ORIGINAL ARTICLE

Altruistic and Egoistic Motivations of Male and Female Characters in Common Sense Media Television Programming for Children

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Abstract

Guided by previous work investigating media as a socializing agent for individuals' expectations about gender roles in society and the model of intuitive motivation and exemplars, the present study investigated the extent to which television programing recommended as socially educational by Common Sense Media depicts male and female characters with certain altruistic (i.e., other-focused) and egoistic (i.e., self-focused) motivations for behavior. Specifically, the current study content analyzed 147 children's television episodes to assess whether main characters were (a) male or female and (b) primarily motivated by one of 11 altruistic or egoistic motivations. Results revealed that (1) main male characters exemplified authority, security, and hedonism most often, whereas main female characters exemplified care, autonomy, and relatedness most often, (2) programming recommended for boys featured more portrayals of the authority and security motivations, whereas programming recommended for girls featured comparatively more portrayals of care, fairness, autonomy, and relatedness, and (3) main characters across socially-educational television programs were more likely to be women/girls than men/boys. Results are discussed in terms of their potential for gendered motivations emphasized in popular entertainment media to shed light on (a) how motivations for different genders are valued by content curators and (b) what motivations male or female audiences of this content would be expected to value after viewing.

Investigations into a narrative's ability to successfully teach children scientific facts, moral lessons, and social norms generally have suggested that an audiences' learning from exposure to this content is moderated by certain *narrative cues* present in the content (e.g., Fisch et al., 2001). In particular, the gender of story characters may act as one narrative cue that can moderate what young audiences learn from exposure to those stories (Signorielli, 1993). Previous work has found that repeatedly observing specific narrative behaviors associated with one gender can shape young audiences' perceptions of those behaviors as "male behaviors" or "female behaviors" (see Aladé et al., 2021; Scharrer & Blackburn, 2018).

Social cognitive theory (SCT; Bandura, 1977, 2002) examines how repeatedly observing gendered social behaviors can influence an individual's understanding of their social world. For example, Ringrose et al. (2013) found gendered biases in the moral expectations of digital content posted by men versus women. Specifically, they found that viewers put stronger moral expectations on female users than male users, meaning viewers expected female users to perform moral behaviors more frequenlty than male users. In addition, Jackson and Tinkler (2007) found gender differences in the acceptance of male characters performing immoral behavior (i.e., drinking or smoking), whereas female characters performing the same behaviors were considered unladylike or "messy." According to SCT, this kind of gendered value discrimination can influence the moral behaviors young individuals might be expected to adopt depending on their own gender, as well as which values, they deem appropriate for men versus women in the real world. Identifying

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the gendered biases toward moral and self-centered behaviors in children's media is a first step toward understanding the potential influence of these gendered media portrayals on viewers' expectations of others and themselves. The current study examines the extent to which different moral and self-centered behaviors are typically associated with male versus female characters in children's television that is rated as socially-educational by Common Sense Media, a popular content recommendation source among parents and educators (CommonSenseMedia.org). Aley et al. (2021) defined socially-educational programs as those emphasizing positive role models, which differs from academically educational programs which focus on scholastic learning (i.e., literacy, numeracy, science).

Research guided by the Model of Intuitive Motivation and Exemplars (MIME; Tamborini, 2013) has investigated the extent to which popular children's media features narrative characters who are *motivated* by moral (i.e., altruistic) and self-centered (i.e., egoistic) motivations. MIME research suggests that motivations shown in a positive light (i.e., rewarded or exemplified by likable characters) would be more likely to be deemed socially desirable and important by audiences, thus resulting in viewers' adoption of those motivations for their own behaviors (also see Bandura, 2002; Bussey & Bandura, 1999). Integrating the research findings on gender portrayals in children's media and MIME research, one might expect that portraying specific motivations for behavior as traditionally masculine or feminine could act as one type of *narrative cue* that might moderate whether young audiences of different genders would deem those motivations as desirable (e.g., Bandura, 2002; Gilligan, 1977). The current study investigates how children's socially-educational television content associates specific altruistic and egoistic motivations for behavior with specific genders.

Character Gender as a Narrative Cue in Media

Gender stereotypes can be communicated in narrative media through the unequal representation of different gendered characters as well as the aggregate actions associated with different genders (Aladé et al., 2021; Hamlen & Imbesi, 2020). Many studies have demonstrated that female characters are depicted far less frequently than male characters (e.g., Aladé et al., 2021; Aley & Hahn, 2020; McCabe et al., 2011). Moreover, male characters are often depicted as unafraid, aggressive, and in charge (Scharrer & Blackburn, 2018), whereas female characters are typically associated with physical beauty, sexual availability, and sensitivity to the needs of others (Hentges & Case, 2013; Walsh & Ward, 2008). The prevalence of gender disparities and stereotypical portrayals is notable, considering

research suggesting that repeated exposure to these inequities can shape young audiences' conceptions about the worth and roles different genders have in society (Bem, 1981, 1983; also see Kneeskern & Reeder, 2020).

