text{ActorPornUse}) + \beta_{7j}(\text{PartnerPornUse})\dots\beta_{14j} + (\text{Gender} * \text{PartnerPornUse} * \text{moderator}) + r_j \quad (1)$$

Here our primary outcome  $Y$  is relationship satisfaction for individual  $j$  of couple  $i$ . Beta parameters represent predictors that are specific to each level.  $\beta_{0j}$  refers to the average relationship satisfaction when all covariates are zero, and  $\beta_{1j}$  captures gender differences in relationship satisfaction.  $\beta_{2j}$ ,  $\beta_{5j}$  represents the effects of our demographic control variables. Of particular interest for our research questions,  $\beta_{6j}$  represents each individual's pornography use (actor effects) and  $\beta_{7j}$  represents the impact of partners' pornography use (partner effects).  $\beta_{11j}$  is the interaction of pornography use and the moderator (either pornography acceptance or anxious attachment), which is estimated to test whether one's pornography use influence is stronger for those who are more accepting of pornography or not or anxiously attached or not.  $\beta_{12j}$  is the interaction of partner's pornography use and the moderator (either pornography acceptance or anxious attachment), which is estimated to test whether the influence of a partner's pornography use is stronger for individuals who are more accepting of pornography or not or anxiously attached or not.  $\beta_{13j}$  is the interaction of gender, pornography use and the moderator (either pornography acceptance or anxious attachment), which is estimated to test for gender differences in the influence of one's pornography use for those who are more accepting of pornography or not or anxiously attached or not.  $\beta_{14j}$  is the interaction of gender, partner's pornography use and the moderator (either pornography acceptance or anxious attachment), which is estimated to test for gender differences in the influence of partner's pornography use for individuals who are more accepting of pornography or not or anxiously attached or not. Finally,  $r_{ij}$  is the individual-level error term that is normally distributed with a mean of zero. Following suggestions by Kenny et al. (2006), gender is effect coded (1 = female, -1 = male) to allow for easier interpretation of the intercept and gender interaction terms.

The Level 2 equations can be written as

$$\beta_{0j} = \gamma_{00} + u_{0j} \quad (2)$$

$$\beta_{1j} = \gamma_{10} \text{ to } \beta_{14j} = \gamma_{140} \quad (3)$$

Here  $\gamma_{00}$  indicates the mean couple-level relationship satisfaction for our sample and  $u_{0j}$  indicates random variation in couple-level intercepts. All covariates were grand mean centered. All models were estimated using the SAS v9.4 statistical package.

## Results

Descriptive statistics for all study variables are shown in table 1 and bivariate correlations for each gender are shown in table 2. Pornography use was associated with more

pornography acceptance, more anxious attachment, and less relationship satisfaction at the bivariate level.

To test our first hypothesis, examining whether individuals' negative association between own and partner's pornography use and relationship satisfaction will be stronger for those who are less accepting of pornography, and this association will be stronger for men compared to women, we conducted an APIM (see table 3). Individual control variables were entered as predictors of relationship satisfaction. Being younger ( $\beta_{4j}$ ) and more religiously oriented ( $\beta_{5j}$ ) predicted more relationship satisfaction. Using more pornography ( $\beta_{6j}$ ) and having a partner who uses more pornography ( $\beta_{7j}$ ) predicted less relationship satisfaction, and being more accepting of pornography ( $\beta_{8j}$ ) predicted more relationship satisfaction. Although the effect sizes are small, significant interactions showed that the association between pornography use and relationship satisfaction was moderated by pornography acceptance and gender. For one's own pornography use (actor effect), there was a significant three-way interaction, which indicates that the moderating effect of pornography acceptance on the association between one's own pornography use and relationship satisfaction was stronger for women compared to men (see Figure 1). For men who are more accepting of pornography, more pornography use is associated with more relationship satisfaction; however, for men who are less accepting of pornography, more pornography use is associated with less relationship satisfaction ( $\beta_{12j}$ ). There is little difference in relationship satisfaction at differing levels of pornography use for women who are high in pornography acceptance; whereas for women who are low in pornography acceptance, pornography use is associated with less relationship satisfaction ( $\beta_{14j}$ ). For partner's pornography use, there was a significant two-way interaction, such that the negative effect of pornography use was lessened for those who are more accepting of pornography ( $\beta_{13j}$ ). Although the negative effect of partner pornography use on relationship satisfaction was stronger for women compared to men ( $\beta_{10j}$ ), the three-way interaction of gender X pornography use X pornography acceptance was not significant ( $\beta_{15j}$ ).

