

A Three-Wave Longitudinal Analysis of Preexisting Beliefs, Exposure to Pornography, and Attitude Change

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Much of the research on pornography and sexually permissive attitudes has been cross-sectional, has assessed only straightforward exposure–attitude correlations, has focused on adolescents, or has been conducted outside of the United States. This study employed nationally representative, longitudinal data gathered from adults in the United States to redress these gaps in the literature. After controlling for earlier sexual permissiveness and a number of other potential confounds, a positive prospective association between pornography exposure and subsequent sexual permissiveness was found. Furthermore, in alignment with the 3AM model of media sexual socialization, this association was moderated by participants' preexisting liberal–conservative ideology.

Keywords: Political Orientation; Pornography; Sexual Permissiveness; Sexual Socialization

Pornography¹ presents a highly permissive approach to sexual relations (Monk-Turner & Purcell, 1999). A few studies have explored whether exposure to pornography is associated with more permissive sexual attitudes (Wright, 2011a). Much of this research, however, has been cross-sectional (Wright, 2011b), has assessed only straightforward exposure–attitude correlations (Taylor, 2006), has focused on adolescents (Braun-Courville & Rojas, 2009), or has been conducted outside of the United States (Lo & Wei, 2005; Omori, Zhang, Allen, Ota, & Imamura, 2011; Peter & Valkenburg, 2008). Longitudinal studies are needed to assess whether prior pornography exposure predicts subsequent sexual permissiveness. Exploration of

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individual differences is needed to ascertain whether the association is more powerful for certain individuals. Studies of adults are needed because they are the purported audience for pornography but are often assumed to be attitudinally unaffected by exposure (Peter & Valkenburg, 2011). United States studies are needed because pornography researchers repeatedly warn that the effects of pornography are culturally specific (Lo & Wei, 2005; Omori et al., 2011; Peter & Valkenburg, 2008). This study employs recently released, nationally representative, three-wave longitudinal data gathered from adults in the United States to redress these gaps in the literature.

Pornography and Sexual Permissiveness

According to Lo, Neilan, Sun, and Chiang (1999), a “permissive” approach to sex is one that contradicts “traditional family values against premarital and nonexclusive sex” (p. 56). A number of researchers have observed that pornography’s approach to sex is highly permissive (Weaver, 1991; Zillmann & Bryant, 1988). Content analyses support these observations. Brosius, Weaver, and Staab’s (1993) study of video pornography found that only 5% of scenes were between committed partners. Monk-Turner and Purcell’s (1999) study of X-rated and XXX-rated videos found that just 8% of scenes involved committed partners. Dietz and Sears (1987) reported that every pornographic video, book, and magazine in their sample depicted sex between uncommitted individuals.

Correspondingly, a number of cross-sectional surveys have found that higher levels of pornography exposure are associated with more permissive sexual attitudes. For example, Japanese college students who consume more pornography are more likely to approve of sex outside of marriage (Omori et al., 2011). Similarly, Dutch adolescents who consume more pornography have more positive attitudes toward uncommitted sexual exploration (Peter & Valkenburg, 2008). Likewise, Taiwanese adolescents who consume more pornography are more likely to have permissive attitudes toward premarital sex (Lo & Wei, 2005).

In sum, a number of studies have found that exposure to pornography is associated with a more permissive approach to sex. Such associations are consistent with the assertion that exposure to the sexual worldview of a particular mediated message system contributes to a like-minded outlook in viewers (Brown & Steele, 1995). The idea that the social beliefs of viewers could be altered by mass media messages was originally proposed by cultivation theory in regards to television (Gerbner, Gross, Morgan, & Signorielli, 1994). Sexual socialization scholars interested in media effects have since extended this basic assertion to a variety of media (Donnerstein & Smith, 2001). Given the findings just presented and the theoretical premise (extrapolated from cultivation theory) that many media act as socializing agents, the following hypothesis is proposed:

H1: Exposure to pornography prospectively predicts more sexual permissiveness.

