Adolescent sexual socialization & teen magazines: a cross-national study between the United States and the Netherlands

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CHAPTER 4

Teen Magazine Reading and Fear of Sex: A Comparison of US and Dutch Young People

Abstract
The aim of this study is to investigate, from a cross-national comparative perspective, if teen magazine reading is associated with fear of sex and whether this differs by young people's religiosity. We linked data from a quantitative cross-national content analysis of the three most popular US (i.e., Seventeen, CosmoGirl! United States edition, and Teen) and Dutch teen magazines (i.e., Fancy, CosmoGirl! Netherlands edition, and Girlz!) to a survey held among 315 Dutch and 175 US female college students. As expected on the basis of cultivation theory, frequent reading of teen magazines was associated with more fear of sex for US respondents but not for Dutch respondents. When delving deeper into specific content within the teen magazines, exposure to specific messages about sexual risk and sexual pleasure were not linked to fear of sex for US or Dutch respondents. However, US respondents with lower levels of religiosity showed a positive association between exposure to specific messages about sexual risk and fear of sex, while no association was present for highly religious US respondents or Dutch respondents with high or low levels of religiosity. Both for US and Dutch respondents, there was no association between exposure to specific messages about sexual pleasure and fear of sex, regardless of the respondents’ level of religiosity. Findings indicate that teen magazine reading and young people’s fear of sex is culturally contingent, and varies according to level of religiosity.

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Teen magazines are immensely popular, especially among teenage girls, and provide important sexual information for young people (Kaiser Family Foundation, 2003; Walsh & Ward, 2010; Ward, 2003). As a result, teen magazines have been identified as one of the most influential media affecting young people’s sexual socialization (for a review, see Ward, 2003). For instance, a study by Walsh and Ward (2010) found that young people who read magazines more often had more sexual health knowledge, safe-sex self-efficacy, and consistent use of contraceptives. Similarly, Kim and Ward (2004) reported that young women’s reading of women’s and teen magazines was associated with support for more sexually assertive roles for females, but was also related to a stronger endorsement of male sexual stereotypes and views of sex as risky. In addition, frequent reading of sexual content in magazines has been linked to specific sexual partner trait preferences (Taylor, 2008).

Despite our growing understanding of teen magazines’ role in young people’s sexual socialization, several gaps in the literature require attention. First, research typically focuses on teenagers’ sexual beliefs and attitudes. Although sexual beliefs and attitudes are important aspects of sexual socialization, several scholars have emphasized that other more emotional aspects, notably young people’s worries and fears about sex, should not be neglected (e.g., Brown, Steele, & Walsh-Childers, 2002; Peter & Valkenburg, 2008). Second, most of the current research comes from the United States (US), but previous research indicates that cultural differences significantly influence teen magazine coverage (Carpenter, 2001; Joshi, Peter, & Valkenburg, 2011, 2012, in press), and the effects of media coverage in general (Peter, 2003, 2004). Our existing knowledge may thus be culturally biased. Third and finally, various researchers have called for more attention to individual differences in the link between media coverage and young people’s sexual socialization (e.g., Brown, 2009; Malamuth & Huppin, 2005; Ward, 2003). Still, we know little about the extent to which individual characteristics may strengthen or weaken this link. This holds particularly true for the association between reading teen magazines and sexual socialization.

In response to these three shortcomings, the present study has three goals. First, this study aims to investigate the relationship between reading teen magazines and fear of sex. Although engaging in sex during adolescence is increasingly seen as a normative developmental step (e.g., Collins, Welsh, & Furman, 2009; Grello, Welsh, Harper, & Dickson, 2003; Tolman & McClelland, 2011), teenagers often express uncertainties, worries, or fears about sex; for example, about unwanted pregnancies and sexually transmitted diseases (STDs) (Carpenter, 2005; Tolman, 2002). At the same time, several content analyses have shown that the risks of sex feature prominently in the coverage of teen magazines (Garner, Sterk, & Adams, 1998; Johnson, Gothoffer, & Lauffer, 1999; Joshi et al., 2011; Kim & Ward, 2004). Therefore, it seems possible that reading teen magazines and fear of sex are related.

The second goal of the present study is to examine whether the relationship between reading teen magazines and fear of sex differs between countries. Based on existing research that demonstrates considerable differences between how US and Dutch teen magazines cover the negative and positive aspects of sex (Joshi et al., 2011), we study
whether fear of sex may be differentially related to the reading of teen magazines in the US and the Netherlands. In our cross-national comparative analysis, we not only deal with the general reading of teen magazines, but we also study which specific messages in teen magazines may be related to fear of sex.

The third and final goal of this study is to shed some light on whether the strength of the association between reading teen magazines and fear of sex may depend on individual differences. Scholars focusing on the relationship between adolescents’ media use and their sexual socialization in particular have emphasized the need to study which individual characteristics of adolescents strengthen or weaken this relationship (Brown, 2009; Malamuth & Huppin, 2005; Ward, 2003). One important disposition within the context of fear of sex may be religiosity, as existing literature indicates that religious individuals tend to be more fearful of sex (e.g., Afifi, Joseph, & Aldeis, 2008). Thus, we study whether young people’s religiosity weakens or strengthens the link between magazines and fear of sex, and whether this applies differentially to young people in the US and the Netherlands.

Teen Magazine Reading and Fear of Sex

Cultivation theory is often used to explain the association between sexual media content and adolescents’ sexual socialization (Brown et al., 2002; Ward, 2003). Cultivation theory generally posits that people who more often use media, notably television, are more likely to believe that the real world is similar to the most common messages portrayed in the media than to people who use media less often (Morgan, Shanahan, & Signorielli, 2009). For at least two reasons, cultivation offers an appropriate theoretical framework for the present study. First, fear is a central concept in cultivation theory (for a review, see Morgan & Shanahan, 2010). Although cultivation theory typically focuses on fear of crime, studying fear of sex may present a fruitful extension of the theory, particularly in the context of media and young people’s sexual socialization (e.g., Ward, 2003). Second, cultivation theory is well suited to cross-national comparative studies (Gerbner, 1977, 1989; Morgan, 1990). With cultivation theory’s interest in the system-level influences on media coverage and its consequences, cross-national comparative studies are seen as “the best test of system-wide similarities and differences across national boundaries, and of the actual significance of national cultural policies” (Morgan et al., 2009, p. 42). Cross-national comparative studies can thus greatly enhance our understanding of the explanatory scope and limits of cultivation theory.

While cultivation theory strongly focuses on television, it may also be applied to teen magazines (Walsh & Ward, 2010). The existence of “popular storytelling systems and [of] purveyors of widely shared messages” are the basic condition for the investigation of cultivation processes (Morgan & Shanahan, 2010, p. 350). With 70% of US girls reading teen magazines regularly (Kaiser Family Foundation, 2003), teen magazines are extremely popular among young people. Moreover, content analyses have shown that messages about femininity, relationships, and sex conveyed by teen magazines are homogeneous and widely shared (for a review, see Ward, 2003). Finally, teen magazines are particularly suitable for
cross-national comparative cultivation studies. While television programming in many countries is heavily US-dominated, the content in magazines tends to be more culture-specific and vary between different countries (Carpenter, 2001; Joshi et al., 2011, 2012, in press).

