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**Deconstructing Gender and Media:  
A Mixed Methods Study with U.S. Early Adolescents**

by

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## **Abstract**

This mixed methods study investigates conceptions of gender both in and outside of the media among a sample of 11- and 12-year-olds. Data from a quantitative survey and qualitative writing responses were collected and analyzed from 54 sixth graders at a U.S public elementary school. Results show that the majority held inclusive views of gender, indicating a recognition of gender inequities in media and society and a desire to challenge traditional gender norms. However, perhaps due to gender-typed content, stronger perceptions of the similarity of the people appearing in YouTube videos, commercials, video games, music videos, and movies to the self were associated with more stereotypical views about gender roles and norms in a weak but statistically significant correlation. This may suggest that accepting media representations as accurately reflecting oneself can still be linked to endorsing more traditional roles and norms, even within a sample with generally quite open conceptions of gender.

## **Keywords**

gender, media, perceived realism, perceived similarity, early adolescents, mixed methods

## **Impact summary**

a. **Prior State of Knowledge:** Gender stereotypes are present in media used by adolescents, and most existing research finds a small association between media use and stereotypical beliefs about gender. Perceived realism and perceived similarity of characters to the self may help explain that association.

b. **Novel Contributions:** In a sample of U.S. adolescents, there is mixed methods evidence of inclusive views of gender. Yet, perceptions of media characters in select media as similar to the self were weakly but significantly correlated with more stereotypical views of gender.

c. **Practical Implications:** Self-reflection about identification processes can be encouraged by caregivers as well as media literacy educators. To work toward gender justice, content creators should avoid stereotypes in commercials, music videos, movies, video games, and YouTube content popular with early adolescents.

Many of today's young people view gender more openly than different generations (Twenge, 2023). Yet, research has found that video games (e.g., Lynch et al., 2016), movies popular with young people (e.g., González et al., 2020), music videos now seen on online platforms (e.g., Aubrey & Frisby, 2011) as well as other types of YouTube content (e.g., Döring & Mohseni, 2019) have salient gender-stereotyped themes. Commercials are also a site of enduring gender stereotypes (e.g., Mathes et al., 2016). Analyzing meta-analyses encompassing 76 studies, Ward and Grower (2020) reported positive correlations between media use and endorsement of gender stereotypes among young people that are consistent but modest in size. Such associations might depend on whether media users perceive connections between what they see on the screen and their own experiences (Ward & Grower, 2020). Perceived similarity—perceptions of commonality between individuals and media characters—and perceived realism of media content are theorized to be key factors in how young people make sense of media (Pinkleton et al., 2005) and are likely to enhance identification and therefore effects (Bandura, 1986, 2008).

In the present study, mixed methods are used to study a group of sixth graders' views of gender in general as well as in relationship to perceptions of similarity and realism regarding select forms of media. We ask one research question: How does a sample of U.S. 11- and 12-year-olds make sense of gender, gender roles, and gender norms? Given evidence of stereotypes in YouTube videos, commercials, video games, music videos, and movies, as well as prior effects studies (Ward & Grower, 2020), we also test two hypotheses: H1: Perceptions of people appearing in the media as similar to the self will be correlated with endorsement of gender stereotypes. H2: Perceptions of media representations of gender as realistic will be positively correlated with endorsement of gender stereotypes.

## Methods

### Sample

A sample of sixth graders at a public elementary school in a rural population in the U.S. northeast provide the data through a quantitative survey and a qualitative analysis of written responses to an open-ended prompt. This group of 11- and 12-year-olds was chosen due to their developmental capacity to consider gender in society and gender inequalities (Neff et al., 2007).