To test our second hypothesis, the negative association between partner pornography use and relationship satisfaction will be stronger for those who are more anxiously attached, and this association will be stronger for women compared to men, we conducted an APIM (see table 3). Individual control variables were entered as predictors of relationship satisfaction. Anxious attachment was associated with lower relationship satisfaction ( $\beta_{8j}$ ). Similar to the prior analysis, those who use more pornography are less satisfied with their relationship; however, significant interactions show these effects were moderated by anxious attachment and gender. Results of the significant three-way interaction between gender, anxious attachment, and one's own pornography use (actor effect) are presented in Figure 2. Although the effect size is small, for men who are more anxiously attached, more pornography use is associated with higher relationship satisfaction; however, for women who are more anxiously attached, more pornography use is associated with less relationship satisfaction ( $\beta_{14j}$ ). There were no gender differences for those who were more or less anxiously attached in the association between a partner's pornography use and relationship satisfaction ( $\beta_{15j}$ ).

## Discussion

Our results showed that associations between pornography use and relationship satisfaction differ by one's level of pornography acceptance and anxious attachment. In partial support of hypothesis 1, the negative association between pornography use and relationship satisfaction was lessened for those who were more accepting of pornography, particularly for women. Hypothesis 2 was not supported, as men who were more anxiously attached and used more pornography were more satisfied with their relationship than women who were more anxiously attached and used more pornography. Our results suggest that individual and gender differences are indeed important when considering associations of pornography use with relationship outcomes.

We found that the negative association between pornography use and relationship satisfaction was stronger for those who were less accepting of pornography. Similarly, prior work has shown that individuals who are more accepting of pornography view it as acceptable to use within a relationship as long as they do not see pornography use as an act of infidelity (Olmstead et al., 2013). It is likely that those who are more accepting of pornography are more likely to use it as a couple, which may be a factor in this association. However, it is also likely that individuals who act in a way that is consistent with their attitudes may be more satisfied with life in general, than those whose attitudes and behaviors are contradictory (Diener, Oishi, & Lucas, 2003). It is important to consider that levels of pornography acceptance likely vary by the pornographic content one is viewing. For instance, popular pornography is marketed to men and portrays sex that is more pleasurable for men and even more violent toward women (Barron & Kimmel, 2000; Bridges et al., 2010; Klaassen & Peter, 2015). Therefore, the content may explain why we found pornography acceptance to be a stronger moderator in the association between pornography use and relationship satisfaction for women than for men. Future research should measure attitudes toward a variety of pornographic content in order to account for the positive association between pornography acceptance and relationship satisfaction among women. It could also be helpful for practitioners who work with heterosexual couples to address how women are portrayed in pornography so that both partners are in agreement with the kinds of pornographic acts they find acceptable to view.