Two countries that lend themselves to a meaningful comparison of the link between magazine content and young people’s fear of sex are the US and the Netherlands. While the countries are relatively similar in many political, economic, and cultural indicators, they differ decidedly in matters surrounding adolescent sexuality (Hofstede, 1998a, 1998b, 2001; Schalet, 2000). Generally, sex is considered to be a much more normal part of adolescence in the Netherlands than it is in the US (Hofstede, 1998a, 1998b; Schalet, 2000). This country difference has also been found in a recent cross-national comparative content analysis of Dutch and US teen magazines (Joshi et al., 2011). This analysis yielded that 33% of the articles about sex in US teen magazines emphasized sexual risk while only 17% of the articles did so in Dutch teen magazines. Assuming that the most popular teen magazines in the US and the Netherlands are “purveyors of widely shared messages” (Morgan & Shanahan, 2010, p. 350), we hypothesize based on cultivation theory:

**H1:** The association between reading teen magazines and fear of sex will be stronger among US young people than among Dutch young people.

In cultivation theory, investigating the effects of overall or general exposure to a medium, as focused on in H1, is an integral part of the notion that media convey relatively homogenous messages to people (for an elaboration, see e.g., Morgan et al., 2009; Morgan & Shanahan, 2010). The focus on overall or general exposure to a medium makes sense, especially when accompanied by large-scale message system analysis (i.e., content analysis; Gerbner 1969). After all, the underlying idea of cultivation theory is that a particular message is so prevalent in the medium that one cannot avoid it. When comparing cultivation effects in different countries, message system analysis may not only indicate that the prevalence of the same message varies, but also that different and possibly opposite messages prevail in the countries. Potential country differences in the relationship between media use and fear of sex may thus result from the dominance of a particular message in one country and its (near-) absence in another country, as well as from the prevalence of two different, possibly opposite messages in both countries. Therefore, it may be useful to investigate not only the overall exposure to teen magazines, but also the exposure to specific messages that occur within these magazines. This approach may help us better understand which specific messages in the teen magazines may be related to country differences for fear of sex.

A recent cross-national comparative content analysis suggests that specific messages within teen magazines indeed vary in their prevalence across countries. The negative aspects of sexuality, for example the risks of sexual activities, dominated US teen girl magazines while they only rarely occurred in Dutch teen girl magazines (Joshi et al., 2011).
However, US and Dutch teen girl magazines not only differed in how they dealt with the negative aspects of sexuality, but also in how they dealt with the positive aspects of sexuality. The pleasures associated with sex were mentioned in 25% of the articles in Dutch magazines, but only in 10% of the articles in US magazines. These results raise the question of whether the country difference between the coverage of sexual risk or the coverage of sexual pleasure explains the hypothesized differential association between reading teen magazines and fear of sex in the US and the Netherlands.

It is well known in cultivation theory that if contexts (e.g., countries) differ, then the associations between media use and variables of interest may also differ (Gerbner, 1969, 1977). An important concept within cultivation theory that explains these differential associations depending on people's contexts is the concept of resonance. This concept posits that an association between media use and certain variables of interest is intensified when the context or environment of people is congruent with the messages they receive from the media (Gerbner & Gross, 1976). In such cases, media messages are said to resonate with what people experience within a particular context or environment.

Messages in teen magazines about the risks of sex may be more congruent with the context in which US youth grow up than that in which Dutch youth grow up. In the US, teenage sex is approached with much more apprehension than it is in the Netherlands (Hofstede, 1998b; Schalet, 2000, 2011). Compared to the Netherlands, parents and schools in the US more strongly endorse the belief that engaging in sex during adolescence is not appropriate and they often emphasize the dangers associated with teenage sex, such as STDs, unwanted pregnancies, and sexual abuse (Carpenter, 2001; Herzog, 2008; Laker, 2006; Pinkleton, Austin, Cohen, Chen, & Fitzgerald, 2008). Because messages about the risks of sex may resonate more with US young people than with Dutch young people, we hypothesize:

H2a: The positive association between exposure to specific messages about sexual risk in teen magazines and fear of sex will occur among US young people and not among Dutch young people.

Conversely, messages about the pleasures of sex seem more congruent with the environment in which Dutch youth grow up. Overall, teenage sex is more normalized and culturally acceptable in the Netherlands (Hofstede, 1998a, 1998b; Schalet, 2000). Compared to the US, parents and schools in the Netherlands consider teenage sex to be a normal developmental step (Elliot, 2010; Schalet, 2000). Educational programs focus on increasing adolescents' enjoyment when engaging in sex (Schalet, 2000) and try to minimize the drawbacks. Thus, messages about sexual pleasure may resonate more with Dutch young people than with US young people, and are likely to reduce fear of sex among Dutch youth more strongly than among US youth. We therefore hypothesize:
H2b: The negative association between exposure to sexual pleasure in teen magazines and fear of sex will occur among Dutch young people and not among US young people.

Religiosity as an Individual Difference

In the past years, interest in individual differences in the associations between media use and various outcome variables has grown (e.g., Besley, 2006; Oliver & Krakowiak, 2009; Peter & Valkenburg, 2010). Scholars focusing on the relationship between adolescents’ media use and their sexual socialization have emphasized that we need to study which individual characteristics of adolescents strengthen or weaken this relationship (Brown, 2009; Malamuth & Huppin, 2005; Ward, 2003). Although cultivation scholars have not devoted much attention to individual difference variables, these variables are routinely investigated in empirical cultivation studies, albeit typically as control variables (Harrison, 2003; Zurbriggen & Morgan, 2006). Consequently, it seems useful to study whether the link between the reading of teen magazines and fear of sex may be stronger or weaker depending on individual characteristics.

One explanation for why the association between teen magazine reading and fear of sex could depend on individual characteristics can be derived from the disposition-content congruency hypothesis (Valkenburg & Peter, 2011). This hypothesis states that media content which is congruent with an individual’s disposition has a greater impact than incongruent media content. Congruent media content refers to media content that includes events or characters that are particularly familiar or relevant to the media user’s own disposition. Alternatively, incongruent media content would be material that is not in line with the media user’s own disposition.

An important disposition within the context of sexual relations and fear of sex may be religiosity, which can be broadly defined as “a set of institutionalized beliefs, doctrines and rituals, and ethical standards for how to live a good life” (Haglund & Fehring, 2010, p. 461). Based on past research, compared to non-religious people, religious individuals tend to be more fearful of sex because they focus more on the risks of sex, such as unwanted pregnancy (Afifi et al., 2008). Similarly, religious individuals show feelings of guilt and regret about sex because they consider sex to only be legitimate for procreation (Murstein & Mercy, 1994). In contrast, less religious individuals may see sexual pleasure as an important and valid reason to engage in sex.

