

## COMMENTARY

# PORNOGRAPHY AND THE SEXUAL SOCIALIZATION OF CHILDREN: CURRENT KNOWLEDGE AND A THEORETICAL FUTURE

**Paul J. Wright**

*Academics and lay people alike have contended for decades that children view pornography and are affected by this exposure. Pornography studies that actually sample children are a new phenomenon, however. This commentary summarizes what we currently know about children's exposure to pornography and the attitudinal and behavioral correlates of exposure. The author concludes with a call for research on factors that may moderate the effects of exposure and suggests that studies use the sexual script acquisition, activation, and application model of media sexual socialization as a theoretical guide.*

KEYWORDS pornography; children; sexual socialization; sexual scripts; 3AM

### Introduction

Reports that children today are born with Ethernet as opposed to umbilical cords are probably exaggerated. But Internet connectivity is the norm now for children in many countries. And with ready access to the Internet comes ready access to pornography (i.e., entertainment media that graphically depict or describe genitalia and sexual acts). Academics were already voicing strong concerns about the impact of pornography on children before the Internet became a mainstream technology. This chorus has multiplied post-Internet ubiquitization. But what do we actually know, scientifically, about children's exposure to pornography and the likely effects of that exposure? And what do we need to know?

A few years ago, I had the opportunity to review the scientific literature on children and mainstream media sexual socialization (Wright, Malamuth, & Donnerstein, 2012). The nature of my recent work has led to a familiarity with the scientific literature on pornography and the sexual socialization of adults (e.g., Wright, 2013a; Wright & Arroyo, 2013; Wright, Bae, & Funk, 2013a; Wright & Randall, 2012). I am grateful now for the opportunity to briefly summarize and comment on the state of the scientific literature on pornography and children's sexual socialization.

## What Do We Know?

### *Many Children are Exposed to Pornography*

Representative or large-scale studies conducted in the USA and other countries indicate that many children are exposed to pornography. A representative survey of youthful Internet users in the USA aged 10–17 years found that 42 per cent had been exposed to pornography in the prior year (Wolak, Mitchell, & Finkelhor, 2007). A representative survey of Dutch children aged 12–17 years found that a quarter had viewed pornographic pictures online in the prior 6 months (Peter & Valkenburg, 2011). An Australian survey representative of 16- and 17-year-old children in Sydney and Melbourne found that more than 80 per cent of boys and a majority of girls had been exposed to pornography on the Internet (Flood, 2007). A representative survey of middle and high school students in Taiwan found that nearly 40 per cent had viewed pornography online in the past few years (Lo & Wei, 2005). A survey representative of high school students in north-western Italy found that approximately 35 per cent had viewed pornography in the last 6 months (Bonino, Ciairano, Rabaglietti, & Cattelino, 2006). In a survey representative of high school students in Athens Greece, about a quarter reported online pornography exposure (Tsitsika et al., 2009). A large-scale study of youth from Gothenburg and Kalmar Sweden found that about 90 per cent of junior high boys and 60 per cent of junior high girls had viewed pornographic movies (Johansson & Hammaren, 2007). Studies conducted in Germany (Weber, Quiring, & Daschmann, 2012), Switzerland (Luder et al., 2011), and Israel (Mesch, 2009) also report children's exposure to pornography.

### *Pornography Depicts Positively Many Behaviors Adults View Negatively*

Zillmann (2000) rightly points out that the tremendous variability in adults' sexual and social attitudes implies that not all would be opposed to children learning from pornography. Nevertheless, many adults would prefer if children did not model the behaviors depicted in pornography nor acquire pornographic perspectives on sex and social life (Bryant, 2010; Check, 1995; Flood, 2009; Peter & Valkenburg, 2008).

Unprotected sex is one example. Condom use is the exception in pornography. Grudzen et al. (2009) studied pornographic movies distributed by one of the largest retailers in the USA. Vaginal intercourse was condomless in 97 per cent of scenes. Gorman, Monk-Turner, and Fish (2010) studied video-clips on popular pornography websites. Two per cent of clips featured sex protected by a condom.

