Sexual Media	Consumption	and Permissive	Sexual Attitudes
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Forbidden TV Fruit:

Does Sexual Media Consumption lead to more Permissive Sexual Attitudes, especially among Religious Young Adults?

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Abstract

The aim of this study was to examine whether watching sexual media images leads to more permissive sexual attitudes among young adults. Religious identity was investigated as a potential moderator, based on the forbidden fruit hypothesis. This hypothesis holds that the impact of sexual media images on religious young adults may be greater than for nonreligious young adults. A total of 96 Dutch college students (18 - 23 years old) participated in an experiment in which the students were shown either mainstream sexual media images or non-sexual media images. A questionnaire two weeks prior to the experiment and a questionnaire following the experiment both measured sexual permissiveness. Contrary to expectations, watching sexual media images did not lead to more permissive sexual attitudes. Religious identity was found to negatively predict sexual permissiveness, however young adults with a religious identity were not more strongly affected by the sexual images. Further research, especially on the influence of cultural differences in sexual attitudes is necessary to explain inconsistent findings in literature.

Key terms: sexual media consumption, permissive sexual attitudes, young adults, religion

Imagine you are 17 again and you want to go and see the movie *American Pie: The Reunion* in the cinemas. Living in France this movie is appropriate for all viewers. In The Netherlands you are allowed to watch this movie when you are 12 years old and in the United Kingdom you have to be 15 years old to watch this movie. In the United States this movie is rated 'R' (Restricted, children under 17 require accompanying parent or adult guardian) for crude and sexual content throughout, nudity, language, brief drug use and teen drinking (Motion Picture Association of America, 2012). These countries differ in their ratings and these age restrictions suggest that the content of this movie could be harmful. But is that true?

The social cognitive theory (Bandura, 1986) might give the answer to this question. Social cognitive theory provides a transactional view of self and society. Personal factors in the form of cognitive, affective, and biological effects, behavioral patterns, and environmental events all operate as interacting determinants that influence each other bidirectionally (Bandura, 1986; Bandura 2001). According to this theory people can learn vicariously through the observation of actions taken by others. These others refer to people in one's near environment as well as in a more distant environment, for instance people portrayed in mass media. Thus, televised attitudes and behaviors could be adopted by the viewer. The greater the relative benefits are of a particular attitude or behavior that is manifested by a behavioral model, the higher the incentive is to adopt it. Modeling negative reactions to a particular attitude or behavior, as a result of having had disappointing experiences with it, dissuades others from trying it (Bandura, 2001). In this case, sexual attitudes or behaviors that young adults come across in mass media that are portrayed as positive or beneficial are likely to be adopted. So, if young adults are confronted with permissive sexual attitudes on television that are portrayed as positive or beneficial, they might adopt these attitudes.

Several studies show that, indeed, there is an association between exposure to sex in the media and more permissive sexual attitudes among adolescents and young adults. A

permissive attitude is a more relaxed approach towards something that allows a great deal of freedom. With a permissive attitude you are being more lenient or tolerant towards for instance having sex before marriage or having sex without being in love. A decade ago, Ward (2003) reviewed the existing literature and found that greater regular exposure to or involvement with sexually oriented genres, such as soap operas and music videos, is associated with more liberal and more stereotypical sexual attitudes. In one study (Strouse & Buerkel-Rothfuss, 1987) it was found that music video consumption is associated with permissiveness for females. A few years later the same researches found the same effect of music video consumption on permissive sexual attitudes for females and that this effect was stronger for females who are in an unsatisfactory family environment (Strouse, Buerkel-Rothfuss & Long, 1995). Ward (2002) found that more frequent and more involved viewing were associated with young adults' support of sexual stereotypes. In addition, Ward (2002) found that regular viewing significantly predicted students' sexual attitudes and assumptions, even when controlling for demographics and previous sexual experiences.