These findings suggest that the messages within teen magazines that emphasize sexual risk may be congruent with readers who are religious and incongruent with readers who are not religious. In contrast, the messages in teen magazines that emphasize the pleasures of sex may be congruent with readers who are not religious and incongruent with readers who are religious. Therefore, based on the disposition-content congruency hypothesis, it is likely that exposure to sexual risk in teen magazines is associated with greater fear of sex among religious readers than among non-religious readers. Conversely, it
is likely that exposure to sexual pleasure reduces fear of sex more strongly among non-religious readers than among religious readers.

Nonetheless, the moderating impact of religiosity on the association between reading teen magazines and fear of sex cannot be separated from a particular country context. Although religious people exist in both the US and the Netherlands, there has been a much stronger trend toward secularization in the Netherlands than in the US (Amelink, 2007; Sengers, 2005). Whereas 83% of people in the US belong to a religious denomination (Amelink, 2007; Putnam & Campbell, 2010), it is 60% in the Netherlands, with only 20% of Dutch people attending church or mosque at least once a week (Statistics Netherlands, 2008). Moreover, the influence of churches and religion on public affairs is smaller in the Netherlands than in the US (Pew Global Attitudes Project, 2002). This is strongly visible for sexual matters; for instance, while the Dutch approach to adolescent sexuality is based on pragmatism and scientific evidence (Braeken, Rademakers, & Reinders, 2002, Schalet, 2000, 2011), religious influences are still very strong in the US (Luker, 2006; Schalet, 2000).

In line with the resonance concept, it is thus possible that the extent of religiosity in a country may influence the extent to which individual religiosity moderates the association between reading teen magazines and fear of sex. When individual religiosity resonates with religiosity in a country, the association between reading teen magazines and fear of sex will be boosted. When individual religiosity conflicts with religiosity in a country, the association between reading teen magazines and fear of sex will be diminished. Focusing on specific exposure to sexual risk and sexual pleasure, we hypothesize:

H3a: The positive relationship between exposure to sexual risk and fear of sex expected for religious young people rather than for non-religious young people will occur in the US and not in the Netherlands.

H3b: The negative relationship between exposure to sexual pleasure and fear of sex expected for non-religious young people rather than for religious young people will occur in the Netherlands and not in the US.

Method

This study combines survey data of US and Dutch undergraduate college students with content analysis data from the three most popular teen magazines in the US and the Netherlands. Linking surveys and content analyses permits the researchers to specify the extent to which individuals encounter particular messages when using specific media. Although the combination of survey and content analytic data has often been used in political communication (e.g., Peter, 2003, 2004), it has hardly been applied in research on media and adolescents’ sexual socialization. Several researchers have therefore called for a linkage of survey and content analytic data (e.g., Ward, 2003).

Survey – Sample and Procedure

In February and March 2011, we conducted a survey among 175 US and 315 Dutch female college students. Response rates were 100% in the US and 95.2% in the Netherlands,
resulting in 175 US participants and 300 Dutch participants. Participants were recruited from large public universities in Chapel Hill, North Carolina, US and Amsterdam, the Netherlands. All students were enrolled in social scientific courses, being as diverse as Media and Entertainment to Race and Gender. We opted for an all-female sample because females constitute the main readership of teen girl magazines. We chose a sample of US and Dutch college students because the public school system we contacted in the US did not grant permission to collect data related to sexual topics from minors (i.e., those under the age of 18 years; see rejection letter in the Appendix on p. 93). College students were the closest age group to adolescents and could be assumed to read teen magazines. Although the two samples constituted convenience samples, they were reasonably diverse. For example, in terms of ethnicity, 54.9% of the US participants identified themselves as European/Caucasian American, 32% as African American, 6.3% as Mixed, 3.4% as Pacific Islander/Asian American, 2.3% as Latino/Hispanic/South American, and 1.1% as Native American. The ethnic background of the Dutch participants included 86% Native Dutch, 9% Other, 2.5% Surinamese Dutch, 1% Turkish Dutch, 0.6% Moroccan Dutch, 0.3% Turkish, 0.3% Moroccan, and 0.3% Antillean.

After institutional and lecturers’ approval as well as informed consent from all participants were obtained, the questionnaires were administered in classrooms or lecture halls. Participants were notified that the study was about attitudes regarding sex, sexuality, and relationships. Participation was voluntary and students could end their participation at any time they wished. Each participant received a 10-page questionnaire and were told that the questionnaire was anonymous and should be filled out in private. On average, it took the respondents 15 minutes to complete the questionnaire. Those who participated were enrolled in a lottery to win an entertainment gift card of 10 dollars or 10 euro. The lottery took place directly after the questionnaire was administered.

**Content Analysis – Sample and Procedure**

A quantitative content analysis of the most popular US (i.e., *Seventeen, CosmoGirl! United States edition*, and *Teen*) and Dutch teen girl magazines (i.e., *Fancy, CosmoGirl! Netherlands edition*, and *Girlz!* was conducted for the publication years 2006, 2007, and 2008. Please refer to Chapter 1 for a rationale for the magazines chosen and why we opted for these specific years for our content analysis. The unit of analysis for this study was a feature story. Please see Chapter 1 for a description of a feature story. A total of 2496 feature stories passed the initial screening for coding. Seven hundred and fifty-three feature stories were from the US magazines and 1743 feature stories were from the Dutch magazines. Of these feature stories, 627 were sex-related stories with 162 stories from the US magazines and 465 stories from the Dutch magazines.

The codebook used for this study was an extension of a codebook used in a previous content analysis of US teen girl magazines (Joshi, Peter, & Valkenburg, 2010). Three native American-English speakers served as coders for the US teen magazines, and five native Dutch speakers served as coders for the Dutch teen magazines. The coders were trained by the principle investigator and a research assistant. Inter- and intra-coder reliability tests were
conducted separately for the US and Dutch groups with overall very good results. A more extensive description of the coding procedure, coder training, and the results of the reliability tests can be found in Chapter 1.

Measures – Key Variables

Exposure to magazines. To measure exposure to magazines, we asked survey respondents how often they read magazines when they were a teenager (ages 13 to 17 years). Asking respondents retrospectively about their exposure to a particular medium during adolescence is often done when ethical issues impair surveying adolescents. It produces valid results (e.g., Stulhofer, Busko, & Landpriet, 2010) – notably when habitual behavior such as reading magazines is involved – which respondents can generally report well. For each country, we provided respondents with a list of the most popular magazines in their country. Responses were on a 5-point scale (1 = never and 5 = always, each issue). In order to link survey data with content analytic data, we only included the most popular magazines from each country in our analysis. For the US, we included Seventeen, CosmoGirl! United States edition, and Teen magazines (\(M = 1.92, SD = 1.13\)). For the Netherlands, we included Fancy, CosmoGirl! Netherlands edition, and Girlz! (\(M = 2.26, SD = 1.24\)).

Exposure to messages about sexual risk. We operationalized this variable as the number of stories in a specific teen magazine that conveyed messages about sexual risk multiplied by the frequency with which a respondent read that magazine. When respondents never read a particular magazine, the number of stories were multiplied by zero. When respondents read all issues of a particular magazine, the numbers of stories were multiplied by one. The remaining response categories of the aforementioned 5-point scale were multiplied by .25, .50, or .75. This procedure resulted in a weighted exposure score per magazine for each respondent. The weighted exposure scores per magazine were then added up for all three magazines, separately for the respondents in the two countries.