According to information from the Department of Education's website, the school's population is approximately 84.5% White, 7.8% multiracial non-Hispanic, and 7% Hispanic. 21.5% of the students are reported to have disabilities and 19.7% to be economically disadvantaged. According to data collected by the teachers, 16% of the sixth graders (11 out of 68 students) identified as students of color. Following a protocol approved by the Institutional Review Board at the University of Massachusetts Amherst (IRB#4176), 54 sixth graders submitted consent forms signed by parents/caregivers and provided assent, resulting in a participation rate of 79%. 46% identified as boys ( $n = 25$ ), 44% identified as girls ( $n = 24$ ). Two participants identified as non-binary, one as transgender male, and two did not report their gender identity. One participant's quantitative data was excluded due to multiple missing values, resulting in a sample size of 53. For the qualitative component, all 54 participants' responses were coded.

### Procedure

The survey was administered by classroom teachers and completed prior to the arrival of the authors at the school. The writing prompt was posed by the authors as the opening component of an in-school media literacy program on the topic of gender representation. Prior to the prompt being given, the authors introduced themselves and showed a truck commercial,

asking the sixth graders to write down their thoughts about it. Those worksheets—for a different study outside of the scope of the current paper—were collected without any ensuing instruction or discussion and then the prompt at the center of the current analysis was given. Thus, the data presented here are intended to represent existing views rather than views encouraged through media literacy instruction.

## **Measures**

### ***Conceptions of Gender***

Participants' conceptions of gender were examined qualitatively through responses to an open-ended writing prompt and quantitatively through responses to closed-ended survey measures. For the qualitative component, following guidelines for effective prompts to balance open-endedness and critique (Sekarasih et al., 2016), we posed the question “***Why do you think the topic of gender is important to think about?***” in a pen-and-paper format. Data were coded by transcribing all responses and using the constant comparison method to look for common meanings. Coding was conducted first by one author and then, independently, by another author with any differences in interpretation of responses and themes discussed and resolved. Multiple rounds of coding were necessary to ensure emerging themes captured the data and no additional themes were identified.

Two existing scales created for adolescents were used in the quantitative survey. The ***Gender Role Stereotypes Scale (GRSS)***; Mills et al., 2012) included 14 items that asked respondents to indicate whether certain tasks—half female stereotypical (e.g., perform household cleaning; stay home with a child who is sick) and half male stereotypical (e.g., mow the lawn; drive the car, when both a man and woman are traveling)—should be done by a man, a woman, or be a shared responsibility. A composite measure was created by coding responses that reflect

traditional gender norms a 1 and all other responses a 0. The recoded items were added and divided by 14 to create an average. Scores closer to 1 represent more traditional views,  $\alpha = 0.87$ .

A second quantitative measure consisted of 12 items from the *Social Roles Questionnaire* (SRQ; Baber & Tucker, 2006) and was used to capture general thinking rather than attitudes about particular tasks. SRQ items included “A father’s major responsibility is to provide financially for his children,” and “Girls should be protected and watched over more than boys,” as well as items that measure thinking beyond gender roles, such as “We should stop thinking about whether people are male or female and focus on other characteristics.” One item was dropped as school educators considered it too sensitive (“Men are more sexual than women.”). Responses ranged from 1 = strongly disagree to 5 = strongly agree and reverse coded items were recoded so that higher scores represent more traditional attitudes,  $\alpha = 0.95$ .

#### ***Perceived Realism about Gender Representation and Perceived Similarity***

Scales created and validated by Pinkleton and colleagues (2010) were adapted by extending the items to (1) reference multiple forms of media and (2) be about the topic of gender<sup>i</sup>. To measure *perceived realism about gender representation* ( $\alpha = .90$ ), ten items were used, two each for the five select media types: *Commercials/video games/music videos/YouTube videos/movies are a realistic source of information about how boys act* and *Commercials/video games/music videos/YouTube videos/movies are a realistic source of information about how girls act*, with response options from 1 = never to 5 = always. *Perceived similarity* ( $\alpha = .91$ ) also consisted of ten items: “*People in real life are like the people shown in commercials/video games/music videos/YouTube videos/movies*” and “*I am like people in commercials/video games/music videos/YouTube videos/movies*,” with response options from 1 = never to 5 = always. However, scores for *perceived realism about gender representation* and *perceived*



*similarity* were moderately correlated in the data ( $\rho = .50, p < 0.01$ ), and therefore we dropped the first set of items (“People in real life...”) and kept only the second set (“I am like...”) to make a stronger distinction both conceptually and empirically between the two. In the analyses, then, we limit the concept of perceived similarity to *perceived similarity to the self* ( $\alpha = .79$ ), which reduces the correlation with *perceived realism about gender representation* to  $\rho = .19, p = .17$ .