Nonrelational and recreational sexual exchanges are probably another example. Casual sex, group sex, and sex with strangers, for instance, are common in pornography. Monk-Turner and Purcell's (1999) study of pornographic movies available nationally in the USA found that more than 9 of 10 scenes involved casual partners. Group sex took place in almost every other scene in a Canadian study of pornographic movies (Palys, 1986). Sex between strangers unfolded in more than one in three scenes in a German study of pornographic movies (Brosius, Weaver, & Staab, 1993).

Depictions of women as sexual objects who are subordinate to men would also be deemed unacceptable by many adults, as would male-on-female aggression. It is common for women in pornography to be cast as objects whose purpose is to sexually gratify men.

In the study by Gorman et al. (2010), approximately every other clip featured women who were enthusiastically eager to perform whatever sex acts men in their vicinity desired. It is also common for men to be cast as superiors and women as subordinates. Cowan, Lee, Levy, and Snyder (1988) analyzed pornographic movies available at neighborhood retailers in western USA. More than three-quarters of movies featured scenes of dominance; nearly 80 per cent of the time men were the dominators. The majority of men were businessmen or other professionals; the majority of women were students, clerical workers, or housewives. Vannier, Currie, and O'Sullivan (2014) studied video clips on popular pornography websites. Women were sexually exploited more often than were men. Bridges, Wosnitzer, Scharrer, Sun, and Liberman (2010) studied a random sample of pornographic movies identified as either top sellers or as highly rented by the Adult Video Network. Close to 90 per cent of scenes depicted aggressive acts such as choking, gagging, or spanking. Recipients of aggression were females about 95 per cent of the time.

### *Children's Attitudes and Behaviors Vary as a Function of Pornography Exposure*

Pornography experiments with children would be illegal in many countries due to age-based restrictions or general restrictions on consumption of sexually explicit media. But a number of self-report, correlational studies of children's pornography exposure and attitudes and behaviors have now been conducted. These studies have generally found that children's attitudes and behaviors vary predictably as a function of their degree of exposure to pornography. The following examples correspond with the pornographic themes and behaviors just reviewed.

Pornography exposure is correlated with a reduced likelihood of contraceptive use in a few studies. In a cross-sectional study of girls aged 14–18 years conducted in the USA, pornography exposure was associated with a lack of contraceptive use and testing positive for chlamydia (Wingood et al., 2001). In a cross-sectional study of Swiss high school students, exposure to pornography was associated with noncondom use among boys (Luder et al., 2011).

Pornography exposure is correlated with more nonrelational or recreational sexual attitudes and behaviors in multiple studies. In Lo and Wei's (2005) Taiwanese study, pornography exposure was associated with more frequent engagement in casual sex and more positive attitudes toward premarital and extramarital sex. Rothman et al. (2012) studied females aged 14–20 years in the USA (the majority of the sample was 17 years or younger). Pornography exposure was associated with a higher likelihood of engaging in group sex. In Peter and Valkenburg's (2010) longitudinal study of Dutch youth as young as 13 years old at baseline, prior pornography exposure predicted more subsequent recreational attitudes toward sex among both boys and girls a year later.

Pornography exposure has also correlated with the perception that women are sex objects, regressive gender role attitudes, and perpetration of sexually aggressive behavior. Pornography exposure predicted more agreement that women are sex objects among both boys and girls in the longitudinal study conducted by Peter and Valkenburg (2009). In a two-wave study of middle-school students conducted in the USA, baseline pornography exposure was associated with more agreement among girls at follow-up that others' behavior should conform to traditional gender roles (Brown & L'Engle, 2009). Pornography exposure has been associated with a higher likelihood of engaging in sexually aggressive

behavior in a cross-sectional research in Italy (Bonino et al., 2006) and a longitudinal research in the USA (Brown & L'Engle, 2009; Ybarra, Mitchell, Hamburger, Diener-West, & Leaf, 2011).