In the content analysis, sexual risk was measured by asking if sex was depicted as something dangerous (e.g., sexual abuse, rape, men’s aggression), dirty (e.g., if a person has sex he/she is no longer “pure”), and/or disease-ridden (e.g., if a person has sex he/she is likely to contract STDs). Categories to choose from were, “sex is dirty, dangerous, and/or disease-ridden for…”: “only boy(s),” “only girl(s),” “both boy(s) and girl(s),” and “no one/not mentioned.” Because we were interested in relationships between the coverage of risk and females’ fear of sex, we only included the number of stories that mentioned sexual risk for girls.\(^1\) For details on the reliabilities of this category, see Chapter 1.

Exposure to messages about sexual pleasure. To operationalize this variable, we followed the same strategy as the one for exposure to messages about sexual risk. Thus, the number of stories in a particular teen magazine that depicted sex as a pleasurable activity were multiplied by the frequency with which a respondent read the magazine. The resulting weighted score per magazine was added up for all three magazines, separately for the respondents in the two countries.

In the content analysis, sexual pleasure referred to sex being depicted as something delightful, pleasant, enjoyable, and/or one or more partners in the story enjoying the act of
giving or receiving sexual pleasure. The depiction of sex as pleasurable was assessed separately for boys and girls in the story. Categories included “yes,” “no,” and “not mentioned.” Because we were interested in relationships between the coverage of pleasure and females’ fear of sex, we only included the number of stories that mentioned sexual pleasure for girls.² For details on the reliabilities of this category, see Chapter 1.

Fear of sex. A 4-item Fear of Sex Scale was used to measure the extent to which respondents were afraid of engaging in sexual relations. The scale is part of the Multidimensional Sexual Self-Concept Questionnaire (MSSCQ; Snell, 1998) which measures 20 psychological aspects of human sexuality, with fear of sex being one of them. The Fear of Sex Scale has demonstrated high reliability and validity in previous studies (e.g., Fisher & Snell, 1995; Snell, Fisher, & Miller, 1991). Sample items include, “I am a little afraid of becoming sexually involved with another person,” and “I am occasionally fearful of engaging in sexual activity.” Possible responses ranged from 1 (totally disagree) to 5 (totally agree). The four items loaded on one factor in each country (explained variance 80% in the US and 81% in the Netherlands) and had sufficient internal consistency (Cronbach’s alphaUSA = .91, MUSA = 2.26, SDUSA = 1.14; Cronbach’s alphaNL = .92, MNL = 1.82, SDNL = 0.97).

Religiosity. Participants were asked, “How religious are you?” Responses were on a 5-point scale (1 = not at all and 5 = very), (MUSA = 3.25, SDUSA = 1.33; MNL = 1.61, SDNL = 0.92). The use of a single-item measure for religiosity has been shown to be reliable and valid (e.g., Abdel-Khalek, 2007; Gorsuch & McFarland, 1972).

Country. The Netherlands was coded as zero. The US was coded as one.

Measures – Control Variables

Due to the correlational nature of this study and its inherent risk of omitted variable bias, we included several control variables in our analytical models that have been shown, or can reasonably be assumed, to affect fear of sex based on earlier research: age (Kim & Ward, 2004), ethnicity (Brown et al., 2006), religiosity (Walsh & Ward, 2010), political orientation of respondent and parents (Luker, 2006), sex education (Schalet, 2000), committed relationship in present and past (Taylor, 2008), exposure to reality television (Zurbriggen & Morgan, 2006), use of pornography (Peter & Valkenburg, 2010), sensation seeking (Peter & Valkenburg, 2008), and sex talk with peers and parents (Sinha, Curtis, Jayakody, Viner, & Roberts, 2006).

Age. We asked respondents to report their age at the time of survey administration in the spring of 2011. The mean age of the US sample was 20.53 years (SD = 1.71) and the mean age of the Dutch sample was 20.77 years (SD = 3.39).

Ethnicity. Respondents were asked to fill in their primary ethnic background. Answer categories for the US respondents included, “European/Caucasian American,” “Latino/Hispanic/South American,” “African American,” “Pacific Islander/Asian American,” “Middle Eastern American,” “Native American,” and “Mixed” (based on Walsh & Ward, 2010). Responses for the Dutch participants included, “Native Dutch,” “Turkish Dutch,” “Moroccan Dutch,” “Surinamese Dutch,” “Dutch Antillean,” “Turkish,”
“Moroccan,” “Surinamese,” “Antillean,” and “Other” (based on Peter & Valkenburg, 2010). We recoded the variable into a dummy variable where one indicated “European/Caucasian American” in the US and “Native Dutch” in the Netherlands, and the other ethnicities were coded as zero.

**Political orientation of respondent.** We asked participants, “When it comes to political orientation, people often talk about ‘left’ (liberal) and ‘right’ (conservative). Please indicate below where you would place yourself.” Possible responses ranged from 1 (left) to 11 (right), with 6 = middle (MUSA = 5.09, SDUSA = 2.36; MNL = 4.69, SDNL = 2.29).

**Political orientation of parents.** Participants were asked to report the political orientation of their parent(s). Responses were on an 11-point scale (1 = left, 6 = middle, and 11 = right), (MUSA = 6.28, SDUSA = 2.53; MNL = 5.12, SDNL = 2.48).

**Sex education.** We asked participants, “What type of sex education did you receive in your high school?” Possible answer categories included “abstinence only,” “comprehensive sex education (i.e., information about safe sex, contraceptives, and condoms),” and “none” (based on Walsh & Ward, 2010). Twenty-five percent of the US and 1.6% of the Dutch respondents received abstinence only sex education; 58.9% of the US and 83.7% of the Dutch sample received comprehensive sex education; and 16.6% of the US and 14.7% of the Dutch respondents received no sex education. We recoded this variable into a dichotomous variable where comprehensive sex education was coded as one, and no sex education and abstinence-only education were coded as zero.

**Committed relationship in present.** Participants were asked if they were currently in a committed relationship, and they could answer “yes” or “no.” Forty-eight percent of the US sample and 50.5% of the Dutch sample were presently in a committed relationship at the time of survey administration.

**Committed relationship in past.** Respondents were asked, “Regardless of whether you are currently in a relationship, have you ever been in a committed relationship before?” Response categories included, “no,” “yes, once,” and “yes, several times.” Twenty-one percent of the US and 27.7% of the Dutch participants had never been in a committed relationship before; 44.5% of the US and 40.8% of the Dutch sample had been in a committed relationship once before; and 34.1% of the US and 30.9% of the Dutch respondents had been in a committed relationship several times.

**Use of reality television.** Participants were asked the following about reality television programs: “When you were a teenager (age 13 to 17 years), how often did you watch reality shows (i.e., Big Brother, the Bachelor)?” Responses were on a 5-point scale (1 = never and 5 = very often), (MUSA = 2.88, SDUSA = 1.19; MNL = 2.77, SDNL = 1.12).