Recently, Nikken (2009) reviewed internationally published research of the last 15 years and stated that being confronted with sex in the media during childhood or adolescence may lead to more permissive attitudes towards sex. Overall, the reviewed studies suggest that being confronted with more sexual media images (Hawk, Vanwesenbeeck, De Graaf & Bakker, 2006; Peter & Valkenburg, 2006) or more explicit sexual media images (De Graaf, Nikken, Felten, Janssens & Van Berlo, 2008; Ward & Friedman, 2006) lead to more permissive sexual attitudes. On the other hand it was found by other researchers that watching music videos did not correlate with permissive sexual attitudes (Beentjes, Konig & Krzeszewski, 2008).

A solid longitudinal research by Baams, Overbeek, Dubas, Doornwaard, Rommes and Van Aken (submitted for publication) showed that a higher level of sexual media

consumption was associated with a higher level of permissive sexual attitudes. Moreover, they found that increases in sexual media consumption were associated with increases in permissive sexual attitudes over time. The causality underlying these relations remained unclear however, as parallel developmental trajectories were examined. Thus, in order to truly establish a causal effect of sexual media images, experimental studies are needed. Insofar as attempts have been made to examine the causality of these associations through experimental research, the approach has been to expose one group to sexual images and another group to nonsexual images. Then, sexual attitudes of the two groups were compared. The experimental evidence collected until now suggests that young adults exposed to sexual images as opposed to neutral images in music videos endorse more casual and stereotypical attitudes towards sex (i.e., Kalof 1999; Greeson & Williams, 1986).

This study extends the experimental paradigm, by studying the effect of watching sexual media images on permissive sexual attitudes. It is expected that sexual media consumption will lead to more permissive sexual attitudes. In addition, this study will incorporate a test of a specific person-environment interaction, namely the moderating influence of having a religious identity on the effect of sexual media images on the development of permissive sexual attitudes in young adulthood.

Research supports the links between religiousness and sexual attitudes for young adults. In particular, studies focused on young adults' religiousness have found that people with stronger religious beliefs and greater religious service attendance tend to have more conservative sexual attitudes (Brelsford, Luquis & Murray-Swank, 2011; Beckwith & Morrow, 2005; Pluhar, Frongillo, Stycos & Dempster-McClain, 1998). According to social cognitive theory, when sexual attitudes or behaviors are displayed in the media as positive or beneficial people are likely to adopt them (Bandura, 2001). So, in that sense religious people are likely to adopt the positively portrayed permissive sexual attitudes or behaviors as well.

However, an alternative hypothesis called the forbidden fruit hypothesis (Bushman & Cantor, 2007) insinuates that the impact of sexual media images on religious young adults may be greater than for nonreligious young adults. According to the forbidden fruit hypothesis, if something is forbidden or thought as being 'bad', people may want it even more and forbidding something only makes it more desirable and attractive (Bushman & Cantor, 2007). An explanation of the forbidden fruit effect is given by reactance theory (Fogarty, 1997; Brehm, 1966). An assumption of reactance theory is that people like the freedom to behave according to their own wishes. When this freedom is threatened, people experience psychological reactance, an unpleasant emotional state that motivates them to restore the lost freedom (Bijvank, Konijn, Bushman, Roelofsma, 2009). Therefore, restrictions can make attitudes more attractive to those for whom the restriction applies. Hence, it is expected that a religious identity increases the influence of sexual media consumption on permissive sexual attitudes.

Method

Sample Characteristics

A total of 101 undergraduates of Utrecht University and University of Applied Sciences Utrecht participated in this study in exchange for money (7.50 euros) or fulfillment of a bachelor psychology requirement. In the sample, 66.7% participants (n = 64) were female and 33.3% (n = 32) were male. Participants ranged in age from 18 to 23 years (M = 20.26; SD = 1.47). Almost all of the participants 89.6 % (n = 86) had a Dutch nationality, 5.2% (n = 5) had a Moroccan nationality and 5.2% (n = 5) had another nationality. Participants were randomly assigned to either the sexual condition (i.e., 16 males; 36 females) or the neutral condition (i.e., 16 males; 28 females). With regard to sexual orientation, five homosexual participants were excluded, because of the heterosexual stimulus clips used in this study, resulting in a sample of 96 participants.