To conclude, findings from several pornography studies support the meta-assertion—derived from cultivation theory’s television-specific assertion—that

exposure to a particular mediated view of social relations (in this case, the positivity of permissive sex) will increase sympathy among consumers for the point of view presented. But the modest exposure–belief associations generally uncovered in research motivated by this assumption have led some theorists to conclude that individual differences make exposure effects more or less likely (Potter, 1993).

Preexisting Beliefs as a Potential Individual Difference Moderator

Wright (2011c; Wright, Malamuth, & Donnerstein, 2012) has proposed a script acquisition, activation, application ($_3$ AM) model of sexual socialization that asserts that the socializing effects of media sex depend upon individual differences. Sexual scripts provide individuals with rules for determining appropriate and inappropriate sexual behavior. Sexual scripts can provide guidelines for specific behaviors (e.g., the appropriateness of unmarried college students having sex following homecoming) or general patterns of behavior (e.g., the appropriateness of unmarried youth having sex regardless of demographics or circumstances). Sexual media can provide consumers with scripts they are unaware of [acquisition], prime scripts they are already aware of [activation], and encourage (or discourage) the utilization of scripts [application] by portraying them as normative (or nonnormative), plausible (or implausible), acceptable (or unacceptable), or rewarding (or punishing). Script application can occur at the level of behavior (e.g., deciding to personally engage or not engage in a particular sexual act) or judgment (e.g., deciding whether other people should or should not engage in a particular sexual act). In the context of the present study, script application would occur at the level of judgment (i.e., rendering a judgment about the appropriateness of youth engaging in unmarried sex in alignment with pornography's positive stance on permissive sexual behavior).

In sum, the $_3$ AM proposes a number of processes, dynamics, and mechanisms. Its core description of the sexual media effects process, however, is quite simple: sexual media exposure can (a) provide consumers with novel sexual scripts and/or activate already acquired sexual scripts that (b) may or may not be applied at the level of behavior or judgment depending upon a number of factors. A diagrammatic synopsis of the $_3$ AM is provided in Figure 1.

One moderating factor identified by the $_3$ AM is consumers' moral perspectives (Wright, 2011c, p. 348). Specifically, the model asserts that sexual scripts that are incompatible with consumers' preexisting moral perspectives will be less likely to be applied than sexual scripts that are compatible with consumers' preexisting moral perspectives. According to Linz and Malamuth (1993), conservatives and liberals have different views on sexual morality. For conservatives, traditional sexual values

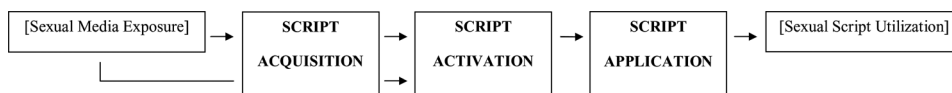


Figure 1 Diagrammatic summary of the $_3$ AM model.

prohibiting sex outside of marriage are absolute and transcendent. Liberals, on the other hand, believe in sexual open-mindedness and sexual individuality. Consequently, liberals should be more open than conservatives to pornography's position that sexually permissive behavior is socially harmless and gratifying for some people. To put it another way, exposure to pornography should activate permissive sexual scripts in the minds of both liberal and conservative consumers. At the point of application, however, the two groups should differ. Conservatives' absolutist views on sexual morality should discourage acceptance of the activated script; liberals' sexual individualism should increase the likelihood of sympathy for the activated script. In sum, attitude change in the direction of more sexual permissiveness from exposure to pornography should be more likely to occur for liberals than conservatives. Stated formally:

- H2: Preexisting liberal-conservative ideology moderates the prospective association between pornography exposure and sexual permissiveness, such that the association is stronger for more liberal consumers.