### What Do We Need to Know?

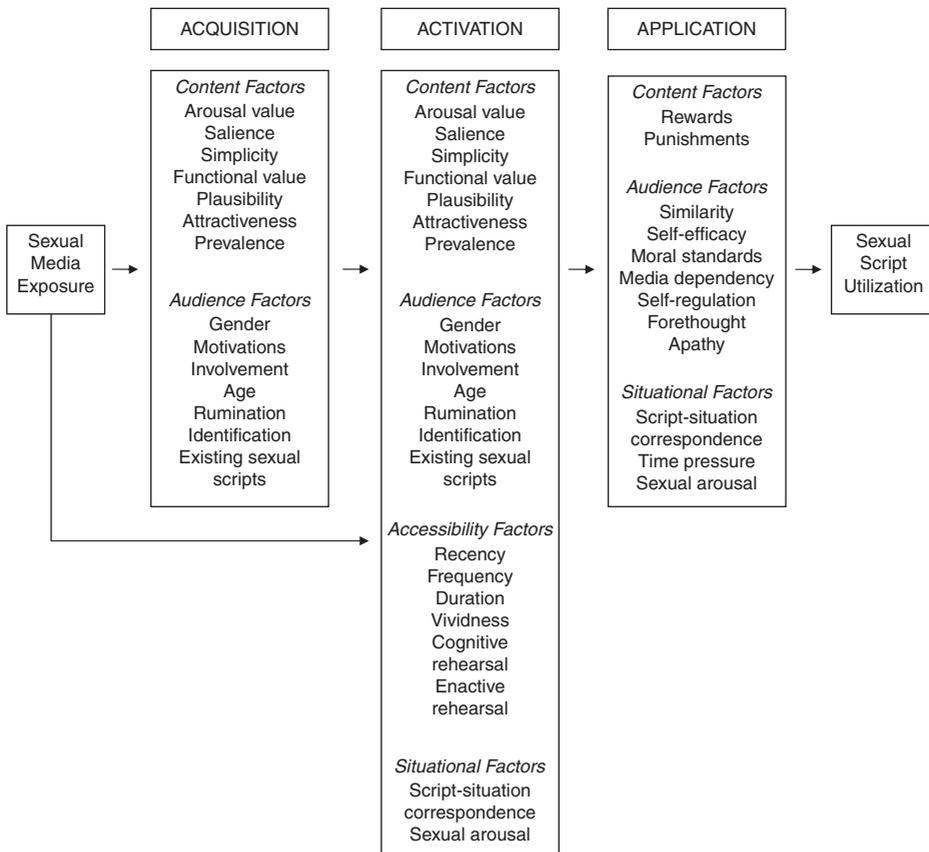
In sum, we know that in our technology-driven, always online world, accessing pornography has never been easier. We also know that many young people in the USA and other countries report that they have been exposed to pornography, and that this exposure is associated with an increased likelihood of holding attitudes and engaging in behaviors congruent with recurrent themes in pornography. We also know that many adults consider pornography a poor sex educator and would like to reduce its impact on children's sexual and social development.

There are two pathways through which pornography's impact on children can be reduced. The first pathway is preventing children from viewing pornography in the first place. That several studies have found portions of children who report no exposure is encouraging to advocates of this pathway.

The second pathway involves identifying factors that decrease the probability of exposure effects. Like previous commentators (e.g., Zillmann, 2000), I believe that exposure is more likely than not, especially as ease of access is increasingly facilitated with each new technological advance. If exposure is inevitable for most children, the identification of moderating factors becomes the essential task.

Assessment of moderating factors has been of secondary focus in pornography and child socialization studies to date, however. Studies have focused more on whether exposure correlates with particular attitudes and behaviors after other variables are statistically controlled than on whether associations are contingent upon potentially modifiable factors. I believe that in order for effective preventative strategies to be developed, what is needed is a theoretical model that specifies how and under what circumstances children's attitudes and behaviors are likely to be affected by exposure to pornography.