Measures

Questionnaires. Two weeks prior to the experiment participants completed questions referring to religion and overall values. The questions concerning religion were 'Were you raised religiously?' and 'Do you consider yourself to be a religious person?'. Both were two-stage questions, because they were followed by the question 'What religion is that?' - that could be answered with Catholicism, Protestantism, Islam, Hinduism and Other.

A bogus questionnaire concerning norms and values on a wide range of topics was developed as a cover up for four questions about permissive sexual attitudes. These overall values items consisted of for instance 'I think people should be loyal to their friends' and 'I think society needs more free spirits'. The questions about permissive sexual attitudes were derived from publications by The Netherlands Institute for Social Research (SCP; Beckers, 2003). Specifically, these four questions were combined in a Permissive Sexual Attitude Scale (PSAS). The items were rated along a 5-point Likert scale from 1 (totally disagree) to 5 (totally agree). Responses on the 4 questions measuring permissive sexual attitudes were summed, with a higher score indicating a higher level of permissive sexual attitude. These 4 items consisted of 'I think it is okay when someone has sex with someone he/she has just met', 'I think someone is allowed to have sex without being in love', 'I think a sexual relationship between two people of the same sex is okay' and 'I think it's fine when someone has sex before marriage'. The alpha coefficient for the PSAS questionnaire prior to the experiment was 0.88. Directly following the experiment the participants completed another questionnaire containing the PSAS items. The alpha coefficient for the PSAS questionnaire following the experiment was 0.88.

Stimulus Clips. Stimulus clips were produced to establish an experimental condition in which participants would be exposed to sexual media images and a neutral condition without any sexual media images. Several movies and popular TV series produced in the last

10 years were screened for permissive sexual content by online streaming. The movie Match Point, an episode of the TV series Mad Men and an episode of Gossip Girl were selected. These TV series and this movie were selected because they fit in the regular 'TV diet' of Dutch young adults by which external validity is maximized. From these three media sources, one 1-minute clip with permissive sexual behavior and two 1-minute nonsexual clips were selected. A 6-clip stimulus tape was then produced for the sexual condition consisting of three sexual clips interspersed with three of the nonsexual clips. These nonsexual clips were inserted to let the stimulus tape resemble a more regular 'TV diet', as Ward (2001) did in her experimental study. The 6-clip stimulus tape for the neutral condition consisted of six nonsexual clips. Fourteen red dots were inserted in both of the tapes to serve the pretense of a visual memory task.

Procedure

Participants were recruited through posters and flyers at the Utrecht University and Hogeschool Utrecht containing information about the experiment. Participants were told the study was about "visual memory". After signing up participants received an e-mail with a link to the online questionnaire and a warning that the clips they got to see in the experiment could contain fragments of sex, drugs or violence. Participants completed the questionnaire in about 10 minutes. Two weeks after filling in the online questionnaire participants came to the laboratory for the experimental proper. Participants took place in a small room with only a table and a computer with few opportunities for distraction. Participants were told to focus on what they would see, to try to remember that and to count the red dots that emerged on the screen. After watching the clip participants filled in the online questionnaire. After filling in the questionnaire participants were thanked for their participation. This experimental phase lasted for approximately 30 minutes.

Results

Preliminary Analysis

Table 1 contains the descriptive statistics for this study. The sexual and the neutral condition contained an equal proportion of men and women, t(94) = -.57, p = .57. Furthermore, the conditions were comparable in terms of age, t(94) = .08, p = .94 and religious identity, t(94) = .22, p = .83. Almost 48.0 % (n = 45) of the total sample had experienced a religious upbringing and a total of 24.0% (n = 23) of the participants perceived themselves to be a part of a religious group. In comparison to the neutral condition, participants in the sexual condition rated the stimulus clips as significantly 'more exciting', t(94) = -4.10, p < .01. Scores on the PSAS prior to the experiment did not differ from the scores on the PSAS following the experiment, t(94) = .68, p = .50. The effect of condition on permissive sexual attitudes was the same for males and females, F(1,50) = .151, p = .70.

Main Analysis

A repeated measures analysis was used to test the effect of sexual media images on permissive sexual attitudes. It was expected that after watching sexual media images, permissive sexual attitude scores would be higher than after watching neutral media images. However, watching sexual media images did not lead to higher permissive sexual attitude scores, F(1,94) = .08, p = .78. Thus, watching sexual media images did not lead to more permissive sexual attitudes.