Method

Data Source

Data were provided by the General Social Survey (GSS) (Davis & Smith, 2010). Funded by the National Science Foundation, the GSS is the only ongoing, national, full-probability survey examining social beliefs and behaviors currently carried out in the United States (The National Data Program, 2011). The first GSS was carried out in 1972; the most recent in 2010. The GSS surveys residence-inhabiting adults age 18 or older. All residences in the United States have an equal chance of being selected. Adults within each residence have an equal probability of being surveyed (GSS Codebook, 2011). Comparisons of the makeup of GSS participants with census data indicate that the GSS has high external validity (GSS Codebook, 2011). The GSS has traditionally sampled from a novel group of respondents at each data collection. In 2006, the GSS introduced a panel component. Of the 4,510 respondents randomly selected and surveyed in 2006 (T1), 2,000 were randomly selected for re-interviews. Of these 2,000, 1,536 were surveyed again in 2008 (T2). Of these 1,536 respondents, 1,276 were re-interviewed in 2010 (T3). These thrice-surveyed participants are the focus of this study.

Participants

Demographics at baseline were as follows. Females comprised 56.8% of the sample, Whites 73.9% of the sample. Participants ranged in age from 18 to at least 89 ($M = 45.17$; $SD = 16.33$). Religiosity was operationalized as frequency of attendance at religious services (Wright, 2011b). Response options ranged from 0 = *never attend* to 8 = *attend more than once per week* ($M = 3.78$; $SD = 2.80$). Participants reported attending religious services approximately once a month, on average. Education

was operationalized in terms of the number of years of school participants had completed (Wright, 2011b). Participants' average educational attainment was 2 years of postsecondary education ($M = 13.79$; $SD = 2.97$).

Measures

Preexisting ideology

Following Vaisey (2006), participants' preexisting liberal–conservative ideology was assessed at T1 by asking whether they identified themselves as liberal or conservative. Response options ranged from 1 = *extremely liberal* to 7 = *extremely conservative* ($M = 4.19$; $SD = 1.42$). The validity of this measure is demonstrated by its negative correlation with T1 sexual permissiveness ($r = -.26$, $p < .01$) and its negative association with T1 pornography exposure ($r = -.19$, $p < .01$). The test–retest reliability of this measure is demonstrated by its large positive association with T2 preexisting ideology ($r = .61$, $p < .01$) and T3 preexisting ideology ($r = .58$, $p < .01$).

Pornography exposure

Pornography exposure was assessed at T2 by asking participants whether or not they had viewed an X-rated movie in the prior year (0 = No; 1 = Yes). Twenty-three point eight percent of participants said they had viewed a pornographic movie in the prior year. Citing data provided by the pornography industry, Bridges, Wosnitzer, Scharrer, Sun, & Liberman (2010) report that “34% of pornographic texts are consumed through video sales and rentals, 6% through cable pay-per-view, 4% through hotel in-room on demand, and 20% through Internet sources” (p. 1082). Bridges and colleagues concluded from these figures that “video sales and rentals are the preferred method of consumption in the United States” (p. 1082).

Recent studies suggested that assessments of pornography exposure should distinguish individuals on indices of sexual permissiveness such as extramarital sex, number of sexual partners, sex for pay, and premarital sex (Braun-Courville & Rojas, 2009; Lo & Wei, 2005; Omori et al., 2011; Wingood et al., 2001; Wright & Randall, 2012). Accordingly, pilot tests were conducted using participants from the cross-sectional component of the 2008 GSS. In alignment with prior studies, X-rated movie viewing was positively associated with ever having had extramarital sex ($r = .17$, $p < .01$), number of partners in the last year ($r = .29$, $p < .01$), ever having sex for pay ($r = .15$, $p < .01$), and permissive premarital sex attitudes ($r = .23$, $p < .01$). Analyses of X-rated movie viewing using participants from the panel component of the 2008 GSS confirmed these results (extramarital sex $r = .12$, $p < .01$; number of partners $r = .26$, $p < .01$; having sex for pay $r = .11$, $p < .01$; premarital sex attitudes $r = .24$, $p < .01$). At a nonsexual level, assessments of pornography exposure should distinguish individuals ideologically and religiously (Linz & Malamuth, 1993). In alignment with this contention, being conservative ($r = -.15$, $p < .01$) and attending religious services ($r = -.19$, $p < .01$) were negatively correlated with X-rated movie viewing in pilot tests using the cross-sectional component of the 2008 GSS. Analyses

of X-rated movie viewing using participants from the panel component of the 2008 GSS confirmed these results (ideology $r = -.21$, $p < .01$; religiosity $r = -.23$, $p < .01$).

