Adolescent Judgment of Sexual Content on Television: Implications for Future Content Analysis Research

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Adolescent Judgment of Sexual Content on Television: Implications for Future Content Analysis Research

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Many studies of sexual messages in media utilize content analysis methods. At times, this research assumes that researchers and trained coders using content analysis methods and the intended audience view and interpret media content similarly. This article compares adolescents' perceptions of the presence or absence of sexual content on television to those of researchers using three different coding schemes. Results from this formative research study suggest that participants and researchers are most likely to agree with content categories assessing manifest content, and that differences exist among adolescents who view sexual messages on television. Researchers using content analysis methods to examine sexual content in media and media effects on sexual behavior should consider identifying how audience characteristics may affect interpretation of content and account for audience perspectives in content analysis study protocols when appropriate for study goals.

There is a growing body of research examining the link between depictions of sexual content and themes in mass media and teens' attitudes toward sex and their sexual behavior (Bleakley, Hennessy, Fishbein, & Jordan, 2008; Brown & Newcomer, 1991; Collins et al., 2004;

Kunkel, Eyal, Donnerstein, Farrar, Bielly, & Rideout, 2007; Pardun, L'Engle, & Brown, 2005; Strouse & Buerkel-Rothfuss, 1987). Given the prevalence of sex and sex-themed messages in the media, and the many hours adolescents spend using media on a daily basis, the role of media as a sexual socializer is particularly important (Kunkel et al., 2007; Ward, 2003). Research investigating the relationship between exposure to sex content in the media and sexual beliefs, attitudes, intentions, or behaviors often relies on the technique of content analysis to describe the media content of interest. However, little is known about whether such studies adequately capture sexual messages as observed by the audience of interest.

Researchers have used both qualitative (i.e., Medley-Rath, 2007) and quantitative (i.e., Kunkel et al., 2007) research methods to analyze sexual content. While qualitative content analysis relies on methods such as discourse and ethnographic analysis

(Krippendorff, 2004), quantitative content analysis is more concerned with condensing content into pre-defined categories for the purpose of counting or identifying specific messages (Altheide, 1996; Riffe, Lacy, & Fico, 1998). When analyzing sexual messages in the mass media using quantitative content analysis methods, researchers must determine what constitutes sex and define it for the research coders. For example, in their coding scheme, Kunkel, Eyal, Finnerty, Biely, & Donnerstein (2005) defined "talk about sex" as conversations involving "discussion of sexual interests and topics with potential partners" and "talk about one's anticipated, or desired future sexual activities" (Kunkel et al., 2005, p. 14). Lampman et al.'s (2002) coding scheme included leering or staring as sexual behavior, as well as the use of sexual names while name-calling. A topic as broad as sexual content may ultimately be defined and coded in multiple ways, and the content categories that researchers develop dictate what information is gleaned from the media and tied to outcomes of interest. Many times, decisions about categories are informed by which theories are applied to the study (Manganello & Fishbein, 2008).

How variables are operationalized form the basis of any quantitative content analysis codebook or protocol, and researchers often try to strike a difficult balance between developing categories to capture the content of interest while ensuring categories can be coded in a reliable manner (Neuendorf, 2002; Riffe et al., 1998). Moreover, researchers often try to develop content categories that are generalizable and reflect judgments that the population of interest would also make. Riffe et al. used the term "social validity" to refer to the social importance and meaning of the content being explored outside of its relevance to the research community.

While operational definitions of sexual media content are important research decisions, so too are the actual coding judgments made by researchers and coders as they employ these operational definitions to analyze media content. A methodological premise of quantitative content analysis is the assumption that the people doing the coding (typically, undergraduate or graduate students or the researchers themselves) are reliable in their coding judgments; it is expected that they view and code content as close to the predefined content categories as possible. Researchers must train coders to objectively review the media content of interest in a consistent manner. It is also assumed that coders using a codebook to analyze media messages will assess the content in a manner similar to any other person given the same media content and training on using the coding scheme. However, it is often the case that people interpret messages in different ways.

Evidence of individual and group differences in the meaning derived from the same media content is an idea informed by Reception Theory, which considers that audiences vary in their interpretation of messages (Livingstone, 1990; Morley & Brunsdon, 1999). As Livingstone (1989) argued, "Any analysis of content—conceived as a reliable coding of objective meaning—must be followed by an analysis of audience reception to investigate any divergence" (p. 187). Sense-making methodology also incorporates audience perspectives, calling for the inclusion of audience experiences and interpretations of messages when conducting communication research (Dervin & Frenette, 2000). Krippendorff (2004) suggested that "texts do not have single meanings," and he argued with the assumption that "a message has but one content" (p. 22).