Furthermore, a multiple regression analysis was used to test the moderation effect of religion. The dependent variable was permissive sexual attitude scores at time 2. The main effect for condition (0 = neutral; 1 = sexual) was entered in step 1. It was expected that permissive sexual attitude scores would be higher for participants in the sexual condition. This was not supported by the data. Condition did not predict permissive sexual attitude scores, b = -.13, t(95) = -.61, p = .54. The main effect for religious identity (0 = no; 1 = yes)

was entered in step 2. Religious identity predicted sexual attitude scores, b = -1.73, t(95) = -10.73, p < .01. Moreover, religious identity explained a significant proportion of variance in permissive sexual attitude scores, $R^2 = .55$. The interaction effect of condition and religious identity was entered in step 3. It was expected that permissive sexual attitude scores would be higher for religious participants in the sexual condition. However, the results indicated that the interaction between watching sexual media images and religious identity was not a significant predictor of permissive sexual attitude scores, b = .33, t(95) = 1.03, p = .31. Thus, young adults with a religious identity were not affected stronger by watching sexual media images than their nonreligious peers.

Discussion

Several scientists have questioned whether there is a causal relationship between sexual media consumption and permissive sexual attitudes. The aim of this study was to seek experimental confirmation of a possible influence of sexual media consumption on young adults' permissive sexual attitudes. However, the results showed that watching sexual media images does not lead to more permissive sexual attitudes. Beforehand, the opposite was expected based on several studies published in the last two decades concerning the influence of media consumption on sexual attitudes (i.e., Greeson & Williams, 1986; Kalof 1999; Ward, 2002; Hawk, et al., 2006; Peter & Valkenburg, 2006). However, the results of this study do support the findings of Beentjes and colleagues (2008), who found no correlation between watching rap/hiphopvideoclips and permissive sexual attitudes. Beentjes and colleagues (2008) stated that the proximal environment of young adults, such as with dating culture, is more important than the content of music video clips in the establishment or change in sexual attitudes. Perhaps, the information about permissiveness in the stimulus clips in this study is not valuable enough to actually establish change in sexual attitudes.

A specific test of a person-environment interaction was incorporated in this study. It was expected based on the forbidden fruit hypothesis (Bushman & Cantor, 2007) that a religious identity would increase the influence of sexual media consumption on permissive sexual attitudes. This study found that a religious identity does not moderate the relation between sexual media consumption and permissive sexual attitudes in young adults. In other words, the forbidden fruit hypothesis was not supported by the data of this study. The forbidden fruit hypothesis has been supported by research concerning video games (Bijvank, Konijn, Bushman, Roelofsma, 2009). Specifically, violent video games are known to increase aggressive behavior in children and young adults and exposure to violent video games increases physiological arousal and aggression-related thoughts and feelings (Anderson & Bushman, 2001). The influence of a classification system based on age was investigated and video games that were rated 18+ were found to be more tempting for young children, confirming the forbidden fruit hypothesis (Bijvank, Konijn, Bushman, Roelofsma, 2009). Maybe religious people do not view permissive sexual attitudes so much as 'restricted' but more as material that features attitudes they intrinsically do not support. Interestingly, a religious identity was found to directly predict and explain sexual attitudes. Clearly, when someone is religious he or she has a more conservative sexual attitude compared to nonreligious individuals. This finding supports previous research (Brelsford, et al., 2011; Beckwith & Morrow, 2005; Pluhar, el al., 1998).

Among the strengths of this study were the solid experimental design and the video material that fitted the regular 'TV diet' of Dutch young adults. These features give confidence that there might be a correlational but no causal relation between watching sexual media images and permissive sexual attitudes. Moreover, a person-environment interaction was taken into account by investigating the influence of a religious identity. Religious identity was found to be an important predictor of sexual attitudes.