## Results

### Research Question: Conceptions of Gender

Both quantitative and qualitative data suggested that the majority of participants held inclusive views of gender. For instance, mean and median values on the *GRSS* ( $M = 0.14, Mdn = 0.07, SD = 0.21$ ) and the *SRQ* showed strong agreement with egalitarian or non-traditional attitudes ( $M = 1.44, Mdn = 1.25, SD = 0.49$ ). An exception emerged for “who should propose marriage?” for which 44% thought men should propose, 2% thought women should, and 54% considered it a shared responsibility. Shapiro-Wilk tests indicated non-normality for the *GRSS* and the *SRQ*. Despite being similarly skewed toward inclusive views of gender, the *GRSS* and the *SRQ* were only weakly correlated ( $\rho = .32, p < .05$ ).

In the discussion of emerging themes in the qualitative component, participants’ self-identifying gender is indicated after each quote: F indicates female, M indicates male, TG indicates transgender, and NB indicates non-binary. See the Table for a complete list of the themes and their frequency by the gender identity of the participants.

The most frequently occurring theme pertained to *gender stereotypes*, with 21 students sharing comments on this theme. Sample responses included, “I do think it is important because

there are so many gender stereotypes going around and people nowadays can be sexist without thinking about it. People label girls' things pink and boys' things blue" (F), "Also some people think that certain genders do certain things, and that's not true" (M), and "I think the topic is important to think about because if you think about it you might realize that stereotypes are messed up." (M). Many research participants, therefore, demonstrated their observations of gender-typed societal roles and norms and voiced their opposition to that gender-typing.

Seventeen participants mentioned *respecting people's right to self-identify*, with a subtheme emerging about this right, in general (three students), and another specifically mentioning the need to respect people whose gender identity does not match their biological sex (14 students). Examples in the latter include: "people may want to change their gender and they shouldn't be ignored" (M), "Gender is who someone is, how they identify. I believe anyone can be who they want to be so it's important to talk about because not everyone feels that way" (NB), and "Because people may not feel like either boy or girl, but in between" (F). These participants challenged the gender binary and acknowledged that not everyone does the same.

Ten sixth graders mentioned the need for *greater justice and/or equal rights*. Examples include, "Because at this time sexism is a real problem, and males are getting paid more, have more power, and people trust them more" (M), "I think gender is important because some people/genders are treated differently than others because of their genders and that's not fair" (F) and "there are issues that need to be solved; gender discrimination needs to stop and if we don't take action then I don't know who will" (M). In these responses, participants critiqued societal conditions related to (in)equality and (in)justice and some expressly called for change.

Three responses suggested that gender was *not important enough to talk about in school* and another three were coded as *backlash*, such as the following: "I don't think it's important.

The only thing that's important is that there are only TWO GENDERS (caps in original) male and female.” (M)