In an early study of message interpretation investigating how women read romance novels, Radway (1984) found that meaning of text is constructed through both the reader and the text itself. After talking with the women, Radway learned that the women interpreted the stories differently based on how they read the text, including particular words or descriptions, and their views about romance shaped how they interpreted the stories.

Differences in interpretation of sexual content are presumably driven by selective perception, individual experiences and biases, and level of involvement in the content. Ward, Gorvine, and Cytron (2001) described three sets of factors that may influence perceptions of sexual content: (a) sociodemographic factors (such as age, sex, and ethnicity), (b) viewing behavior (such as time and attention), and (c) previously held attitudes (such as beliefs about sexual behavior). To assess the predictive value of these factors, Ward et al.'s research team showed college students four television clips and administered a survey to capture data concerning interpretation of sexual messages as well as data about the three groups of factors described earlier. They found significant differences by sex for identification of the main message of a television scene. For example, females considered the scenes to be more realistic than males. In addition, participants who watched more television were more likely to report that behaviors observed in the scenes were likely to happen in real life. In some cases, attitudes about sex and prior sexual experience also appeared to predict interpretation. In another study, Brown and Schulze (1990) found sex and racial differences in interpretations among undergraduates for the meaning of a Madonna song, "Papa Don't Preach." While White females believed the song was about an adolescent deciding to keep her unborn baby, African American males believed the song was about the same girl wanting to keep her boyfriend.

In other research, Livingstone (1990) found that a sample of mostly adult soap opera viewers reported different meanings for an identical storyline depending on which character they liked, identified with, or felt sympathy for. Meischke (1995) found differences in female undergraduate interpretations of movie clips featuring "implicit sex scenes." While 72% said sexual

intercourse had taken place, 26% said "probably," and 2% said "probably not." Much more variation appeared for responses when asked about whether the characters had engaged in safe sex. A study of 108 adolescents found differences in ratings of humor of sexual innuendo appearing in television clips based on explicitness of the message and age of participant, which ranged from 12 to 16 years old (Silverman-Watkins & Sprafkin, 1983). Results suggested it may be harder to achieve agreement for less obvious messages and that age matters in understanding of sexual innuendo. For example, the youngest age group had trouble explaining innuendo concerning sexual intercourse. Finally, one study compared adult viewers to trained adult coders' perceptions of sexual content on television. In that study, Sprafkin, Silverman, and Rubenstein (1980) found that correlations between viewers and coders were high for more manifest sexual content such as prostitution but low for behaviors that were open to interpretation, such as affectionate touching.

While these past studies have established that differences exist among the perceptions of audiences about sexual media content, there has been little research comparing audience responses with the perceptions of researchers themselves, and no studies have compared adolescent responses with those of coders or researchers. Researchers conducting a content analysis study spend a great deal of time developing content categories, training coders, and ensuring that reliability standards are met, and they often code materials themselves. Although coding categories used in this study were not necessarily designed to be salient to a youth audience, we were interested in knowing whether these categories could be observed by youth and if they would interpret messages differently from researchers. Thus, our first research question asked, "Do adolescents view sexual media content on television the same way as researchers?"

Most content analyses implicitly assume or explicitly test whether the content has some non-trivial effect on the intended audience, and typically, such assumptions are guided by a particular theory. However, no prior studies examined audience interpretation using different coding schemes informed by multiple theoretical frameworks. Given this, it would be useful to understand how differences in audience perceptions vary based on theoretically driven coding schemes. We were interested in knowing how well adolescents could comprehend content categories informed by the Integrative Model (IM), a theory that incorporates multiple constructs such as self-efficacy and attitudes from health behavior theories (Fishbein & Yzer, 2003), prior to conducting a large scale content analysis. We wanted to compare agreement for our IM coding categories with two previously used sets of categories, informed by other theories and having adequate reliability, to determine whether we developed a reasonable coding scheme. It is important to note our study was not designed to

assess the quality of coding schemes. Instead, we asked our second research question to help us better understand which categories were more or less likely to be obvious to our target audience: "Are differences between researchers and adolescents increased or attenuated depending on the type of content categories used?" We were especially interested in this question as we were planning to ask participants to rate sexual content in media they reported using for a future study.