Despite these strengths, the study is limited by the mean age of the sample and the questionnaire measuring permissive sexual attitudes. Firstly, it would be interesting for future research to focus on young adolescents. Adolescents' consumption of sexual media images increases during adolescence (Savin-Williams & Diamond, 2004) and younger adolescents might be influenced more by the behavior models portrayed in the media, because of their susceptibility to the opinion of others. Besides, for their young age adolescents have been less exposed to media images in their lives. Therefore, the influence of watching sexual media images might be greater for adolescents than for young adults. Secondly, future research could incorporate a more implicit measure for permissive sexual attitudes. In this study, the pretense of an overall values questionnaire covered the questions about permissive sexual attitudes. However, the questions start with 'I think that...' and this might give rise to socially desirable answers. For this reason an implicit association test (Greenwald, McGhee & Schwartz, 1998) might give better insight in peoples' implicit permissive sexual attitudes. Implicit attitudes are manifest as actions or judgments that are under the control of automatically activated evaluation processes, without the performer's awareness of that causation (Greenwald, et al., 1998).

A plausible explanation for the inconsistent findings in the literature with regard to media effects is based on cultural differences between the United States and The Netherlands. In The Netherlands permissive sexual attitudes are more normal and excepted than in the United States (Nikken, 2009). Maybe the influence of permissive sexual attitudes portrayed in sexual media images is stronger for young people raised in a more conservative culture. It is plausible that these adolescents and young adults will experience psychological reactance after watching sexual media images, because they think of permissive sexual attitudes as 'restricted' by their cultural environment. According to the forbidden fruit hypothesis (Bushman & Cantor, 2007) these restrictions will make the permissive attitudes more

attractive. Therefore, it would be interesting to compare permissive sexual attitudes for different cultural groups in future research.

In conclusion, this present study indicates that watching sexual media images does not lead to more permissive sexual attitudes and that a religious identity does not moderate this relation. Furthermore, it was found that religious young adults hold more conservative sexual attitudes. Based on previous research it seems plausible that there is a relation between sexual media consumption and permissive sexual attitudes, but whether this concerns a causal relation is unclear. Future experimental research is needed to determine the possible presence of causality. Subsequently movie ratings will be based upon true science and hopefully movie ratings all over the globe will be less inconsistent.

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References

- Anderson, C. A., & Bushman, B. J. (2001). Effects of violent video games on aggressive behavior, aggressive cognition, aggressive affect, physiological arousal, and prosocial behavior: A meta-analytic review of the scientific literature. *Psychological science*, *12*, 353-359. doi: 10.1111/1467-9280.00366
- Baams, L., Overbeek, G., Dubas, J. S., Doornwaard, S., Rommes, E., & Van Aken, M., (submitted). Seeing and believing: Perceived realism moderates the relation between sexualized media consumption and permissive sexual attitudes in adolescence.
- Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory.

 Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. (2001). Social cognitive theory of mass communication. *Media psychology*, *3*, 265-299. doi: 10.1207/S1532785XMEP0303_03
- Becker, J. (2003). De vaststelling van de kerkelijke gezindte in enquêtes: 40 of 60% buitenkerkelijken? Den Haag: Sociaal Cultureel Planbureau.
- Beckwith, H. D., & Morrow, J. A. (2005). Sexual attitudes of college students: The impact of religiosity and spirituality. *College Student Journal*, *39*, 357-366.
- Beentjes, J. W. J., Konig, R. P., & Krzeszewski, D. (2008). Muziekvideo's en seksuele opvattingen: een enquête onder jongeren. *Tijdschrift voor communicatiewetenschap*, 36, 234-252.
- Bijvank, M. N., Konijn, E. A., Bushman, B. J., & Roelofsma, P. H. M. P. (2009). Age and violent-content labels make video games forbidden fruits for youth. *Pediatrics*, *123*, 870-877. doi: 10.1542/peds.2008-0601
- Brehm, J.W. (1966). A Theory of Psychological Reactance. New York, NY: Academic Press.
- Brelsford, G. M., Luquis, R., & Murray-Swank, N. A. (2011). College students' permissive