### Attachment and Couple's Pornography Use

Interestingly, we did not find that the associations between partner pornography use and relationship satisfaction were moderated by anxious attachment. However, participants in our study may not have been accurate as to how much pornography their partner is consuming. Future research should measure how accurate couples are at identifying how much pornography their partner is actually consuming in order to understand effects from a partner's use of pornography. Prior work has found that individuals (particularly women) who have a partner who uses pornography often perceive that use as a type of infidelity (Bridges, Bergner, & Hesson-McInnis, 2003). In contrast, we found that the negative association between own pornography use and relationship satisfaction was stronger for women who were more anxiously attached. Perhaps women who are less secure about their relationship and use more pornography themselves are more likely to imagine sexual

fantasies or real life sexual scenarios that a partner might be having outside the relationship because they are watching those experiences themselves. On the contrary, we found that men who used more pornography and were more anxiously attached were more satisfied with their relationship. This result is inconsistent with past research which shows that college men with anxious or avoidant attachment styles who use more pornography, are more likely to experience negative affect than men who use less pornography (Tylka, 2014). However, our result is consistent with past research that showed college men who used more pornography had lower rates of depression (Willoughby, Carroll, Nelson, & Padilla-Walker, 2014). Perhaps pornography use among anxiously attached men in committed relationships helps to ease some of their relationship insecurities that stem from anxious attachment by bolstering their sense of masculinity. Whereas, single college men who are higher in anxious attachment might be reminded of their lack of real-life sexual or romantic relationship experiences when they use pornography-causing more negative affect. However, given the small effect size of this interaction, our interpretation of this finding must be heeded with caution.

Future research should examine attachment style and feelings of guilt toward pornography use as well as the act of being honest or dishonest about their pornography use with a partner. Prior qualitative research suggests that pornography use might disrupt the romantic pair bond by triggering a user to detach and disconnect, conditioning a user toward autoerotic behavior instead of sex within a relationship, and promoting sexual arousal without attentiveness, responsiveness, or commitment—the key dimensions of attachment (Zitzman & Butler, 2009). However, there is no current research to date (including the present study) that has the temporal ordering to support this claim. It would also be important to measure the level of openness and quality of communication around pornography use within the couple, as open communication has been found to mitigate some of the negative effects of pornography use within couples at the cross-sectional level (Newstrom & Harris, 2016). Therefore, it would be beneficial to see how changes in pornography use, communication, and changes in anxious attachment change over time among dyads to determine the impact of pornography use on the romantic pair bond.

### **Symbolic Meaning of Pornography Use within a Couple**

Contrary to Social Cognitive (Bandura, 2001) and Sexual Scripting (Simon & Gagnon, 2003) theories, the finding that the associations between pornography use and relationship satisfaction vary by attitudes and attachment style suggest that pornography use in a committed relationship likely varies in meaning for individuals, providing support for Symbolic Interaction Theory (Blumer, 1969). Given that pornography is a word that is laden with divergent meaning because it contains culture-bound expressions that change over time (Haavio-Mannila & Kontula, 2003), it is not surprising that those who are more accepting of pornography have less negative relationship satisfaction than those who are less accepting of pornography. Therefore, the current study highlights the need for practitioners to facilitate exploration of both individuals' sexual values within the couple and the importance of honoring those values before treating pornography or sexual problems within a relationship. It is also possible that those who view pornography more frequently also view relationships differently, as pornography use has been associated with having more casual views of sex

and greater acceptance of uncommitted sex, premarital sex, and extramarital sex (Braun-Courville & Rojas, 2009; Brown & L'Engle, 2009; Carroll et al., 2008; Peter & Valkenburg, 2010; Wright, 2013). Thus, it would also be beneficial for practitioners to discuss the potential for pornography use to socialize an individual's sexual attitudes before treating pornography use as either aberrant or normative.

Consistent with Symbolic Interaction Theory (Blumer, 1969), it is possible that the men and women in our study likely interpret their own pornography use differently compared to their partner's use in terms of what the behavior means for the quality of the relationship. For example, because it is more common for men to use pornography than it is for women, men may feel less guilty about their use or perceive their use as less harmful to a relationship. Women however, may interpret their use as more harmful because they feel more guilt or shame about it. Given that pornography use is also associated with less sexual satisfaction for men than for women (Poulsen et al., 2013), men could be seeking out pornography for sexual satisfaction or pornography use may impede their real life sexual satisfaction. Whereas, women may be using pornography to understand how to please themselves or a partner during real-life sexual interactions. In addition, men tend to view pornography on their own, whereas women tend to view it with their partner (Maddox, Rhoades, & Markman, 2011); perhaps because of this, women's use of pornography has been shown to increase their sexual satisfaction (Poulsen et al., 2013). Therefore, practitioners should also approach pornography use within heterosexual couples as a gendered issue, requiring more care and attention toward the complexity for the female partner's pornography use or feelings toward the male partner's pornography use.