While prior studies suggest that audience differences in message interpretation exist with respect to sexual content, only one study was conducted with adolescents. Also, none were conducted in more recent years, and with the rapidly changing media landscape, it is possible that exposure to a wider variety of media messages might have implications for how adolescents view messages. Adolescents are diverse, coming from a wide range of backgrounds and having varied experiences, which may contribute to differences in observing and processing sexual content. Thus, our final research question was, "Are there age, race, and sex differences among adolescents in their perception of sexual messages on television?"

To answer these research questions, we selected four television scenes that had been content analyzed by research staff from various studies. The four scenes were shown to a sample of adolescent participants, and following each scene, the participants answered questions concerning the presence or absence of content for that scene. The specific procedures for this formative research study are discussed below.

Method

Television Scenes

Four clips of less than five minutes each from television programs were selected for this study and were used because they were sent to us by researchers who had previously conducted content analysis studies. All clips contained sexual behavior or talk about sex. Some clips contained one scene, while others contained more than one scene; we refer to the clips as scenes for the remainder of the article. The scenes came from episodes of *Roseanne* (air dates 1988–1997; Gandolfi & Weyman, 1993; Internet Movie Database, 2009d), *The Fresh Prince of Bel-Air* (air dates 1990–1996; Gard & Melman, 1991; Internet Movie Database, 2009b), *Everwood* (air dates 2002–2006; Pogue & Moore, 2003; Internet Movie Database, 2009a), and *7th Heaven* (air dates 1996–2007; Hampton & Feigenbaum, 2001; Internet Movie Database, 2009c). Although episodes had aired several years ago, these episodes had each been coded previously in studies of sexual content, and all came from shows popular with adolescent audiences.

The scene from *Roseanne* featured teenage characters, David and Darlene, on their prom night. Although they

had planned to have sex, David is unable to go through with it due to performance difficulties, and they decide to wait until they are both ready. This scene was coded using quantitative content analysis procedures using categories for sexual content developed by Kunkel and colleagues (Kunkel, Biely, Eyal, Cope-Farrar, Donnerstein, & Fandrich, 2003; Kunkel et al., 2005; Kunkel et al., 2007).[1] These categories analyzed depictions of sexual or suggestive behavior, or talk about sexuality or sexual activity. Sexual or suggestive behavior included physical flirting, passionate kissing, intimate touching, implied sexual intercourse, and sexual intercourse depicted. Sexual talk included comments about own and others' sexual actions and interests, talk about sexual intercourse that has already occurred, talk toward sex, talk about sex-related crimes, and expert advice about sex. In addition, the Kunkel methodology noted the degree to which a scene focused on sex to differentiate minor references from scenes in which there was a substantial emphasis on sex. Further, all scenes that included sexual behaviors were coded for degree of explicitness, which indicates the physical appearance of the characters involved in the behavior (e.g., provocative dress, nudity). Researchers also noted whether scenes include any mention or depiction of sexual risks or responsibilities. A list of the Kunkel coding categories used in this study can be seen in Table 1.

The second scene, from *The Fresh Prince of Bel-Air*, depicts the main character, Will, out to dinner with a new girlfriend. The girlfriend describes her interest in getting married and expresses her expectation of a commitment before engaging in sexual activity. *The Fresh Prince* was coded using categories focused on sexual scripts that were informed by a prior study (Ward, 1995). The Ward (1995) study examined thematic content of sexual messages to understand the context and functioning of discussions and portrayals of sexuality and relationships, and then counted them to assess the frequency with which they appeared. These categories have been built upon in more recent work (Kim et al., 2007). The Ward (1995) study was designed to examine broad societal themes and messages as opposed to specific behaviors, and did not intend to capture messages that would be easily observed by a viewer from the target audience used in our study. Categories were designed to capture such themes as "men value and select women based on their physical appearance" or "sexual/romantic relations are a competition." When developing the questions for participants, most of the coding categories had to be revised to allow for

[1]Throughout the remainder of the article, we will refer to the coding schemes as Kunkel, Ward, and IM. However, it is important to note that each coding scheme was modified from its original version for ease of administration in a survey for adolescents. The coding schemes are not referenced given that they are revised from their original sources, and Kunkel, Ward, and IM are instead used as descriptors to identify a particular set of coding categories.