Social cognitive theory (SCT; Bandura, 1991) posits that that human behavior is influenced by a combination of personal (e.g., self-efficacy, values), environmental (e.g., feedback, observing other's behaviors), and behavioral (e.g., prior behaviors and their reward/punishment) factors. SCT suggests that humans are driven to behaviors that balance what the individual has experienced in the past, along with the rewards/punishment of behaviors viewed from external sources of influence (Lim et al., 2020; Pfaff-Rüdiger & Riesmeyer, 2016). By viewing media characters' behaviors, and their motivations for behaviors, along with the reward or punishment associated with their action, mass media acts as an external influence leading audiences to adopt behaviors and motivations they deem socially acceptable. When individuals choose media, they are comparing themselves to the media content in terms of personal, social, or normative standards that are learned from sources such as family or social institutions (LaRose, 2009).

Similar to SCT, gender schema theory (Bem, 1981) aims to explain the effects of repeatedly observing gender stereotypes in media. Observing aggregate patterns in gendered behavior is thought to influence audiences' gender schema, or the mental frameworks that individuals use to organize perceptions of gender roles. Specifically, observing characters of the same gender as oneself communicates the social behaviors that are normative for that gender group to perform, whereas observing characters of a different gender than oneself is thought to foster expectations about the behaviors that other gender group members are supposed to perform. According to the theory, audiences then direct their real-world attitudes and behaviors to match their gender schema (Bem, 1983; Wood & Eagly, 2015).

The Model of Intuitive Motivation and Exemplars

Drawing on moral foundations theory (Haidt & Joseph, 2007) and exemplification theory (Zillmann, 1999), the MIME (Tamborini, 2013) posits a recursive relationship between media and audiences wherein exposure to media content that exemplifies different *intuitive motivations* can increase the importance (or salience) of those motivations in the minds of viewers. As intuitive motivations become more salient, audiences seek out additional content featuring those intuitive motivations, which subsequently leads media creators to produce content featuring the intuitive motivations that audiences desire (Tamborini, 2013).

Intuitive motivations (referred to as *motivations*) are classified as evolutionarily-formed evaluative sensitivities that are activated in response to different environmental or social stimuli, such as media exposure (Haidt, 2001). The MIME considers motivations for behavior that are altruistic (a drive to benefit others) and egoistic (a drive to benefit one's self; see e.g., Tamborini et al., 2016a, b). The MIME's five altruistic motivations are adopted from moral foundations theory (Haidt & Joseph, 2007, and include *care*, which is associated with compassion, empathy, and concern for others' well-being; *fairness*, pertaining to the desire to strive for truth, equality, and justice; *ingroup loyalty*, or a bias towards one's ingroup and against members of one's outgroup; *authority*, which deals with respect towards social traditions and institutional dominance hierarchies; and *purity*, or the drive toward living a wholesome, noble life.

The MIME also considers six egoistic (or self-focused) motivations, which are adopted from two sets of literature. The first three motivations are adopted from self-determination theory (SDT; Deci & Ryan, 1985) and include *competence*, which is a drive towards achievement; *autonomy*, the drive for psychological freedom; and *relatedness*, the drive to feel connected with others. The remaining three egoistic motivations are derived from Schwartz's (1994) research on universal human values and include *security*, the drive to feel safe; *hedonism*, the drive to indulge in physical pleasures; and *power*, the drive to have control over others or resources.

Observing these motivations exemplified by narrative characters in media content can increase the importance that an audience places on them. MIME logic contends that *recent* exposure to exemplars of specific motivations can increase the short-term importance of those motivations to audiences, whereas *frequent* exposure to motivation exemplars can increase the importance that audiences place on those motivations in the long-term (Eden et al., 2014; Tamborini et al., 2016a, b, 2018). The MIME's short-term processes have been demonstrated in both adults (Eden et al., 2014; Tamborini et al., 2018) and children (Hahn et al., 2022). Although the MIME's long-term processes have received less attention by scholars, research on children's learning from educational media offers insight into how media may play a role in long-term socialization processes, specifically with regard to the present study's consideration of narrative character gender as an important narrative cue.

Children's Learning from Media

Research examining how children learn values from media often study how observing media behaviors can lead children to adopt or at least favor those same behaviors (e.g., Cingel, 2016; Gentile et al., 2014; Jordan, 2004). Taken together, research in this area suggests that media content broadly, and television content specifically, is a wide-reaching socialization tool capable of teaching children the importance of the values that are featured in content (e.g., Fisch, 2005; Mares, 1996). The MIME conceptualizes socialization from media in terms of media content's ability to shape audiences' motivational *salience*, or the importance that an audience places on specific motivations for behavior (Hahn, 2022; Tamborini, 2013).