- sexual attitudes: Links to religiousness and spirituality. *The International Journal for the Psychology of Religion*, 21, 127-136. doi: 10.1080/10508619.2011.557005
- Bushman, B., & Cantor, J. (2007). Forbidden fruit hypothesis. In *Encyclopedia of children, adolescents, and the media*. (pp. 359-360). Thousand Oaks, CA: SAGE Publications, Inc. doi: 10.4135/9781412952606.n183
- De Graaf, H. D., Nikken, P., Felten, H., Janssens, K., & Berlo, W. V. (2008). Seksualisering:

 Reden tot zorg. *Een verkennend onderzoek onder jongeren. Utrecht: Rutgers Nisso Groep/Nederlands Jeugdinstituut/Movisie*.
- Fogarty, J. S. (1997). Reactance theory and patient non-compliance. *Soc Sci Med*, 45, 1277-1288.
- Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. (1998). Measuring individual differences in implicit cognition: the implicit association test. *Journal of personality and social psychology*, 74, 1464-1480.
- Greeson, L. E., & Williams, R. A. (1986). Social implications of music videos for youth: An analysis of the content and effects of MTV. *Youth and Society*, *18*, 177-89. doi: 10.1177/0044118X86018002005
- Hawk, S. T., Vanwesenbeeck, I., De Graaf, H., & Bakker, F. (2006). Adolescents' contact with sexuality in mainstream media: A selection-based perspective. *Journal of Sex Research*, 43, 352-363. doi: 10.1080/00224490609552334
- Kalof, L. (1999). The effects of gender and music video imagery on sexual attitudes. *The Journal of Social Psychology*, *139*, 378–385. doi: 10.1080/00224549909598393
- Nikken, P. (2009). Seksualisering en de jeugd van tegenwoordig: de media als zondebok. *Tijdschrift voor Seksuologie*, *33*, 84-96.
- Peter, J., & Valkenburg, P. M. (2006). Adolescents' exposure to sexually explicit material on the internet. *Communication Research*, *33*, 178-204. doi: 10.1177/0093650205285369

- Pluhar, E., Frongillo, E. A., Stycos, M., & Dempster-McClain, D. (1998). Understanding the relationship between religion and the sexual attitudes and behaviors of college students. *Journal of Sex Education and Therapy*, 23, 288–296.
- Savin-Williams, R. C. and Diamond, L. M. (2004). Sex. In R. M. Lerner and L. Steinberg (Eds.), *Handbook of Adolescent Psychology, 2nd edition* (pp. 189-231). New York: Wiley.
- Strouse, J.S., & Buerkel-Rothfuss, N. L. (1987). Media exposure and the sexual attitudes and behaviors of college students. *Journal of Sex Education & Therapy*, 13, 43-51.
- Strouse, J.S., Buerkel-Rothfuss, N. L., & Long, E. C. J. (1995). Gender and family as moderators of the relationship between music video exposure and adolescent sexual permissiveness. *Adolescence*, *30*, 505-521.
- Ward, L. M. (2002). Does television exposure affect emerging adults' attitudes and assumptions about sexual relationships? Correlational and experimental confirmation. *Journal of Youth and Adolescence*, *31*, 1-15. doi: 10.1023/A:1014068031532
- Ward, L. M. (2003). Understanding the role of entertainment media in the sexual socialization of American youth: A review of empirical research. *Developmental Review*, 23, 347-388. doi: 10.1016/S0273-2297(03)00013-3
- Ward, L. M., & Friedman, K. (2006). Using TV as a guide: Associations between television viewing and adolescents' sexual attitudes and behavior. *Journal of Research on Adolescence*, *16*, 133-156. doi: 10.1111/j.1532-7795.2006.00125.x

Table 1

Scores on the permissive sexual attitude scale for condition, sex and religious identity prior to the experiment (time 1) and directly following the experiment (time 2).

			PSAS ((time 1)	PSAS (time 2)	
		n	M	SD	M	SD
Condition						
	Sexual	52	3.71	0.92	3.69	0.92
	Neutral	44	3.85	1.10	3.82	1.09
Gender						
	Male	32	3.79	1.07	3.80	1.09
	Female	64	3.77	0.98	3.72	0.96
Religious identity						
	No	73	4.20	0.53	4.16	0.56
	Yes	23	2.43	0.99	2.43	0.96