Table 1. *Comparison of Researcher and Participant Responses for the Kunkel Coding Scheme*

Variables	Roseanne	7th Heaven
Talk about sex	✓	*
Talk about sexual interests	✓	—
Talk about past sex	✓	✓
Talk about waiting for sex due to barriers		—
Talk about waiting for sex until marriage	✓	✓
Talk about sex crimes	✓	✓
Expert advice about sex	✓	
Mention of condoms/birth control	✓	✓
Mention of safe sex	✓	
Concern about unwanted pregnancy	✓	✓
Concern about AIDS/STDs	✓	✓
Flirting		*
Passionate kissing	✓	
Intimate touching		
Sexual intercourse implied	✓	✓
Sexual intercourse shown	✓	✓
Sexy dress or appearance		
Partial nudity	✓	✓
Nudity	✓	✓

Note. ✓ = at least 70% of teens checked this category and researchers checked it as well OR less than 30% of teens checked this category and neither did researchers (indicates adolescent/coder agreement).
* = at least 70% of teens checked this category but researchers did not.
— = less than 70% of teens checked this category but researchers did check it.
Blank cells indicate that 31% to 69% of teens checked this category, but researchers did not (indicates adolescent disagreement for categories not checked by researchers).
Category descriptions listed in the table have been condensed from those used in the survey.

shorter descriptions and simpler language for use with a survey of adolescents. For example, "Women are the limit setters and are in charge of sexual control and responsibility" became "Females are the responsible ones and are the ones who set limits." A list of the resulting coding categories can be seen in Table 2.

The third scene came from the show *Everwood*. It involves a father upset with his 16-year-old son because the son was having a romantic relationship with the family's 20-year-old babysitter. The scene from *Everwood* was coded using quantitative content analysis procedures with categories based on the IM (Fishbein, 2000; Fishbein & Yzer, 2003). We developed this method to explore the contexts and consequences of sexual activity. Specifically, questions asked about factors that made it easy or difficult for the characters in the scene to engage in sexual behavior (efficacy or control beliefs), as well as about good or bad things that could result from engaging in sexual behavior (outcome expectancies) and normative beliefs (whether other people knew about the behavior and if they approved or not). For what made it easy or difficult to take part in a sexual activity, participants were asked to mark which factors were present in the scene. Categories for things that made it easy included, "they had condoms

Table 2. *Comparison of Researcher and Participant Responses for the Ward Coding Scheme*

Variables	Fresh Prince	7th Heaven
Sex/romance as a game	—	✓
Sex is fun to do and talk about	✓	—
Sex used as a prize/obtain goals	✓	
Females often have dating strategies	—	✓
Females are the responsible ones /set limits	*	✓
Females good/bad based on sexual activity	—	
Females look for qualities in males	—	✓
Females know looking good attracts males		
Males use strategies to attract females	—	
Males more masculine if they have sex	—	—
Males start romance or sex		✓
Males choose females based on looks		✓
Being open and intimate is important		—
Involvement with someone is serious	—	—
There are myths about sex and love	—	✓
Sex as natural part of a relationship		—
Sexual activity is based on religious beliefs and traditional norms	✓	—
Casual sex can be a health risk	✓	—

Note. ✓ = at least 70% of teens checked this category and researchers checked it as well OR less than 30% of teens checked this category and neither did researchers (indicates adolescent/coder agreement).
* = at least 70% of teens checked this category but researchers did not.
— = less than 70% of teens checked this category but researchers did check it.
Blank cells indicate that 31% to 69% of teens checked this category, but researchers did not (indicates adolescent disagreement for categories not checked by researchers).
Category descriptions listed in the table have been condensed from those used in the survey.

Table 3. *Comparison of Researcher and Participant Responses for Selected Categories for the IM Coding Scheme*

	Everwood	7th Heaven
Control Beliefs		
Things that make it easy to have sex		
Friends and/or family approved	✓	✓
Condoms available	✓	
Using alcohol and/or drugs	✓	✓
Were alone/thought they were alone	—	—
One or both partners really wanted sex	✓	—
Other things made it easy	—	✓
Things that make it hard to have sex		
No birth control or condoms available	✓	✓
One or both of them not ready	✓	—
Personal beliefs or attitudes about sex	✓	—
It would make someone mad		—
They were interrupted	—	✓
Other things made it hard	✓	✓
Behavioral Beliefs[a]		
Good things happened		
Had pleasure	✓/✓	✓/✓
Became closer to partner	✓/✓	✓/✓
Got approval or respect from someone	✓/✓	/✓
Became more self-confident	✓/✓	/✓
Gained sexual experience	✓/✓	✓/✓
Other good things happened	✓/✓	✓/✓
Bad things happened		
Made relationship worse	–/–	✓/✓
Broke-up with partner	✓/✓	✓/✓
Someone lost respect for character	/	✓/✓
Bad things were said about character	✓/✓	✓/✓
Made someone mad or hurt their feelings	–/–	–/✓
Other bad things happened	✓/–	✓/✓
Normative Beliefs		
Person 1 listed	—	—
When listed, person 1 approved or not	✓	✓
Person 2 listed	✓	—
When listed, person 2 approved or not	NA	✓
Person 3 listed	✓	—
When listed, person 3 approved or not	NA	—