Numerous studies have found that multi-item measures of pornography exposure that include an item assessing exposure to pornographic movies are internally consistent (Lo et al., 1999; Lo & Wei, 2005; Omori et al., 2011; Peter & Valkenburg, 2008). As one example, Lo and Wei (2005) assessed pornography exposure with a seven-item scale that included exposure to “sexually explicit movies” (p. 228). Cronbach’s alpha was .84. As another example, Peter and Valkenburg (2008) assessed pornography exposure with a four-item scale that included exposure to sexually explicit “movies in which people were having sex” (p. 587). Cronbach’s alpha was .95. Pilot data collected by the author aligns with studies such as these. Wright (2011d) collected data assessing undergraduates’ pornography viewing using a scale with four items. Cronbach’s alpha for the scale including the assessment of exposure to pornographic movies was .82. Cronbach’s alpha dropped to .72 when the item was deleted from the scale.

The measure of pornography exposure in the present study was subjected to a test–retest reliability assessment. T2 pornography exposure was strongly correlated with T1 pornography exposure ($r = .54$, $p < .01$) and T3 pornography exposure ($r = .55$, $p < .01$).

Sexual permissiveness

According to Weinberg, Williams, Kleiner, and Irizarry (2010), pornography’s “permissive sexual scripts” indicate that “sex need not be saved for marriage” (p. 1398). Correspondingly, participants’ sexual permissiveness was assessed at T3 by asking whether they thought it was wrong for unmarried youth to have sex. Response options ranged from 1 = *always wrong* to 4 = *not wrong at all* ($M = 1.44$; $SD = 0.80$).

Assessments of attitudinal sexual permissiveness should correlate with behavioral indices of sexual permissiveness such as extramarital sex, number of sexual partners, sex for pay, and viewing pornography (Lo et al., 1999; Omori et al., 2011; Wright, 2011b). Accordingly, pilot tests were conducted using participants from the cross-sectional component of the 2010 GSS. In alignment with expectations, positive premarital sex attitudes were associated with ever having had extramarital sex ($r = .10$, $p < .01$), number of partners in the last year ($r = .19$, $p < .01$), ever having sex for pay ($r = .07$, $p < .05$), and viewing pornography ($r = .18$, $p < .01$). Analysis of premarital sex attitudes using participants from the panel component of the 2010 GSS confirmed these results. Pornography exposure in 2010 was positively correlated with premarital sex attitudes in 2010 ($r = .26$, $p < .01$). Likewise, ever having had extramarital sex ($r = .16$, $p < .01$), number of partners in the last year ($r = .10$, $p < .01$), and ever having sex for pay ($r = .07$, $p = .06$) in 2008 were positively or marginally correlated with premarital sex attitudes in 2010 (panel participants were asked about their lifetime sexual behavior in 2008 but not 2010). At a nonsexual level, assessments of attitudinal sexual permissiveness should distinguish individuals ideologically and religiously (Linz & Malamuth, 1993). In alignment with this contention,