### Limitations and Future Directions

There are several limitations of the current study that future research should address. First, this study was cross-sectional in nature, and therefore causality cannot be determined. Future research should measure pornography use, relationship satisfaction, and moderators over time within dyads to understand fluctuations in the variables to determine if indeed an increase in pornography use predicts a decrease in relationship satisfaction. It is just as likely that those who are less satisfied with their relationship use pornography in an attempt to address unmet needs, as it is for individuals to become less satisfied with their relationship due to their pornography use.

Second, this study only contains heterosexual couples who we assumed to be monogamous. Understanding pornography use in the context of romantic relationships of different partnered individuals with varying gender identities and sexual orientations would not only add to our understanding of all romantic relationships, but also to our understanding of gender differences in pornography use and perception of a partner's use. For example, perhaps gender differences in perception of a partner's use of pornography may not occur in same-sex couples, making these differences a product of heteronormativity and not necessarily based in biology or shaped by gender socialization. Perhaps even more knowledge could be gained by investigating these constructs among those practicing consensual non-monogamy. Third, our sample is mostly Caucasian, and therefore these relationship dynamics may not occur in relationships with other ethnicities. Understanding

pornography use among couples of different ethnicities could highlight important cultural differences in perception and experience of pornography use in a committed relationship.

Fourth, although our theoretical lens was symbolic interaction theory, we did not have a measure of meaning. In addition to meaning of pornography use within a couple, discrepancy in pornography would also be important for understanding the meaning of pornography use within a couple. Therefore, future research should focus on how partners interpret the meaning of differential use between partners. For example, a couple with only one partner who uses pornography compared to both or none at all. Similarly, the act of using pornography together likely has different meaning than the act of using it alone. Understanding the differences in those two contexts could also prove noteworthy. Lastly, given our small effect sizes, future research should have a more complex measurement of pornography use to more precisely measure the construct to provide more practical significance. For example, the internet contains an enormous variety of pornographic material all depicting different types of sexual behavior in different contexts. Therefore, understanding the type of pornography used, may lead to a better understanding of the interpretation and relation of use in the context of a committed relationship.

Despite these limitations, the present study provides evidence that pornography use within couples is associated with relationship satisfaction for both men and women and this association differs by levels of pornography acceptance and anxious attachment. Therefore, practitioners who work with couples should assess pornography attitudes and attachment style of both partners when addressing pornography-related issues. Further, couples should be encouraged to discuss pornography use with one another to establish ground-rules for whether such behavior would constitute a betrayal to the relationship in order to mitigate issues that may arise from pornography use. Finally, our findings highlight new paths of research to stimulate societal debates on the effects of pornography use and relationship satisfaction within couples.