I recently wrote a theoretical integration paper on children and mainstream media sexual socialization for *Communication Yearbook* that outlined an acquisition, activation, application model ( $_3AM$ ) of sexual media socialization (Wright, 2011; see also Wright, 2012, 2013a, 2013b, 2013c, *in press*; Wright & Arroyo, 2013; Wright, Arroyo, & Bae, *in press*; Wright et al., 2012, 2013a; Wright & Funk, 2013; Wright & Randall, 2012; Wright, Randall, & Arroyo, 2013; Wright & Tokunaga, 2013). A visual depiction of the model is presented in Figure 1. I believe the model can be applied to the study of the socializing effects of children's exposure to pornography. The  $_3AM$  incorporates principles from behavioral, cognitive, and media theories (e.g., the heuristic processing model of cultivation effects, social cognitive theory, priming, uses and gratifications, media dependency), but is informed most directly by the concept of sexual scripting. Scripts are symbolically imparted directives for human sociality. Scripts affect cognitions and behaviors. Audiences can learn specific scripts or higher order scripts from sexual media. Specific scripting occurs when consumers retain rules for particular sexual contexts and partners. Higher order scripting occurs when consumers abstract the overall philosophy guiding media models' sexual behavior. Higher order scripting paves the way for novel uses and enactments. According to the  $_3AM$ , sexual media can provide consumers with scripts they were unaware of (acquisition), prime scripts they were already aware of (activation), and encourage the utilization of scripts (application) by portraying behaviors as normative, acceptable, and rewarding.



**FIGURE 1**  
The  $_3$ AM of media sexual socialization

The  $_3$ AM identifies a number of factors that may be modifiable by intervention efforts. For example, the model predicts that effects are less likely when consumers perceive scripts in sexual media as less personally salient, as having less functional value, as less realistic, and most importantly, as less compatible with their preexisting sexual scripts. As further illustration, the model predicts that effects are less likely when consumers are not dependent on media for sexual information, view sexual media critically and analytically, do not identify with or see themselves as similar to media models, and have internalized moral standards for behavior that media models' actions fall below. I hope that the  $_3$ AM may serve as a useful theoretical referent for researchers interested in understanding pornography exposure and the sexual socialization of children.

## Conclusion

Pornography studies that sample children are a new phenomenon. Whether conducted in the USA or other nations, this emergent line of research indicates that many children view pornography and that the more children view pornography the more likely it is that they will express attitudes and engage in behaviors consistent with pornography's

presentation of sex. Given the challenges to preventing children's access to pornography posed by new communication technologies, this commentary has argued that intervention efforts should focus on identifying factors that reduce the likelihood that youth will adopt scripts in pornography that are deemed inappropriate by parents, educators, and members of the medical community. The 3AM of media sexual socialization may be useful in helping researchers identify factors that may mitigate possible negative effects resulting from children's exposure to pornography.