**Use of pornography.** Respondents were asked, “When you were a teenager (ages 13 to 17 years), how often did you watch pornography on the Internet? By pornography, we mean sexually explicit adult material” (based on Peter & Valkenburg, 2010). Possible responses ranged from 1 (never) to 5 (very often), (MUSA = 1.90, SDUSA = 1.16; MNL = 1.78, SDNL = 1.05).
**Sensation seeking.** We used the Brief Sensation Seeking Scale (Hoyle, Stephenson, Palmgreen, Lorch, & Donohew, 2002). Previous research by Peter & Valkenburg (2008) indicates that the experience-seeking items and the bungee-jumping item loaded on a different factor than the other five items of the scale. Thus, we used only these five items. The 5-item scale has demonstrated high reliability and validity in the past (Peter & Valkenburg, 2008). Sample items include “I prefer having friends who do exciting things,” and “I like wild parties.” Possible responses ranged from 1 (totally disagree) to 5 (totally agree). In our study, the five items loaded on one factor in each country (explained variance 58% in the US and 62% in the Netherlands) with good internal consistency (Cronbach’s alphaUSA = .80, MUSA = 3.57, SDUSA = 0.73; Cronbach’s alphaNL = .84, MNL = 3.32, SDNL = 0.35).

**Sex talk with peers.** A 4-item Sex Talk with Peers Scale was created based on the Sexual Self-Disclosure Scale (Herold & Way, 1988) to measure the extent to which respondents could talk with their friends about sex when they were a teenager (ages 13 to 17 years). Sample items include “When I was a teenager, I could talk well with my friends about sexual topics,” and “When I was a teenager, if it came to sex, I could talk about anything with my friends.” Possible responses ranged from 1 (totally disagree) to 5 (totally agree). The four items loaded on one factor in each country (explained variance 79% in the US and 81% in the Netherlands) with good internal consistency (Cronbach’s alphaUSA = .91, MUSA = 3.35, SDUSA = 0.13; Cronbach’s alphaNL = .92, MNL = 3.65, SDNL = 0.14).

**Sex talk with parents.** The 4-item Sex Talk with Parents Scale (based on the Sexual Self-Disclosure Scale by Herold & Way, 1988) was used to determine the extent to which respondents could talk with their parents about sex when they were a teenager (ages 13 to 17 years). Sample items include “When I was a teenager, I was very satisfied with the way I could talk with my parent(s) about sexual topics,” and “When I was a teenager, my parents were always open to a conversation about sexual topics.” Response categories ranged from 1 (totally disagree) to 5 (totally agree). The four items loaded on one factor in each country (explained variance 78% in the US and 75% in the Netherlands) with sufficient internal consistency (Cronbach’s alphaUSA = .91, MUSA = 2.47, SDUSA = 0.22; Cronbach’s alphaNL = .89, MNL = 2.95, SDNL = 0.37).

**Data Analysis**

To test our hypotheses, we performed ordinary least squares (OLS) regressions. Because the Dutch sample was considerably larger than the US sample, we weighted the Dutch respondents down and the US respondents up, while preserving the overall sample size. To analyze the country differences predicted in Hypotheses 1 and 2 most rigorously, we created an interaction term between the various exposure measures and country. The country differences in how religiosity moderates the relation between exposure and fear of sex as hypothesized in Hypothesis 3 were analyzed with three-way interactions between the exposure measure, religiosity, and country. In line with procedures described by Aiken and West (1991), significant interaction effects were post-hoc probed for whether particular
values of the moderating variable differed significantly from zero. We did not center the variables involved in the various interaction terms because we were interested in the unstandardized coefficients rather than in the standardized ones (Hayes, 2005).

**Results**

Hypothesis 1 stated that the association between reading teen magazines and fear of sex would be stronger among the US youth than the Dutch youth. As Table 4.1 shows, a significant interaction emerged between general exposure to teen girl magazines and country \( (B = .195, SE = .099, p < .05) \). Including the interaction term between general exposure and country into the model increased the explanatory power of the regression model significantly. As can be seen in Table 4.1, the more US respondents were exposed to US teen magazines, the more fear of sex occurred \( (B = .195, SE = .099, p < .05) \). However, there was no significant effect of fear of sex on the Dutch respondents who were exposed to Dutch teen magazines \( (B = -.144, SE = .076, ns) \). These results were also confirmed by post-hoc probing. Hypothesis 1 was therefore supported.

**Table 4.1** Association between reading teen magazines and fear of sex

<table>
<thead>
<tr>
<th>Variable</th>
<th>( B ) (SE)</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>3.855 (.554)</td>
<td>[2.767, 4.942]</td>
</tr>
<tr>
<td>Age</td>
<td>-.047 (.018)**</td>
<td>[-.082, -.012]</td>
</tr>
<tr>
<td>Country (US = 1)</td>
<td>-.336 (.265)</td>
<td>[-.858, .185]</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>-.120 (.106)</td>
<td>[-.327, .088]</td>
</tr>
<tr>
<td>Sex education</td>
<td>-.071 (.095)</td>
<td>[-.257, .115]</td>
</tr>
<tr>
<td>Committed relationship present</td>
<td>-.396 (.084)***</td>
<td>[-.561, -.230]</td>
</tr>
<tr>
<td>Committed relationship past</td>
<td>-.094 (.056)</td>
<td>[-.204, .017]</td>
</tr>
<tr>
<td>Political orientation respondent</td>
<td>.009 (.025)</td>
<td>[-.039, .058]</td>
</tr>
<tr>
<td>Political orientation parent</td>
<td>-.009 (.023)</td>
<td>[-.053, .035]</td>
</tr>
<tr>
<td>Reality TV</td>
<td>.028 (.040)</td>
<td>[-.050, .107]</td>
</tr>
<tr>
<td>Internet porn</td>
<td>-.047 (.051)</td>
<td>[-.148, .055]</td>
</tr>
<tr>
<td>Religiosity</td>
<td>.160 (.038)***</td>
<td>[.086, .235]</td>
</tr>
<tr>
<td>Sensation seeking</td>
<td>-.005 (.061)</td>
<td>[-.126, .115]</td>
</tr>
<tr>
<td>Sex talk peers</td>
<td>-.091 (.045)*</td>
<td>[-.180, -.003]</td>
</tr>
<tr>
<td>Sex talk parents</td>
<td>-.031 (.040)</td>
<td>[-.110, .048]</td>
</tr>
<tr>
<td>Magazine reading</td>
<td>-.144 (.076)</td>
<td>[-.293, .006]</td>
</tr>
<tr>
<td>Magazine reading X Country</td>
<td>.195 (.099)*</td>
<td>[.001, .389]</td>
</tr>
<tr>
<td>( \Delta R^2 )</td>
<td>.007*</td>
<td></td>
</tr>
<tr>
<td>( R^2 )</td>
<td>.230</td>
<td></td>
</tr>
</tbody>
</table>

*Note. N = 475. Cell entries represent the unstandardized multiple regression coefficients with standard errors in parentheses obtained in the model with the interaction effect. The difference in the explained variance refers to the difference with the model without the interaction effect. *\( p < .05 \). **\( p < .01 \). ***\( p < .001 \).*
Hypothesis 2a posited that the positive association between exposure to sexual risk in teen magazines and fear of sex would occur among US young people and not among Dutch young people. Hypothesis 2b stated that the negative association between exposure to sexual pleasure in teen magazines and fear of sex would occur among Dutch young people and not among US young people. Contrary to our expectations, there was neither a significant interaction between exposure to messages about sexual risk and country (see Table 4.2, ‘Risk’ columns; $B = .007, SE = .004, ns$) nor between exposure to sexual pleasure and country (see Table 4.2, ‘Pleasure’ columns, $B = .015, SE = .016, ns$). Thus, the link between exposure to messages about sexual risk and fear of sex was equally absent among respondents from the US as among respondents from the Netherlands. The same was true for the association between exposure to sexual pleasure and fear of sex. Hypotheses 2a and 2b were not supported.