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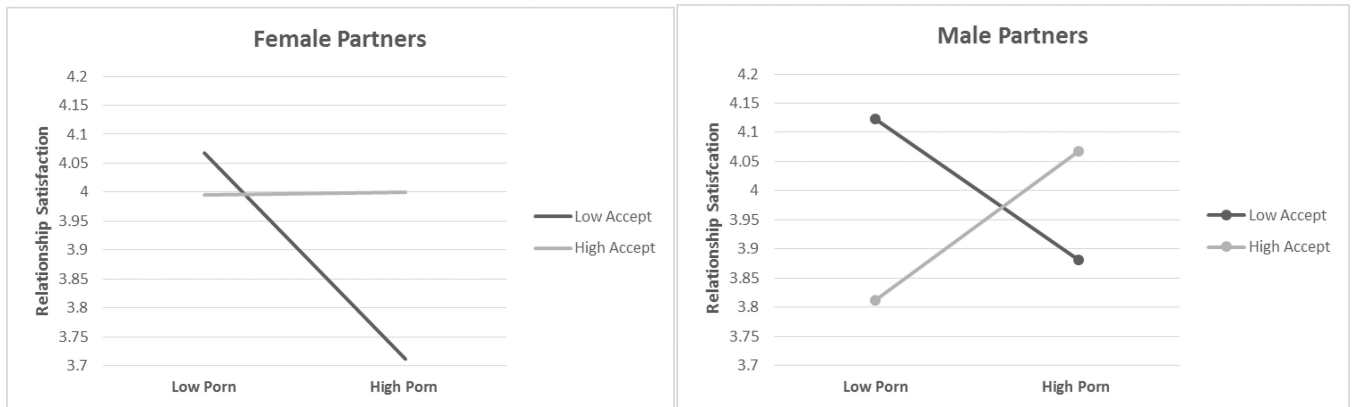
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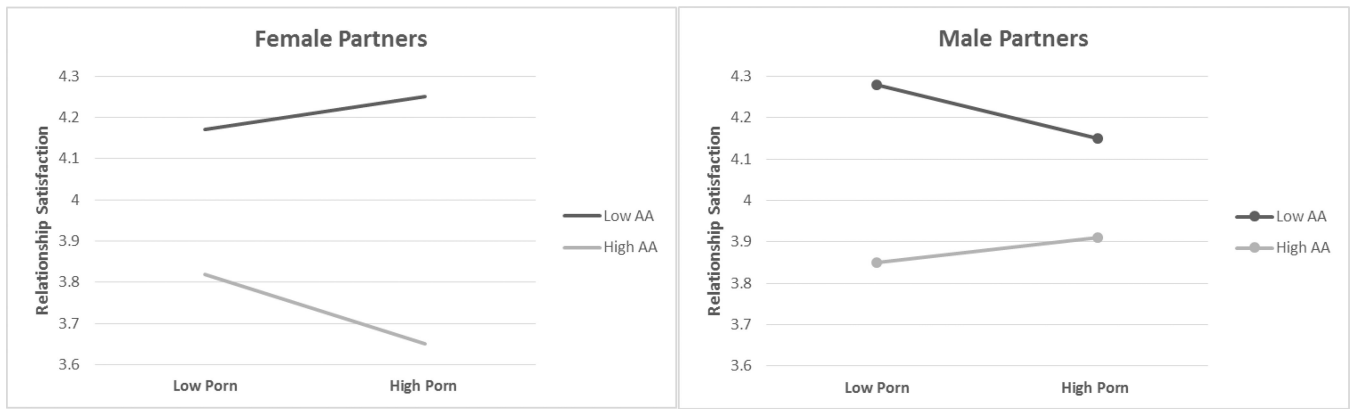
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**Figure 1.** Pornography acceptance moderates the association between pornography use and relationship satisfaction  
*Note.* Figure displays 1 *SD* above (High Accept) and 1 *SD* below (Low Accept) the mean of pornography acceptance. Higher scores indicate more permissive attitudes toward pornography. The x-axis displays 1 *SD* above the mean of pornography use (High Porn) and 1 *SD* below the mean of pornography use (Low Porn). Results are displayed separately for female and male partners for ease of interpretability.



**Figure 2.** Anxious Attachment moderates the association between pornography use and relationship satisfaction  
*Note.* Figure displays 1 *SD* above (High AA) and 1 *SD* below (Low AA) the mean of anxious attachment. Higher scores indicate more anxious attachment symptoms. The x-axis displays 1 *SD* above the mean of pornography use (High Porn) and 1 *SD* below the mean of pornography use (Low Porn). Results are displayed separately for female and male partners for ease of interpretability.