Note. ✓ = at least 70% of teens checked this category and researchers checked it as well OR less than 30% of teens checked this category and neither did researchers (indicates adolescent/coder agreement).
* = at least 70% of teens checked this category but researchers did not.
— = less than 70% of teens checked this category but researchers did check it.
Blank cells indicate that 31% to 69% of teens checked this category, but researchers did not (indicates adolescent disagreement for categories not checked by researchers).
NA = No other people were listed by researchers or respondents so this response was not applicable but was considered agreement.
[a]Two marks are indicated. The first is for the male character and the second is for the female character, since outcomes were evaluated separately for each character involved in the scene.
Category descriptions listed in the table have been condensed from those used in the survey.

available," and "they were alone," whereas examples of categories concerning what would make it hard were, "it would make someone mad," and "they were interrupted." Good outcomes consisted of things like "became closer to partner" and "had pleasure," whereas categories like "made relationship worse" and "got in trouble with someone" were listed for bad outcomes. Outcomes were evaluated separately for each character involved with the behavior. Normative beliefs were assessed by asking if anyone else knew about the possibility that sexual activity could have occurred. For each person listed, the participant was asked to provide a name, and assess if that person would have thought the sexual activity was "ok." A partial list of the IM categories used in this study can be seen in Table 3. A complete list is available from the first author.

The fourth and final scene came from *7th Heaven,* which depicts a teenage boy going over to his girlfriend's house. She tries to persuade him to engage in sexual activity, but he declines and states he wants to watch a movie with friends as they originally planned. His father believes that the boy is intending to have sex, so he goes to the girlfriend's house to intervene. Father and son then discuss their feelings about premarital sex. Questions from all three sets of coding schemes (Kunkel, Ward, and IM) were applied to this scene, which was the longest scene and provided enough relevant content to allow categories from all three coding schemes to be used.

Respondent Sample and Study Procedures

Adolescent participants were recruited through community-based youth organizations from areas of varying socioeconomic status in a Northeastern metropolitan area to view and evaluate the sexual content of the four scenes described earlier. Eighty-nine adolescent participants (41 males and 48 females) between the ages of 14 and 19 completed computer-based surveys using MediaLab (Empirisoft Corporation, New York, NY). Table 4 shows demographic characteristics of the sample and the sample's familiarity with the programs used in the study.

Participants at each location were seated together in a large room. Laptops were set up and each respondent was assigned to his or her own computer and given a set of headphones. Both the survey questions and television scenes were embedded within the software program, and participants were asked to click on a button to move from screen to screen. As part of the survey, each respondent viewed the scenes from all four of the programs mentioned earlier. After viewing a scene,

Table 4. *Participant Demographics*

Variable	*N*	*%*
Age		
14	33	37
15	22	25
16	18	20
17	6	7
18	9	10
19	1	1
Sex		
Girls	48	54
Boys	41	46
Race		
African American	43	48
White	24	27
Hispanic	17	19
Other	5	6
Program exposure		
Roseanne		
Never–not sure[a]	18	20
Once–few times	50	56
A lot	21	24
The Fresh Prince of Bel-Air		
Never–not sure[a]	5	5
Once–few times	22	25
A lot	62	70
Everwood		
Never–not sure[a]	59	66
Once–few times	20	27
A lot	6	7
7th Heaven		
Never–not sure[a]	15	17
Once–few times	48	54
A lot	26	29

Note. *N* = 89.
[a]Because three or fewer participants marked "not sure" for each program, we combined "not sure" with "never."

the respondent answered questions about the presence or absence of specific types of sexual content by checking the categories they believed appeared in the scene. The first three scenes (*Roseanne, The Fresh Prince*, and *Everwood*) were shown in random order. Participants coded the *Roseanne* scene using only the Kunkel coding scheme, *The Fresh Prince* scene using only the Ward coding scheme, and the *Everwood* scene using only the IM coding scheme. Participants always viewed the scene from *7th Heaven* last, since all three sets of coding categories were asked for this scene. At the conclusion of the study, participants answered general demographic questions about their sex, ethnicity/race, and age. We combined Hispanic and "other" to create three race categories for our analysis (African American, White, other). We did not collect information on socioeconomic status.