Hypothesis 3a posed that the positive relationship between exposure to sexual risk and fear of sex that could be expected for religious young people rather than for non-religious young people would occur in the US and not in the Netherlands. As can be seen in Table 4.3 in the columns labeled ‘Risk,’ a significant three-way interaction between exposure, religiosity, and country emerged ($B = -.006, SE = .003, p = .05$). This increased the explanatory power of the model significantly. Post-hoc probing for selected values of religiosity (i.e., at the mean, -1 SD, and +1 SD, as recommended by Aiken & West [1991]) revealed significant positive relationships between exposure to messages about sexual risk and fear of sex for US respondents whose religiosity was average ($B = .015, SE = .006, p < .05$) or below average ($B = .009, SE = .004, p < .05$). For US respondents whose religiosity was above average, no significant relationship between exposure to messages about sexual risk and fear of sex emerged ($B = .003, SE = .003, ns$). Post-hoc probing elicited no significant relationships between exposure and fear of sex among Dutch respondents with different levels of religiosity. In conclusion, the association between exposure to messages about sexual risk and fear of sex occurred, as expected, in the US and not in the Netherlands. In contrast to our expectations, however, US respondents with lower levels of religiosity showed a positive association between exposure to messages about sexual risk and fear, while this association did not emerge among highly religious US respondents. Hypothesis 3a was therefore not supported.

Hypothesis 3b predicted that the negative relationship between exposure to sexual pleasure and fear of sex that could be expected for non-religious young people rather than religious young people would occur in the Netherlands and not in the US. As Table 4.3 shows (‘Pleasure’ columns), the three-way interaction between exposure to messages about sexual pleasure, religiosity, and country was not significant ($B = -.016, SE = .013, ns$). Both in the US and in the Netherlands, there was no significant association between exposure to messages about sexual pleasure, and this association did not differ by respondents’ level of religiosity. Hypothesis 3b was not supported.
Table 4.2 Association between exposure to specific messages about sexual risk and sexual pleasure in teen magazines and fear of sex for readers

<table>
<thead>
<tr>
<th>Variable</th>
<th>Risk</th>
<th></th>
<th></th>
<th>Pleasure</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B (SE)</td>
<td>95% CI</td>
<td></td>
<td>B (SE)</td>
<td>95% CI</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>3.648 (.510)</td>
<td>[2.645, 4.650]</td>
<td></td>
<td>3.593 (.503)</td>
<td>[2.605, 4.581]</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-.046 (.017)**</td>
<td>[-.080, -.011]</td>
<td></td>
<td>-.044 (.017)*</td>
<td>[-.077, -.010]</td>
<td></td>
</tr>
<tr>
<td>Country (US = 1)</td>
<td>-.130 (.175)</td>
<td>[-.474, .214]</td>
<td></td>
<td>-.096 (.174)</td>
<td>[-.438, .246]</td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td>-.123 (.105)</td>
<td>[-.330, .084]</td>
<td></td>
<td>-.120 (.106)</td>
<td>[-.328, .087]</td>
<td></td>
</tr>
<tr>
<td>Sex education</td>
<td>-.070 (.094)</td>
<td>[-.256, .116]</td>
<td></td>
<td>-.069 (.095)</td>
<td>[-.255, .117]</td>
<td></td>
</tr>
<tr>
<td>Committed relationship present</td>
<td>-.389 (.085)***</td>
<td>[-.556, -.223]</td>
<td></td>
<td>-.395 (.085)***</td>
<td>[-.562, -.228]</td>
<td></td>
</tr>
<tr>
<td>Committed relationship past</td>
<td>-.095 (.056)</td>
<td>[-.206, .015]</td>
<td></td>
<td>-.093 (.056)</td>
<td>[-.204, .017]</td>
<td></td>
</tr>
<tr>
<td>Political orientation respondent</td>
<td>.011 (.025)</td>
<td>[-.038, .059]</td>
<td></td>
<td>.010 (.025)</td>
<td>[-.039, .058]</td>
<td></td>
</tr>
<tr>
<td>Political orientation parent</td>
<td>-.010 (.023)</td>
<td>[-.054, .034]</td>
<td></td>
<td>-.010 (.023)</td>
<td>[-.054, .034]</td>
<td></td>
</tr>
<tr>
<td>Reality TV</td>
<td>.026 (.040)</td>
<td>[.053, .105]</td>
<td></td>
<td>.025 (.040)</td>
<td>[.053, .104]</td>
<td></td>
</tr>
<tr>
<td>Internet porn</td>
<td>-.046 (.051)</td>
<td>[-.147, .056]</td>
<td></td>
<td>-.044 (.051)</td>
<td>[-.145, .057]</td>
<td></td>
</tr>
<tr>
<td>Religiosity</td>
<td>.161 (.038)***</td>
<td>[.087, .236]</td>
<td></td>
<td>.162 (.038)***</td>
<td>[.087, .236]</td>
<td></td>
</tr>
<tr>
<td>Sensation seeking</td>
<td>-.003 (.061)</td>
<td>[-.123, .118]</td>
<td></td>
<td>-.004 (.061)</td>
<td>[-.124, .117]</td>
<td></td>
</tr>
<tr>
<td>Sex talk peers</td>
<td>-.090 (.045)*</td>
<td>[-.179, -.001]</td>
<td></td>
<td>-.091 (.045)*</td>
<td>[-.180, -.003]</td>
<td></td>
</tr>
<tr>
<td>Sex talk parents</td>
<td>-.033 (.040)</td>
<td>[-.112, .046]</td>
<td></td>
<td>-.033 (.040)</td>
<td>[-.112, .046]</td>
<td></td>
</tr>
<tr>
<td>Sexual risk (pleasure) in magazines</td>
<td>-.004 (.002)</td>
<td>[-.008, .000]</td>
<td></td>
<td>-.004 (.002)</td>
<td>[-.009, .000]</td>
<td></td>
</tr>
<tr>
<td>Sexual risk (pleasure) in magazines X Country</td>
<td>.007 (.004)</td>
<td>[.000, .014]</td>
<td></td>
<td>.015 (.016)</td>
<td>[.016, .046]</td>
<td></td>
</tr>
<tr>
<td>ΔR²</td>
<td>.006</td>
<td></td>
<td></td>
<td>.002</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>.230</td>
<td></td>
<td></td>
<td>.230</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. N = 475. Cell entries represent the unstandardized multiple regression coefficients with standard errors in parentheses obtained in the model with the interaction effect. The difference in the explained variance refers to the difference with the model without the interaction effect.