**Table 1.**

## Descriptive Statistics for Couples

Variable	Female		Male		
	<i>M (SD)</i>	%	<i>M (SD)</i>	%	
<i>Demographic Variables</i>					
White		75.8		74.6	
Asian		7.1		7.3	
Black		5.9		5.3	
Hispanic		4.8		4.7	
Other Race/Ethnicity		6.4		8.1	**
Age	30.75 (7.98)		32.78 (6.79)		***
College Education		62.7		64.3	**
Married		37.8		37.4	
Yearly income < \$40,000		52.2		34.6	***
Religious Orientation	3.40 (1.02)		3.12 (1.09)		*
Number of children	.56 (1.12)		.49 (1.03)		
<i>Study Variables</i>					
Pornography use	.47 (.76)		1.55 (1.38)		***
Pornography acceptance	2.99 (.93)		3.23 (.90)		***
Anxious attachment	5.03 (1.12)		5.19 (.99)		**
Relationship Satisfaction	3.86 (.82)		3.88 (.72)		

*Note.* Significance tests indicate results of a paired test examining significant differences between male and female partners.

\*  $p < .05$

\*\*  $p < .01$

\*\*\*  $p < .001$  (two-tailed)



**Table 2.**

## Correlations of Variables Separated by Gender

Variables	1	2	3	4
1. Pornography use	--	.43**	-.12**	-.04*
2. Pornography acceptance	.48**	--	-.02	.01
3. Anxious attachment	-.07**	.01	--	.38**
4. Relationship satisfaction	-.14**	-.06*	.39**	--

*Note.* Female partners' correlations above the diagonal, male partners' correlations below the diagonal.

\*  
 $p < .05$ .

\*\*  
 $p < .01$

\*\*\*  
 $p < .001$ .

**Table 3.**

Actor-partner interdependence models predicting relationship satisfaction among couples.

Fixed Effects	Pornography Acceptance			Anxious Attachment		
	$\beta$	(SE)	$R^2$	$\beta$	(SE)	$R^2$
<i>Individual-Level Controls</i>						
Intercept	0.45	(.05)		-.489	(.04)	
Female $\beta_{1j}$	-0.06 ***	(.01)		-0.03 ***	(.01)	
Caucasian $\beta_{2j}$	0.01	(.06)		0.02	(.05)	
Education $\beta_{3j}$	0.00	(.00)		0.00	(.00)	
Age $\beta_{4j}$	-0.01 ***	(.00)		-0.01 ***	(.00)	
Religious Orientation $\beta_{5j}$	0.05 ***	(.01)		-0.03 *	(.02)	
<i>Individual-Level Variables</i>						
Actor porn use $\beta_{6j}$	-0.08 ***	(.01)		-0.03 ***	(.00)	
Partner porn use $\beta_{7j}$	-0.03 *	(.01)		-0.01	(.04)	
Moderator $\beta_{8j}$	0.04 **	(.02)		-0.17 ***	(.01)	
<i>Interactions</i>						
Gender*Actor Porn Use $\beta_{9j}$	0.01	(.01)		0.05 ***	(.01)	
Gender*Partner Porn Use $\beta_{10j}$	-0.04 **	(.02)		-0.05 ***	(.01)	
Gender*Moderator $\beta_{11j}$	0.02 *	(.01)		0.01	(.01)	
Actor Porn Use*moderator $\beta_{12j}$	0.05 ***	(.01)		-0.00	(.01)	
Partner Porn use*moderator $\beta_{13j}$	0.03 **	(.01)		0.00	(.01)	
Gender*Actor Porn Use*moderator $\beta_{14j}$	0.03 *	(.01)		-0.01 *	(.01)	
Gender*Partner Porn Use*moderator $\beta_{15j}$	-0.00	(.01)		-0.01	(.01)	

*Note.*

\*  $p < .05$ .

\*\*  $p < .01$

\*\*\*  $p < .001$ . All variables are centered