We compared the participants' ratings to the content analysis performed by research staff from each study. The identity of the coders for the Kunkel scheme is unknown. Ward herself provided the coding responses for her scheme. Coders for the IM scheme were an adult group consisting of two White females, one African American female, and one White male (three of whom are co-authors of this article).

To assess agreement between researchers and participants, we considered the two groups to be in agreement if 70% or more of participants marked the same answer as the researchers or if 70% of more were in agreement that a response should *not* be checked.[2] We determined opportunities for agreement by counting the number of coding categories presented to coders and participants for both scenes that used a particular coding scheme. We then calculated a percentage to reflect how many categories had agreement between adolescents and researchers for each coding scheme out of the total number of opportunities for agreement.

This study was approved by the University of Pennsylvania institutional review board. Parental consent and participant assent were obtained for participants under 18; participant consent only was obtained for those ages 18 and 19. Participants were provided with pizza during the study and given a certificate worth $10 to a movie theater.

Results

In addressing Research Questions 1 and 2, we noted several differences in the level of agreement between adolescent participants and researchers when contrasting the Kunkel, Ward, and IM coding schemes.

[2]A variety of ranges are recommended for use as cutoff points for assessing which variables have achieved successful intercoder reliability in content analysis studies. We used .70 given the exploratory nature of this research and the recommendation of this value by Riffe, Lacy, and Fico (1998).

Using the Kunkel scheme (Table 1), there were 38 opportunities for agreement across the two scenes (*Roseanne* and *7th Heaven*); participants and researchers agreed 66% of the time (25 out of 38 opportunities for agreement across the two scenes). There was a great deal of agreement between the adolescent and researcher results for *Roseanne*; however, more differences emerged in *7th Heaven*, possibly because the scene was a bit more complex with respect to the number of characters and the discussions that occurred. In this scene, adolescent viewers identified the presence of some variables not seen by researchers (e.g., talk about sex and flirting) while researchers identified categories not seen by participants (e.g., talk about waiting for sex due to barriers).

There was less agreement between participants and researchers when using the categories informed by the Ward coding scheme. Out of 36 opportunities for agreement across the two scenes regarding the presence or absence of a coding category, participants and researchers agreed in 11 cases (31%); more agreement occurred for the *7th Heaven* scene than the scene from *The Fresh Prince*. Analyses showed that participants and researchers were more likely to agree on the absence of a variable, rather than on the presence of a variable. In *7th Heaven,* out of 8 categories checked by researchers, adolescent participants only agreed with one sexual script: "Females often have dating strategies." As with the analysis based on the Kunkel coding categories, there were some categories informed by Ward's approach where a majority of the participants saw something in the content that the researchers did not see. For example, participants agreed with each other (71%) that the message, "Females are the responsible ones and are the ones who set limits," appeared in *The Fresh Prince* scene.

Agreement was highest for the coding scheme based on the IM (Table 3). Out of 118 total opportunities for agreement across both scenes (84 of which are represented in Table 3), participants and researchers agreed 87 times (74%). Participants and researchers varied in agreement as to the presence or absence of factors that made it easier or more difficult for the characters to have sex. In several cases, researchers identified categories that participants did not see (e.g., that the characters were alone). There was some disagreement for behavioral beliefs (mainly, researchers marked more negative outcomes than did participants). For the section on normative behaviors, the skip patterns precluded assessing adolescent–coder agreement in the same manner as the other questions. For the most part, however, responses for the normative beliefs section lacked agreement with researchers regarding the number of referent others and who was identified as a referent other (for this study, defined as people who commented on sexual activity). However, it was typical that when a respondent did nominate someone who was also identified by researchers as a referent

other, there was agreement about their level of approval of the sexual activity.

We also assessed agreement among the adolescent participants in response to Research Question 3. Questions with low agreement were often more subjective or latent categories. For instance, questions with around 50% of teens marking a response included items like, "sexy dress or appearance," and "Being open and intimate is important for a good relationship."

There were several differences that reached statistical significance based on sex, and in general, females were more likely to report the presence of some sexual content categories than males. Females were more likely to check that sex was easy because "they were alone" in *Everwood* and *7th Heaven*, and that sex was easy because "one or both partners really wanted to engage in sexual activity" in *7th Heaven*. Females were also more likely to believe that "talk about sex," "talk about sex by an expert giving advice," and "mention of condom use or other birth control" appeared in *7th Heaven*. Females also noted female role scripts more often than males in *7th Heaven,* including, "Females often have dating strategies," "Females look for certain qualities in males," and were more likely than males to state that no messages about male roles or sexual relationships appeared. Males were more likely to check "Males are more masculine if they have sex with females" in *The Fresh Prince* and talk about sex that had already occurred in *7th Heaven*.