* p < .05. ** p < .01. *** p < .001.
### Table 4.3: Association between exposure to specific messages about sexual risk and sexual pleasure in teen magazines and fear of sex for religious readers

<table>
<thead>
<tr>
<th>Variable</th>
<th>Risk</th>
<th>Pleasure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B (SE)</td>
<td>95% CI</td>
</tr>
<tr>
<td>Constant</td>
<td>3.738 (.549)</td>
<td>[2.660, 4.817]</td>
</tr>
<tr>
<td>Age</td>
<td>-.044 (.018)*</td>
<td>[-.078, -.010]</td>
</tr>
<tr>
<td>Country (US = 1)</td>
<td>-.736 (.381)</td>
<td>[-1.484, .012]</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>-.108 (.106)</td>
<td>[-.316, .100]</td>
</tr>
<tr>
<td>Sex education</td>
<td>-.074 (.094)</td>
<td>[-.259, .112]</td>
</tr>
<tr>
<td>Committed relationship present</td>
<td>-.382 (.085)**</td>
<td>[-.548, -.215]</td>
</tr>
<tr>
<td>Committed relationship past</td>
<td>-.109 (.057)</td>
<td>[-.220, .002]</td>
</tr>
<tr>
<td>Political orientation respondent</td>
<td>.010 (.025)</td>
<td>[.039, .059]</td>
</tr>
<tr>
<td>Political orientation parent</td>
<td>-.010 (.023)</td>
<td>[.055, .034]</td>
</tr>
<tr>
<td>Reality TV</td>
<td>.015 (.040)</td>
<td>[-.065, .094]</td>
</tr>
<tr>
<td>Internet porn</td>
<td>-.035 (.052)</td>
<td>[-.136, .067]</td>
</tr>
<tr>
<td>Religiosity</td>
<td>.077 (.121)</td>
<td>[-.136, .315]</td>
</tr>
<tr>
<td>Sensation seeking</td>
<td>.004 (.061)</td>
<td>[-.117, .124]</td>
</tr>
<tr>
<td>Sex talk peers</td>
<td>-.089 (.045)*</td>
<td>[-.178, -.001]</td>
</tr>
<tr>
<td>Sex talk parents</td>
<td>-.035 (.040)</td>
<td>[-.114, .045]</td>
</tr>
<tr>
<td>Sexual risk (pleasure) in magazines</td>
<td>-.006 (.004)*</td>
<td>[-.014, .001]</td>
</tr>
<tr>
<td>Sexual risk (pleasure) in magazines X Country</td>
<td>.025 (.010)</td>
<td>[.006, .044]</td>
</tr>
<tr>
<td>Sexual risk (pleasure) in magazines X Religion</td>
<td>.002 (.002)</td>
<td>[.002, .005]</td>
</tr>
<tr>
<td>Country X Religion</td>
<td>.223 (.147)</td>
<td>[-.067, .513]</td>
</tr>
<tr>
<td>Sexual risk (pleasure) in magazines X Country X Religion</td>
<td>-.006 (.003)*</td>
<td>[-.012, .000]</td>
</tr>
<tr>
<td>$\Delta R^2$</td>
<td>.006</td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td>.237</td>
<td></td>
</tr>
</tbody>
</table>

*Note. N = 475. Cell entries represent the unstandardized multiple regression coefficients with standard errors in parentheses obtained in the model with the interaction effect. The difference in the explained variance refers to the difference with the model without the interaction effect.*

* $p \leq .05$. ** $p < .01$. *** $p < .001$. 
Discussion

Given the role of teen magazines in the sexual socialization of young people, previous research on the issue has primarily focused on how the coverage affects teenagers’ sexual beliefs and attitudes (e.g., Kim & Ward, 2004; Walsh & Ward, 2010). More affective aspects of sexuality, such as any fears that young people may have about sex, have rarely been examined for reading teen magazines. In addition, the majority of research has taken place in the US, even though past research indicates that cultural differences exist in teen magazine content (Carpenter, 2001; Joshi et al., 2011, 2012, in press). Finally, researchers have recognized that more attention needs to be devoted to individual differences when investigating the link between media content and the sexual socialization of young people (e.g., Ward, 2003).

Using cultivation theory, this study tried to fill these three lacunae in existing literature by investigating the link between young people’s reading of teen magazines and fear of sex, and whether this varied by country. This study also examined if exposure to specific messages about sexual risk and pleasure were associated to fear of sex in the US and the Netherlands. Finally, this study delved into whether an individual’s religiosity strengthens or weakens the link between magazine reading and fear of sex, and whether this differed between readers in the US and the Netherlands.

Teen Magazine Reading and Fear of Sex

In line with our expectations, when the US respondents read teen magazines more frequently, they were more fearful of sex. This was not the case among the Dutch respondents. In contrast to our expectations, this pattern did not result from US young people being more responsive than Dutch young people to specific messages about sexual risk in the teen magazines. Likewise, we also did not find that Dutch youth were more responsive to specific messages about sexual pleasure. Overall, our result that general exposure to teen magazines was related to fear of sex while exposure to specific messages was not supports cultivation theory’s basic tenet that media may act as conveyors of widely shared messages (e.g., Morgan & Shanahan, 2010). In such cases, general exposure to a medium may be a better correlate of particular outcome variables than exposure to specific messages because it better captures the conceptualization of media as a society-level factor rather than as an individual-level factor (Morgan & Shanahan, 2010; Morgan et al., 2009). Adolescent sexuality is, by and large, approached differently in the US than in the Netherlands. Whereas, overall, more fundamental, restrictive, and at times negative views of adolescent sex seem to prevail in the US (Bay-Cheng, 2003; Elliott, 2010; Schalet, 2000), more pragmatic, permissive, and often positive views of adolescent sex seem to dominate in the Netherlands (Elliott, 2010; Schalet, 2000). As several content analyses have shown (Carpenter, 2001; Garner et al., 1998; Joshi et al., 2011), this pattern also occurs in the coverage of US and Dutch teen magazines. Teen magazines therefore act as conveyors of widely shared messages, with the result that reading these magazines is associated with greater fear of sex in the US than in the Netherlands.
Interestingly, reading teen magazines was not associated with less fear of sex in the Netherlands. A simple explanation may be that, overall, the coverage in the Dutch teen magazines is not as positive about sex as the US coverage is negative about sex. In other words, the US magazines approach sex more negatively than the Dutch magazines approach sex positively (Joshi, et al., 2011, in press). The approach to sex in US teen magazines is thus predominantly negative about adolescent sexuality and largely follows the lines of a danger discourse (Fine, 1988; Garner, et al., 1998; Johnson et al., 1999; Kim & Ward, 2004). Although the Dutch coverage is more positive than the US coverage, it does not depict adolescent sexuality in the context of a purely pleasure-oriented discourse that would ignore the risks of adolescent sex. Consequently, readers of Dutch teen magazines may receive a somewhat more balanced view of sex, which remains unrelated to fear of sex.