Table 1 Descriptive Statistics and Zero-Order Correlations

Variable ^a	Mean (SD)	2	3	4	5	6	7	8	9	10	11	12
1. T1 Age	45.17 (16.33)	.01	-.15**	.09*	.03	-.25**	.09**	.15**	.14**	-.15**	-.21**	-.14**
2. T1 Education	13.79 (2.97)	—	-.16**	-.04	-.04	.00	-.06*	-.03	.03	.05	-.01	.01
3. T1 Ethnicity ^b	0.26 (0.44)	—	—	.05	.01	.13**	-.18**	.04	.03	.02	.13**	.02
4. T1 Extramarital sex ^c	0.19 (0.39)	—	—	—	-.01	.14**	-.10**	.16**	-.06	.14**	.11*	.11*
5. T1 Gender ^d	0.57 (0.50)	—	—	—	—	-.21**	-.02	-.25**	.12*	-.05	-.26**	-.05
6. T1 Partners	1.07 (1.01)	—	—	—	—	—	-.13**	.04	-.10**	.09**	.24**	.11**
7. T1 Preexisting ideology	4.19 (1.42)	—	—	—	—	—	—	-.01	.21**	-.25**	-.16**	-.20**
8. T1 Prostitution ^e	0.08 (0.28)	—	—	—	—	—	—	—	-.01	.03	.11**	.05
9. T1 Religiosity	3.78 (2.80)	—	—	—	—	—	—	—	—	-.29**	-.19**	-.24**
10. T1 Sexual permissiveness	1.46 (0.82)	—	—	—	—	—	—	—	—	—	.16**	.44**
11. T2 Pornography	0.24 (0.43)	—	—	—	—	—	—	—	—	—	—	.23**
12. T3 Sexual permissiveness	1.44 (0.80)	—	—	—	—	—	—	—	—	—	—	—

^aArranged alphabetically, by wave.

^bWhite = 0, Non-White = 1.

^c0 = Have not had extramarital sex, 1 = Have had extramarital sex.

^dMale = 0, Female = 1.

^e0 = Have not had sex for pay, 1 = Have had sex for pay.

* $p < .05$. ** $p < .01$.

being conservative ($r = -.19$, $p < .01$) and attending religious services ($r = -.27$, $p < .01$) were negatively correlated with permissive premarital sex attitudes in pilot tests using the cross-sectional component of the 2010 GSS. Analyses of premarital sexual permissiveness using participants from the panel component of the 2010 GSS confirmed these results (ideology $r = -.24$, $p < .01$; religiosity $r = -.22$, $p < .01$).

Scores of studies have found that multi-item measures of attitudinal sexual permissiveness that include an item assessing attitudes toward premarital sex are internally consistent (Brown & L'Engle, 2009; Carroll et al., 2008; Eyal & Kunkel, 2008; Lam & Chan, 2007; Lo et al., 1999; Lo & Wei, 2005; Sheeran & Abrams, 1993; Taylor, 2006; Zhang, Miller, & Harrison, 2008). As one example, Brown and L'Engle (2009) assessed attitudinal sexual permissiveness with a five-item scale that included the following item: "People should not have sex before marriage" (p. 137). Cronbach's alpha was .85. As an additional example, Eyal and Kunkel (2008) assessed attitudinal sexual permissiveness with a five-item scale that included the following item: "Having sexual intercourse before one is married is always wrong" (p. 170). Cronbach's alpha was .81.

The measure of attitudinal sexual permissiveness in the present study was subjected to a test-retest reliability assessment. T3 sexual permissiveness exhibited large correlations with T2 sexual permissiveness ($r = .44$, $p < .01$) and T1 sexual permissiveness ($r = .44$, $p < .01$).

Analytic Approach

A hierarchical multiple regression analysis with T3 sexual permissiveness as the dependent variable was carried out to test the study's hypotheses. Since causes must precede their effects, third variables that may confound the pornography exposure—sexual permissiveness association (age, education, ethnicity, ever having engaged in extramarital or paid sex, gender, number of sexual partners, religiosity, preexisting ideology, prior permissive attitudes) were assessed at T1 and entered in the first step of the analysis. These potential confounds are suggested by prior media sex theory and research (Linz & Malamuth, 1993; Wright, 2011b, 2011c). T2 pornography exposure was entered in the second step. To test the $\text{}_3\text{AM}$ premise that preexisting beliefs moderate the socializing impact of sexual media, the interaction between T1 preexisting liberal-conservative ideology and T2 pornography exposure was entered in the third step. The change in R^2 associated with steps two and three was used to assess hypotheses 1 and 2, respectively. All interval variables were mean-centered. Descriptive statistics for and correlations between the variables included in the analysis are presented in Table 1.