In several cases, White participants were more likely to check sexual content categories than African American participants. White participants were more likely to check female role scripts in *The Fresh Prince,* including females set limits, and "Females know looking good helps to attract partners." Whites were also more likely to mark scripts in *7th Heaven*, such as "Females often have dating strategies," and "Males are more masculine if they have sex with females," whereas African American participants were more likely to say that no male roles appeared and that no messages about sexual relationships appeared. White participants were more likely to check that sex was easy because they thought they were alone in *Everwood,* and that sex was easy because one partner really wanted to engage in sexual activity in *7th Heaven*, but hard because it would make someone mad. For *7th Heaven*, White participants were more likely to check "sexy dress or appearance," "mention of condom use or other or birth control," and "Sex is just something fun to do and talk about."

The only significant differences by age group were that older teens were more likely to see intimate touching in the *Roseanne* scene, and younger participants were more likely to mark that mention of safe sex appeared in *7th Heaven*. Prior viewing had an impact mainly for the *Everwood* scene, where people who had seen the show before were more likely to be familiar with the context of the relationship between the two

characters. There was no difference by prior viewing for the other programs.

Discussion

Depending on research goals, prior research has documented the usefulness of incorporating the interpretation of messages by study participants when conducting research. For instance, Potter and Tomasello (2003) found that including interpretation variables in experimental research can enhance one's ability to study differences across participants. For Research Questions 1 and 2, we asked whether adolescents and researchers would view content similarly and whether it would differ by coding scheme. The data suggest that agreement varies by content type. As noted in the results, there was more agreement between participants and researchers for the *7th Heaven* scene compared to *The Fresh Prince* scene for the categories informed by the Ward coding scheme, but less agreement for the *7th Heaven* scene compared to the *Roseanne* scene for the Kunkel categories. Agreement was similar for both scenes for IM coding. While the IM appeared to have higher agreement than the other two coding schemes, this may have been due to the larger number of items that offered greater opportunities for agreement, especially since many of them were clearly not applicable to the scene. In practice, the IM coding scheme is very complex, and given the emphasis the categories had on actual sexual behavior, it would have been difficult to apply the categories to content such as flirting or sexual talk. Thus, in the large content analysis study we later conducted, we only used the IM categories when sexual intercourse was implied or depicted.

Differences in characters and topics, complexity of issues presented, and definitions for coding categories that the average viewer may not be familiar with all potentially contributed to these findings. For example, participants marked "flirting" in the *7th Heaven* scene, whereas researchers did not. Also, it may be more difficult to achieve reliability when examining content that is latent, a concept supported by others (Ahuvia, 2001), and there is debate concerning whether content analysis methods can be used for latent as well as manifest messages (Potter, 2008). This does not mean that researchers should only code manifest content, or that coding schemes assessing latent content are not valid. However, our findings suggest that researchers who are attempting to capture messages as a target audience would see them should be careful to understand how the coding categories may be interpreted in different ways based on how obvious or hidden they are, especially given audience differences in age, sex, race or other characteristics. Ahuvia provided a description of "interpretive content analysis." This approach is specifically designed to assess latent content, where multiple people work collaboratively to assess the context of the messages instead of coding on their own according to predetermined coding rules.

Another distinction between adolescent viewers and researcher interpretation of messages concerns the literal interpretation of content and attention to messages. Coder training is an integral part of any content analysis study (Krippendorff, 2004; Neuendorf, 2002), and the training process itself influences how coders view the content. For example, content analysis requires that coders pay specific attention to details. When asked to look for kissing, they will specifically focus on looking for kissing and note any kissing occurrences. However, if only one brief kiss appears in an episode, the average viewer may not notice it, may have been in another room at the time, or may not recall they saw it if asked. Can we then expect that one small kiss to have an effect on the viewer? An example of this occurred when 66% of adolescent participants said that it would be easy to have sex because "they had condoms available" in *7th Heaven*. Researchers did not select this category because the condom was in a wallet, which was left at home and thus was not with the person who was intending to have sex. This example highlights the literal nature of a researcher or coder interpretation of content that may not be relevant for or noted by an average viewer.