Regarding the positive association found between exposure to teen magazines and fear of sex for the US, our study confirmed a well-known pattern from cultivation theory. However, our findings may also extend cultivation theory in various ways. First, our study shows that cultivation theory does not necessarily have to be confined to television. Although cultivation scholars have repeatedly emphasized the central role of television in cultivation theory (e.g., Morgan & Shanahan, 2010), teen magazines in their function as popular story-telling systems seem to also be involved in cultivation processes. Given the popularity of teen magazines across the world, several interesting cultivation-related research questions are conceivable; for example, about the cultivation of gender stereotypes, notions of (romantic) relationships, and body image. Second, our study demonstrates the importance of cross-national research for cultivation theory. If our study had only been conducted with an US sample, the conclusion would have been that teen magazines are related to more fear of sex. Because we compared the US sample with the Dutch sample, we were able to show that this is not necessarily the case. Our findings can be related to the varying coverage of sex in the teen magazines of these two countries. Future research may also investigate to what extent cultivation effects may differ in countries in which the coverage is similar, focusing on macro-level factors that may moderate cultivation effects.

Religiosity as an Individual Difference

As expected, the association between exposure to specific messages about sexual risk and fear of sex occurred in the US and not in the Netherlands. However, contrary to our expectations, less religious US respondents were more fearful about sex when they were more frequently exposed to messages about sexual risk, while this association did not emerge among highly religious US respondents. One explanation for this finding could be that higher religiosity reduces the degree to which the coverage of sexual risk is relevant to individuals. For highly religious individuals, a message that sex is risky if not practiced in the appropriate context may just confirm the attitudes and beliefs they already hold about sex (Rostosky, Wilcox, Wright, & Randall, 2004). Moreover, young people who are highly religious may practice abstinence (Luher, 2006), thereby making content related to sex in general, and sexual risk in particular, irrelevant to their own lives. Conversely, lower levels of religiosity may increase the degree to which the coverage of sexual risk is relevant to
individuals. For less religious individuals, certainly for young people, messages about sexual risk may make them aware that sex can also be dangerous. In addition, these individuals are more likely to be sexually active (Hood, Spilka, Hunsberger, & Gorsuch, 1996). Thus, messages about sexual risk may be more applicable to their own lives and more able to foster a fear of sex.

At a theoretical level, our surprising finding with regard to the moderating role of religiosity in the US tentatively suggests a boundary condition for the disposition-content congruency hypothesis. This hypothesis states that media content may elicit stronger effects when media content is congruent with an individual’s disposition. Our findings point to the possibility that this hypothesis may only be applicable when the content has at least a minimum relevance to an individual and is applicable to an individual’s life. Given the highly selective media use of many young people (for a review, see Ward, 2003), most media content young people choose can be assumed to be relevant to them to some extent. Still, our finding may deserve some attention in future research to specify the disposition-content congruency hypothesis, as well as to further our understanding of moderating individual variables for the association between the coverage in teen magazines and fear of sex.

We did not find an association between exposure to messages about sexual pleasure and fear of sex in both the US and the Netherlands, and this association did not differ by the readers’ level of religiosity. One explanation for this finding may be the aforementioned characteristics of the coverage in Dutch teen magazines. Similarly, it could be that lower levels of religiosity may not necessarily indicate a more positive approach toward sex, which would lead to a stronger susceptibility to messages about sexual pleasure in teen magazines. Even if young people grow up in a sexually liberal, largely secularized environment such as the Netherlands, achieving a positive, pleasurable sex life may still be a considerable developmental step, regardless of an individual’s religiosity. Therefore, future research should consider other more developmental variables, such as sexual experience, in order to investigate what potentially moderates the relationship between messages about sexual pleasure and fear of sex.

Limitations and Conclusion

Our study provides several new insights into the relationship between reading teen magazines and fear of sex, but it has some limitations. First, our two samples consisted of female college students. Although their background was sufficiently diverse, generalizability of our study may be limited and needs to be taken into account when interpreting our results. Second, we were unable to receive approval from the public school system in the US to conduct research that was related to sex with minors, which prevented us from surveying adolescents. Consequently, the associations found between reading teen magazines and fear of sex may not be generalizable to adolescents. However, given that worries and uncertainties about sex may be more prevalent for adolescents than for young adults (Elliott, 2010; Tolman & McClelland, 2011), the findings can be expected to be more distinct among adolescents than young adults. Similarly, our measure of exposure to teen
magazines referred to a time several years before the survey, which may have reduced, rather than increased, the associations found.

A third and final shortcoming of our study refers to the causality of our findings. Cultivation theory is essentially about the influence of media messages on outcomes of interest, but the cross-sectional design of our survey permits us to only indicate relationships between exposure to teen magazines and fear of sex. That said, the content analysis that informed our exposure measures was conducted before the respondents were asked about their fear of sex. We also took into account many control variables that, at the time respondents were asked about their fear of sex, may have presented alternative explanations for fear of sex. Finally, we believe that it is theoretically more plausible to assume that the coverage in teen magazines may influence young people’s fear of sex, than that young people select teen magazines because they are fearful of sex. Although future research may choose to study our associations with causally more rigorous designs, we are confident that our results will hold.

In conclusion, despite the fact that young people today have an abundance of media to choose from, teen magazines continue to be a popular and vital source of information regarding sex. Our study is one of the first to link cross-national content analysis data of US and Dutch teen magazines to cross-national survey data of US and Dutch young people. In doing so, this study was able to show that reading teen magazines is associated with young people’s fear of sex, but that this is culturally contingent. A next step to these findings would be for researchers and health policy makers to consider outlets for managing the fear of sex being created for US youth. It seems that the normative approach to sex taken in Dutch teen magazines helps to foster in Dutch young people that sex is not something to fear. This normative framework encourages young people to learn about their bodies, sexual partners, and relationships without fear by managing sexual risks and developing positive ideas about sex, ultimately helping to lay the groundwork for healthy patterns regarding sex and sexual health.
References


Chapter 4


January 28, 2011

Suchi P. Joshi
6509 Hammersmith Drive
Raleigh, NC 27613

RE: **Project No. 816**

Dear Ms. Joshi:

Your request to conduct research entitled “Teenagers and magazines: A cross-national study of teens’ attitudes shaped by magazines in the US and Netherlands” in Wake County Schools has been reviewed. I regret to inform you, however, that the request was not approved.

We appreciate your interest in the Wake County Public School System. Perhaps there will be an opportunity for us to assist you in the future.

Sincerely,
Angie Wright, Ed.D.
Chair, Research Review Committee
Evaluation & Research Department (919) 850-1798
Notes

1 Investigating negative consequences of sex as a predictor variable did not lead to any results.
2 Investigating sexual wanting as a predictor variable did not lead to any results.
3 The analysis with general exposure and religiosity did not elicit significant findings.