Results

H1: Exposure to Pornography and Sexual Permissiveness

Hypothesis 1 was supported. Exposure to pornography at T2 was correlated with more sexual permissiveness at T3 ($r = .23$, $p < .01$). More importantly, exposure to

Table 2 Hierarchical Multiple Regression Analysis Predicting T3 Sexual Permissiveness

	Adj. R^2	R^2	R^2 Change	F Change	B	β	SE
Step 1 ^a	.17	.21	.21	5.70**			
T1 Age					-.00	-.08	.00
T1 Education					.01	.03	.02
T1 Ethnicity ^b					-.02	-.01	.12
T1 Extramarital sex ^c					.06	.03	.13
T1 Gender ^d					-.06	-.04	.11
T1 Partners					-.01	-.01	.09
T1 Preexisting ideology					-.08	-.13	.04
T1 Prostitution ^e					.09	.03	.18
T1 Religiosity					-.07**	-.24	.02
T1 Sexual permissiveness					.25**	.22	.08
Step 2	.19	.23	.02	5.53*			
T2 Pornography					.32*	.16	.14
Step 3	.22	.26	.03	7.85**			
T1 Preexisting ideology × T2 Pornography					-.28*	-.57	.10

^aVariables arranged alphabetically.

^bWhite = 0, Non-White = 1.

^c0 = Have not had extramarital sex, 1 = Have had extramarital sex.

^dMale = 0, Female = 1.

^e0 = Have not had sex for pay, 1 = Have had sex for pay.

* $p < .05$. ** $p < .01$.

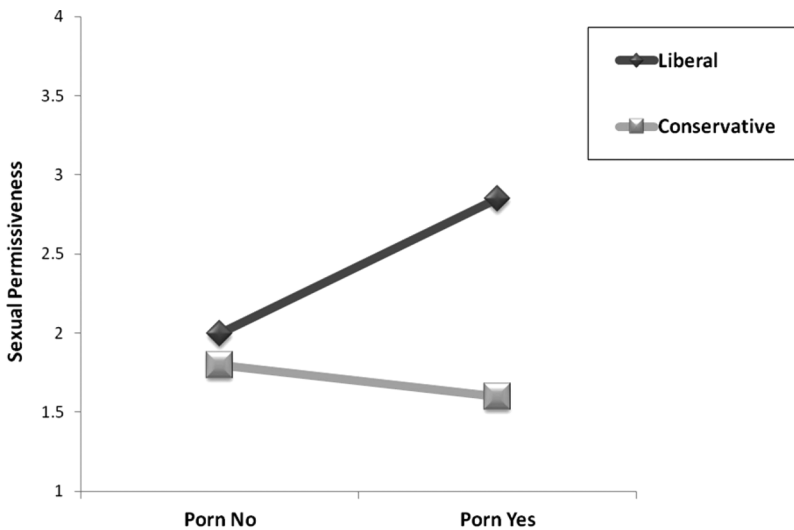


Figure 2 Interaction of T1 preexisting ideology and T2 pornography exposure on T3 sexual permissiveness.

pornography at T2 was predictive of more sexual permissiveness at T3 ($\Delta R^2 = .02$; $F = 5.53$, $\beta = .32$, $p < .05$), even after controlling for T1 sexual permissiveness and the other covariates (see Table 2).

H2: Moderating Role of Preexisting Ideology

Hypothesis 2 was supported. The interaction between T1 preexisting ideology and T2 pornography exposure on T3 sexual permissiveness was significant ($\Delta R^2 = .03$; $F = 7.85$, $p < .01$), even after controlling for prior sexual permissiveness and the other covariates (see Table 2). Simple slope analyses revealed that the attitudes of “extreme liberals” ($\beta = .57$, $p < .01$), “liberals” ($\beta = .43$, $p < .01$), and “slight liberals” ($\beta = .29$, $p < .01$) became more positive with exposure, while the attitudes of “slight conservatives” ($\beta = .01$, $p = .89$), “conservatives” ($\beta = -.13$, $p = .30$), and “extreme conservatives” ($\beta = -.27$, $p = .11$) did not change with exposure. The slopes for “liberals” and “conservatives” are displayed visually in Figure 2.