Other studies have found differences with assessment or interpretation of media messages by race or ethnicity (e.g., Borzekowski, 1996), sex (Dambrot, Reep, & Bell, 1988; McLean, 1997), and age (Gray, Amos, & Currie, 1996; Silverman-Watkins & Sprafkin, 1983). Although not the focus of our research, in addressing the third research question, our findings suggest that audience differences in interpretation do exist. Content analysis studies looking at sexual messages should consider ways that characteristics of the target audience may affect interpretation of content and account for that in their methodological protocols when relevant to study goals. Race, sex, and age differences may alter interpretation of content, suggesting that researchers should consider making coding teams representative of the population being studied, a suggestion offered by Krippendorff (2004). Depending on the goals of a particular study, researchers may want to use coders who are similar to the intended target audience of the media material in terms of measurable background characteristics (e.g., age, race, sex, and socioeconomic status). This may help ensure a better match between the findings from a content analysis and the interpretations of the content by the average viewer from the target population. Ahuvia (2001) provided an argument for the use of reception based content analysis, which calls for the population under study to be included in the development of coding categories and content analysis.

One limitation of the study is that different coding schemes were applied to different television scenes,

which may weaken the comparisons across the coding schemes given that different coding schemes may be more easily understood for different content. However, the application of all three coding schemes to one scene (*7th Heaven*) allowed for a more systematic comparison of the coding categories. Also, original wording of coding and structure of categories had to be adjusted to allow for clarity and ease of administration for a computer survey. It is important to note that the extent of changes made varied across coding schemes (i.e., changes were more significant for the Ward coding scheme), which may have made categories less reliable, leading to an increase in disagreements between participants and researchers. Another limitation concerns the fact that participants may have varied in their understanding of the questions due to variations in literacy levels and other factors. Not asking participants to explain why they chose particular responses limited our ability to examine in detail trends in reception differences for different groups (i.e., African Americans vs. Whites). In addition, we did not measure sexual attitudes or behavior of participants, which may have impacted how they viewed content. It is also possible that agreement with coders may have been improved if participants were provided with the same descriptions of coding categories as were given to members of the research teams, especially for categories related to themes or other more latent content such as those informed by the Ward (1995) study. Finally, while prior viewing of shows may have altered responses to questions, we only found evidence of this for one program.

The main goal of quantitative content analysis is to better understand messages provided to media users, in this case, sexual messages, with the thought that these messages can have some sort of effect. Content analysts, however, are trained to look at media content in ways that may be distinct from a target audience, in this case, adolescent viewers. Not everyone agrees on whose view of content is most important when conducting a content analysis study and whether audience interpretations should be accounted for and in which circumstances (Ahuvia, 2001). We are not suggesting that content analysts must strive to find one meaning or interpretation of a message or that such a task would even be possible. Instead, we are suggesting that if a researcher is concerned about how a target audience views the content of interest, we recommend conducting formative research to improve the development of content categories and the operationalization of variables to be sure sexual content is measured in a way that is consistent with interpretation of a target audience. Using qualitative research methods to gain a better understanding of how a target audience perceives messages and to develop coding categories, and pilot testing a codebook with the target audience, may be useful steps when conducting a content analysis study. Comparing how a target

audience views content with coders who are different and coders who match certain traits (i.e., race, age, gender) may help establish whether it is important to use coders who are similar to a target audience. Asking participants to provide ratings of content on surveys designed to be linked with content analysis data is another possibility (Bleakley et al., 2008).

While we can never achieve one true view of a message or set of messages (Krippendorff, 2004), we can strive to capture a fairly representative assessment of what a majority of people in a population of interest might see when viewing the same content. However, it is important to note that ensuring a coding scheme is easily understood by an untrained audience is not necessary and is sometimes not possible or desirable depending on the research goals. For instance, scripts about gender stereotypes are not likely to be readily observed by youth, even if they are subtly shaping the way they view the world.

Future research is needed to assess the associations between results of quantitative content analysis studies and viewer perception of sexual content in mass media. Reception based content analysis proposed by Ahuvia (2001) is one possibility, which calls for a combination of survey and quantitative content analysis research and uses coders from the target audience. Research that asks both coders and research participants to justify coding choices can offer insight into how decisions are made. Focus groups with target audiences that incorporate coding exercises followed by discussion can also provide insight into how the typical media user responds when asked to systematically code sexual content, and how coding schemes may be altered to allow for more consistent message interpretation between viewers in a population of interest and researchers and coders. Additional work in identifying differences in message interpretation according to audience characteristics would also be of value. Publishing findings from such studies, and from preliminary research conducted prior to a content analysis, will provide useful information to the field to inform future studies.

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