## REFERENCES

- Bonino, S., Ciairano, S., Rabaglietti, E., & Cattelino, E. (2006). Use of pornography and self-reported engagement in sexual violence among adolescents. *European Journal of Developmental Psychology, 3*, 265–288. doi:10.1080/17405620600562359
- Bridges, A. J., Wosnitzer, R., Scharrer, E., Sun, C., & Liberman, R. (2010). Aggression and sexual behavior in best-selling pornography videos. *Violence Against Women, 16*, 1065–1085. doi:10.1177/1077801210382866
- Brosius, H., Weaver, J. B., & Staab, J. F. (1993). Exploring the social and sexual "reality" of contemporary pornography. *Journal of Sex Research, 30*, 161–170. doi:10.1080/00224499309551697
- Brown, J. D., & L'Engle, K. L. (2009). X-rated sexual attitudes and behaviors associated with U.S. early adolescents' exposure to sexually explicit media. *Communication Research, 36*, 129–151. doi:10.1177/0093650208326465
- Bryant, C. (2010). Adolescence, pornography, and harm. *Youth Studies Australia, 29*, 18–26.
- Check, J. (1995). Teenage training: The effects of pornography on adolescent males. In L. Lederer & R. Delgado (Eds.), *The price we pay: The case against racist speech, hate propaganda, and pornography* (pp. 89–91). New York, NY: Hill and Wang.
- Cowan, G., Lee, C., Levy, D., & Snyder, D. (1988). Dominance and inequality in x-rated videocassettes. *Psychology of Women Quarterly, 12*, 299–311. doi:10.1111/j.1471-6402.1988.tb00945.x
- Flood, M. (2007). Exposure to pornography among youth in Australia. *Journal of Sociology, 43*, 45–60. doi:10.1177/1440783307073934
- Flood, M. (2009). The harms of pornography exposure among children and young people. *Child Abuse Review, 18*, 384–400. doi:10.1002/car.1092
- Gorman, S., Monk-Turner, E., & Fish, J. N. (2010). Free adult internet web sites. *Gender Issues, 27*, 131–145. doi:10.1007/s12147-010-9095-7
- Grudzen, C. R., Elliott, M. N., Kerndt, P. R., Schuster, M. A., Brook, R. H., & Gelberg, L. (2009). Condom use and high-risk sexual acts in adult films. *American Journal of Public Health, 99*, 1732–1733. doi:10.2105/AJPH.2009.169912
- Johansson, T., & Hammare, N. (2007). Hegemonic masculinity and pornography: Young people's attitudes toward and relations to pornography. *The Journal of Men's Studies, 15*, 57–70. doi:10.3149/jms.1501.57
- Lo, V. H., & Wei, R. (2005). Exposure to internet pornography and Taiwanese adolescents' sexual attitudes and behavior. *Journal of Broadcasting and Electronic Media, 49*, 221–237. doi:10.1207/s15506878jobem4902\_5
- Luder, M., Pittet, I., Berchtold, A., Akre, C., Michaud, P., & Suris, J. (2011). Associations between online pornography and sexual behavior among adolescents: Myth or reality? *Archives of Sexual Behavior, 40*, 1027–1035. doi:10.1007/s10508-010-9714-0
- Mesch, G. S. (2009). Social bonds and internet pornographic exposure among adolescents. *Journal of Adolescence, 32*, 601–618. doi:10.1016/j.adolescence.2008.06.004

- Monk-Turner, E., & Purcell, H. C. (1999). Sexual violence in pornography. *Gender Issues, 17*, 58–67. doi:10.1007/s12147-999-0015-7
- Palys, T. S. (1986). The social content of video pornography. *Canadian Psychology, 27*, 22–35. doi:10.1037/h0079859
- Peter, J., & Valkenburg, P. M. (2008). Adolescents' exposure to sexually explicit internet material and sexual preoccupancy: A three-wave panel study. *Media Psychology, 11*, 207–234. doi:10.1080/15213260801994238
- Peter, J., & Valkenburg, P. M. (2009). Adolescents' exposure to sexually explicit internet material and notions of women as sex objects: Assessing causality and underlying processes. *Journal of Communication, 59*, 407–433. doi:10.1111/j.1460-2466.2009.01422.x
- Peter, J., & Valkenburg, P. M. (2010). Processes underlying the effects of adolescents' use of sexually explicit internet material: The role of perceived realism. *Communication Research, 37*, 375–399. doi:10.1177/0093650210362464
- Peter, J., & Valkenburg, P. M. (2011). The use of sexually explicit internet material and its antecedents: A longitudinal comparison of adolescents and adults. *Archives of Sexual Behavior, 40*, 1015–1025. doi:10.1007/s10508-010-9644-x
- Rothman, E. F., Decker, M. R., Miller, E., Reed, E., Raj, A., & Silverman, J. G. (2012). Multi-person sex among a sample of adolescent female urban health clinic patients. *Journal of Urban Health, 89*, 129–137. doi:10.1007/s11524-011-9630-1
- Tsitsika, A., Critselis, E., Kormas, G., Konstantoulaki, E., Constantopoulos, A., & Kafetzis, D. (2009). Adolescent pornographic internet site use: A multivariate regression analysis of the predictive factors of use and psychosocial implications. *CyberPsychology & Behavior, 12*, 545–550. doi:10.1089=cpb.2008.0346
- Vannier, S. A., Currie, A. B., & O'Sullivan, L. F. (2014). Schoolgirls and soccer Moms: A content analysis of free "Teen" and "MILF" online pornography. *Journal of Sex research*. Advance online publication. doi:10.1080/00224499.2013.829795
- Weber, M., Quiring, O., & Daschmann, G. (2012). Peers, parents and pornography: Exploring adolescents' exposure to sexually explicit material and its developmental correlates. *Sexuality & Culture, 16*, 408–427. doi:10.1007/s12119-012-9132-7
- Wingood, G. M., DiClemente, R. J., Harrington, K., Davies, S., Hook, E. W. III, & Oh, M. K. (2001). Exposure to X-rated movies and adolescents' sexual and contraceptive-related attitudes and behaviors. *Pediatrics, 107*, 1116–1119. doi:10.1542/peds.107.5.1116
- Wolak, J., Mitchell, K., & Finkelhor, D. (2007). Unwanted and wanted exposure to online pornography in a national sample of youth internet users. *Pediatrics, 119*, 247–257. doi:10.1542/peds.2006-1891
- Wright, P. J. (in press). Americans' attitudes toward premarital sex and pornography consumption: A national panel analysis. *Archives of Sexual Behavior*.
- Wright, P. J. (2011). Mass media effects on youth sexual behavior: Assessing the claim for causality. *Communication Yearbook, 35*, 343–386.
- Wright, P. J. (2012). A longitudinal analysis of U.S. adults' pornography exposure. *Journal of Media Psychology, 24*, 67–76. doi:10.1027/1864-1105/a000063
- Wright, P. J. (2013a). U.S. males and pornography, 1973–2010: Consumption, predictors, correlates. *Journal of Sex Research, 50*, 60–71. doi:10.1080/00224499.2011.628132
- Wright, P. J. (2013b). A three-wave longitudinal analysis of preexisting beliefs, exposure to pornography, and attitude change. *Communication Reports, 26*, 13–25. doi:10.1080/08934215.2013.773053