## **Gender and the Media**

### ***Qualitative Responses***

Ten participants mentioned *stereotypes in the media* in responses to the prompt. Commercials were the media form discussed most frequently, likely due to the timing of the qualitative data collection after they had seen a truck commercial. One participant made direct reference to the truck commercial (whereas the others did not), although his analysis was not limited to that text: “For example in some ads there are only men in trucks. But in some ads for the kitchen stuff there are women and this is not true girls can also be in trucks. And men can be in the kitchen.” (M) Other participants connected gender stereotyping in commercials with the advertising practice of targeting audiences, such as “Because some commercials or media try to target a certain gender, for example, a fast food commercial might say that it is ‘man food.’ Another example is commercials might use girls to gain sales” (F) and “Gender can sometimes make people think that this product is specifically for boys or girls and sometimes people are used just to try to persuade people by their gender.” (M) Still others considered media outside of commercials, such as: “The media puts up ‘invisible barriers’ to keep certain genders away from becoming more male/female” (TG-M) and “Also movies can be stereotypical. Like ‘the Sandlot’ he says ‘you play baseball like a girl.’ (M). Although responses mentioning media were likely primed by the prior screening of a commercial, they nonetheless show a capacity to extend from that exposure to a critique of gender stereotypes in other commercials and other media forms.

### ***H1: Perceived Similarity to the Self and Endorsement of Gender Stereotypes***

In the quantitative data, the Shapiro-Wilk test showed that scores for *perceived similarity to the self* ( $M = 1.79$ ,  $SD = 0.68$ ) were not normally distributed. Using Spearman's rho to test H1, therefore, we found *perceived similarity to the self* was significantly correlated with the *GRSS*,  $\rho = .27$ ,  $p < .05$ , and approached significance in association with the *SRQ* ( $\rho = .24$ ,  $p = .08$ ,  $95\% CI [-.047, .52]$ ). Given the skewness of the *GRSS* and *SRQ*, we further split the sample at the median of *GRSS* ( $Mdn = 0.07$ ) and *SRQ* ( $Mdn = 1.25$ ), so that two groups were created: one with less (lower score) and one with more (higher score) traditional views of gender. Logistic regression examined whether *perceived similarity to the self* predicted these two dichotomous measures. *Perceived similarity to the self* was a significant predictor of the *GRSS median split*. A  $X^2(1) = 7.76$ ,  $p = .005$  was found, which indicates good model fit. The amount of variance explained by the model was 18.2%, and classification correctly predicted by the model was 60.4% ( $B = 1.3$ ,  $SE = .53$ ,  $p = .01$ ,  $OR = 3.67$ ,  $95\% CI [1.31, 10.28]$ ). *Perceived similarity to the self* was also a significant predictor of the *SRQ median split*. A  $X^2(1) = 4.48$ ,  $p = .034$  was found. The amount of variance explained was 10.8%, and classification correctly predicted by this model was 58.5% ( $B = .92$ ,  $SE = .46$ ,  $p = .05$ ,  $OR = 2.51$ ,  $95\% CI [1.01, 6.22]$ ). Adolescents in our study who perceived media characters in commercials, video games, music videos, YouTube videos, and movies as more similar to themselves were approximately 3.7 times (*GRSS*) and 2.5 times (*SRQ*) more likely to be in the group with more traditional gender views. Therefore, H1 received support, although associations were modest in size and more robust for *GRSS* than *SRQ*.

### ***H2: Perceived Realism about Gender Representation and Endorsement of Gender Stereotypes***

The Shapiro-Wilk test showed that scores for *perceived realism about gender representation* were normally distributed ( $M = 2.38$ ,  $SD = 0.70$ ). Given the skewness of the *GRSS* and *SRQ*, however, correlations were again tested with Spearman's rho. *Perceived realism about gender representation* was not significantly correlated with the *GRSS* ( $\rho = .17$ ,  $p = .22$ ) or the *SRQ* ( $\rho = .21$ ,  $p = .13$ ). Logistic regression analysis further indicated that *perceived realism about gender representation* was not a significant predictor of the *GRSS median split* ( $B = .30$ ,  $SE = .40$ ,  $p = .46$ ,  $OR = 1.35$ ,  $95\% CI [0.61, 2.97]$ ) or the *SRQ median split* ( $B = .36$ ,  $SE = .41$ ,  $p = .38$ ,  $OR = 1.43$ ,  $95\% CI [0.64, 3.16]$ ). Thus, H2 was not supported.