Discussion

The key findings of the present study and the implications of these findings are as follows. First, a positive, zero-order correlation between T2 exposure to pornography and T3 sexual permissiveness was found. As a cause must precede its effect, the finding that earlier exposure to pornography correlates with later sexual permissiveness is an important one. Second, to test the confounding possibility that earlier sexual permissiveness was responsible for both later pornography exposure and later sexual permissiveness, subsequent analysis included T1 sexual permissiveness as a covariate. The prospective association between T2 pornography exposure and T3 sexual permissiveness remained significant. This is an important finding, as it demonstrates that pornography exposure was associated with interindividual change in sexual permissiveness over time (Little, Card, Preacher, & McConnell, 2009) and renders selective exposure as an alternative explanation for the association unlikely (Collins et al., 2004).

Third, a number of additional potential confounds that might have also accounted for the pornography exposure–sexual permissiveness association were included in the model. The association between T2 pornography exposure and T3 sexual permissiveness still remained significant. In sum, the present study found evidence in support of the hypothesis that pornography can act as a socializing agent for United States adults’ sexual permissiveness similar in strength to prior longitudinal studies of adolescents both in and outside of the United States (Brown & L’Engle, 2009; Peter & Valkenburg, 2010). This is important, as the cross-cultural generalizability of pornography research is often questioned (Peter & Valkenburg, 2010) and it is often assumed that adolescents, but not adults, are socialized by sexual media (Peter & Valkenburg, 2011).

The results of the present study also have theoretical ramifications. On one hand, the positive association between pornography exposure and sexual permissiveness that emerged when averaging across all participants provides support for the premise

derived from cultivation theory that media have an overall socializing impact. On the other hand, that this association emerged for liberals but not for conservatives provides support for the view that socialization effects are more likely for some people than for others (Potter, 1993). In particular, this interaction provides support for the position of the $\text{}_3\text{AM}$ (Wright, 2011c) that preexisting beliefs moderate the attitudinal application of activated sexual scripts.

Future studies can improve or expand upon the present study in several ways. First, experimental studies are needed to more adequately test the various dynamics and mechanisms proposed by the $\text{}_3\text{AM}$. The results of this study provide support for the model at a general level, but do not speak to the model's finer grained predictions. For example, are moral standards most operative at the point of application, or are they equally operative or perhaps even more operative at earlier stages in the sequence? Experimental studies that assess the specific cognitions involved during exposure to sexual media as well as the cognitions involved in subsequent judgments would be of value. Second, although a variety of potential confounds were considered, a lingering possibility in all nonexperimental research is that a "third variable" explains the associations uncovered (Little et al., 2009). Future research should employ experimental designs to cross-validate the results of this and other longitudinal studies of pornography exposure and sexual permissiveness (Brown & L'Engle, 2009; Peter & Valkenburg, 2010).

Third, future studies employing primary data can take advantage of the many multi-item measures that have been developed in recent years to assess pornography exposure (e.g., Lo & Wei, 2005; Peter & Valkenburg, 2011) and sexual permissiveness (e.g., Braun-Courville & Rojas, 2009; Eyal & Kunkel, 2008). Multi-item measures are able to capture more nuance and breadth than single-item measures and are also more amenable to assessments of reliability and validity (DeVellis, 1991). Fourth, although the theme of permissive sex appears to be robust in pornography, future studies should consider assessing whether exposure to different pornographic genres (Paul, 2009) leads to permissive sexual attitude correlations of varying strength. Fifth, future research should continue to assess individual differences that make socializing effects from exposure to mediated sex more or less likely. For example (in addition to moral standards), the $\text{}_3\text{AM}$ suggests that consumers' motivations for exposure, psychological involvement with the content and characters casted, propensity for rumination, and media dependency may make effects more or less likely.

Note

- [1] The word "pornography" in this study is used as shorthand for mediated content depicting nudity and explicit sexual acts (Wright et al., 2012).

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