- Wright, P. J. (2013c). Internet pornography exposure and women's attitude towards extramarital sex. *Communication Studies*, *64*, 315–336. doi:10.1080/10510974.2012.755643
- Wright, P. J., & Arroyo, A. (2013). Internet pornography and U.S. women's sexual risk behavior: Results from a national sample. *Mass Communication and Society*, *16*, 617–638. doi:10.1080/15205436.2012.754045
- Wright, P. J., Arroyo, A., & Bae, S. (in press). An experimental analysis of young women's attitude toward the male gaze following exposure to centerfold images of varying explicitness. *Communication Reports*.
- Wright, P. J., Bae, S., & Funk, M. (2013a). American women and pornography through four decades: Exposure, attitudes, behaviors, individual differences. *Archives of Sexual Behavior*, *42*, 1131–1144.
- Wright, P. J., & Funk, M. (2013). Pornography consumption and opposition to affirmative action for women: A prospective study. *Psychology of Women Quarterly*. doi:10.1177/0361684313498853
- Wright, P. J., Malamuth, N. M., & Donnerstein, E. (2012). Research on sex in the media: What do we know about effects on children and adolescents? In D. G. Singer & J. L. Singer (Eds.), *Handbook of children and the media* (pp. 273–302). Thousand Oaks, CA: Sage.
- Wright, P. J., & Randall, A. K. (2012). Internet pornography exposure and risky sexual behavior among adult males in the United States. *Computers in Human Behavior*, *28*, 1410–1416. doi:10.1016/j.chb.2012.03.003
- Wright, P. J., Randall, A. K., & Arroyo, A. (2013). Father-daughter communication about sex moderates the association between exposure to MTV's 16 and Pregnant/Teen Mom and female students' pregnancy-risk behavior. *Sexuality & Culture*, *17*, 50–66.
- Wright, P. J., & Tokunaga, R. S. (2013). Activating the centerfold syndrome. *Communication Research*. Advance online publication. doi:10.1177/0093650213509668
- Ybarra, M. L., Mitchell, K. J., Hamburger, M., Diener-West, M., & Leaf, P. J. (2011). X-rated material and perpetration of sexually aggressive behavior among children and adolescents: Is there a link? *Aggressive Behavior*, *37*, 1–18. doi:10.1002/ab.20367
- Zillmann, D. (2000). Influence of unrestrained access to erotica on adolescents' and young adults' dispositions toward sexuality. *Journal of Adolescent Health*, *27*, 41–44. doi:10.1016/S1054-139X(00)00137-3

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