### Discussion

The use of mixed methods in the present study provides a unique understanding of how a group of U.S. early adolescents thinks about gender in society and in a variety of media. The survey results showed that the majority of the 11- and 12-year-olds in the sample held inclusive views, and this was richly illustrated by the qualitative data that demonstrated recognition of gender stereotypes in the culture, a desire to break free from traditional gender norms and allow individuals to self-identify, and the importance of opening up gender norms for equity and justice. Some critique commercials, movies, or media in general as being a source of gender-stereotyped content and practices (such as targeted advertising). These observations align with the general shift toward inclusive gender attitudes among U.S. young people (Twenge, 2023).

Despite this general tendency toward openness and egalitarianism, the question of whether media-related processes might still be associated with traditional views of gender was explored given evidence of gender stereotypes in YouTube videos, commercials, video games, music videos, and movies (Aubrey & Frisby, 2011; Döring & Mohseni, 2019; González et al., 2020; Lynch et al., 2016; Mathes et al., 2016). Social cognitive theory (Bandura, 1986, 2008)

and the message interpretation framework (Pinkleton et al., 2010) suggest that media may still shape views of gender when viewed as realistic and when those who appear in the media are seen as similar to the self. Similar to Ward and Grower's (2020) observation of a small relationship between media use and traditional gender attitudes, our study indicates a modestly-sized association between accepting media representations as reflecting oneself (but not perceiving gender representations as realistic) and endorsement of more traditional gender roles.

We should note that the measures of perceived realism and perceived similarity to the self were operationalized in the study as broad orientations toward the five media types rather than as a precise indication of cognitive reasoning. Future research should pinpoint similarity and identification processes within various media texts or genres. The timing of the qualitative data collection the sixth graders were asked to write down thoughts about a commercial shown in class clearly shaped a small number of responses to the open-ended prompt. Indeed, the presence of researchers, teachers, or peers had the potential to lead to socially desirable responses and the wording of the prompt (presuming gender *is* an important topic to think about) may have been perceived as leading. The sample lacked racial or ethnic diversity and yet provided insights into a relatively homogenous demographic. Television was not among the media types examined, and yet was excluded because of evidence of little association between its use and views of gender in the public sphere (Hermann et al., 2022). Further, although statistical significance was approached or achieved in the data, Type I and Type II errors are possible. Additional research that addresses these limitations and explores how young media users negotiate overall views of gender with the media representations that they see would make an important contribution.

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**Table** Qualitative Responses to the Importance of Considering Gender Prompt

Theme	Subtheme	Gender identity of participant			
		Boys	Girls	TGNC*	Total
1. Gender stereotypes		10	10	1	21
	2.1 in general	3	0	0	3
2. Respecting people's right to self-identify	2.2 those whose gender identity does not match their sex	8	4	2	14
3. Need for equal rights/Justice		7	2	1	10
4. Critiques of media representations		4	4	2	10
5. It's not important	5.1 Backlash	3	0	0	3
	5.2 Not for class	0	2	1	3

\*Transgender and gender non-conforming

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**Erica Scharrer:** Erica Scharrer (PhD, Syracuse University) is Professor of Communication at the University of Massachusetts Amherst where she studies young people's interactions with media and technology in the context of media literacy education and beyond.

**Alina Ali Durrani:** Alina Ali Durrani is a PhD candidate at the University of Massachusetts, Amherst. Her research explores political discourse through the lens of language and social interaction. Alina examines how interaction, culture, politics, and media converge with a focus on the South Asian context. She also studies digital interactions on platforms like TikTok, analyzing their cultural and political implications.

**Declaration of interests:** The authors report there are no competing interests to declare.

**Data availability:** The quantitative data that support the findings of this study are available from the corresponding author, Erica Scharrer, upon reasonable request.

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<sup>1</sup> *Critical thinking about the media* was also measured. Due to length constraints, however, findings pertaining to this measure are not included in the current paper.