By taking an approach rooted in the study of intuitive motivations, the MIME attempts to add nuance to our understanding of media influence. For example, consider the show *SuperGirl*, which frequently features helping behaviors. A behavior-based investigation might examine how young audiences who view SuperGirl's helpful acts might adopt helping behaviors in their own lives. A MIME-based approach would instead argue that the effect on a young audience would depend on the SuperGirl's motivation for helping. SuperGirl could be motivated to help another character out of compassion concerns (a care-based motivation), or due to her ingroup preferences (an ingroup-loyalty motivation). Beyond altruistic motivations, she might also help another character out of egoistic (selfish) concerns; such as demonstrating that she is a masterful superhero to those who questioned her (a competence motivation). Whereas an examination of the effects of media exposure at the broader behavioral level would miss the distinct motivations underlying SuperGirl's helping behavior, a MIME-based approach would not. According to MIME, one would expect that what viewers might learn from viewing SuperGirl's helpful acts would entirely depend on her reason for helping in the first place.

Despite the difference in approaches to considering media's influence, researchers have noted that children's learning from media depends on a variety of factors. One such factor is the presence of narrative cues, or content indicators that provide the audience with a lens through which to evaluate the exemplified behavior or motivations. Research into a narrative's ability to teach moral norms has found that associating a moral behavior, like violence, with punishment can govern the extent to which young audiences think those behaviors are 'good' (Krcmar & Cooke, 2001). Thus, the presence of narrative cues appears to moderate what children learn from media content.

Several MIME-based content analyses have investigated the prevalence of moral narrative cues in popular children's books and television (Hahn et al., 2022; Tamborini et al., 2017). Additional research has focused on the moral motivations highlighted in children's educational media found that shows promoting social skills highlighted altruistic motivations, especially the care motivation (Aley et al., 2021). In addition, shows focusing on scholastic abilities heavily featured egoistic motivation, particularly the competence motivation. Though this exploration provides valuable information on the content of popular children's television, this

study did not examine the role of the character's gender in the performance of moral motivations. As children associate the observations seen in media with the real world (Bem, 1981, 1983; Kneeskern & Reeder, 2020), it is important to understand if motivations are associated with different genders. The current study investigates the gender of narrative characters as another type of narrative cue that could moderate media's ability to communicate the importance of different altruistic and egoistic motivations to young audiences.

Gender Portrayals and the Model of Intuitive Motivation and Exemplars

In concert with the MIME (Tamborini, 2013), reasoning from gender schema theory would lead to the belief that repeated exposure to motivation exemplars associated with particular genders could alter young audiences' gender schema such that they perceive specific motivations for behavior as typically masculine or feminine. The present study seeks to take an initial step toward testing this logic by first examining the extent to which content rated as socially educational associates specific motivations with characters of different genders.

Previous research has found differences in the extent to which men and women place importance on altruistic and egoistic considerations (Gilligan, 1977; Graham et al., 2011). For instance when women are faced with a decision, they report feeling restricted to choosing outcomes that would benefit others over outcomes that would benefit themselves. Men, on the other hand, describe their judgment process in terms of autonomy and doing what is best for themselves, compared to others. In MIME terms, this would suggest that when confronted with a moral judgment, women tend to be driven by altruistic motivations, whereas men tend to be driven by egoistic motivations (Graham et al., 2011).

The Present Study

According to the MIME, repeated exposure to motivation exemplars should increase the chronic salience of the corresponding motivations in audience members (Tamborini, 2013). As motivations become more chronically salient to an audience, they may seek out additional media that emphasizes these salient motivations, which subsequently leads media creators to create more content featuring the motivations that audiences desire to see (Tamborini, 2013). Put another way, motivation exemplars may appear in popular media content as a function of the importance any given society places on those motivations. Thus, investigating the aggregate patterns of narrative cues surrounding motivation exemplars should

provide at least an initial understanding of how society views the motivation (Eden et al., 2014; Tamborini et al., 2016a, b).

Examining a sample of shows from Common Sense Media recommendations, Aley et al. (2021) found altruistic and egoistic motivations to be heavily featured in educational television shows. Yet Aley et al. stopped short of examining how altruistic and egoistic motivations may be differentially associated with male and female characters. The current study builds off of the findings of Aley et al. (2021) by examining how motivations are associated with (1) character gender and (2) programming recommendations for boys versus girls by Common Sense Media.

Taking into account previous research that suggests associating specific gendered characters with behaviors in content can influence audiences' worldviews (Kneeskern & Reeder, 2020), the present study examines how attributes of narrative characters (i.e., gender) may moderate the ability of narrative television content to socialize young audiences. Thus, we ask:

RQ1: Are altruistic or egoistic motivation exemplars more likely to be associated with male or female characters in children's educational television?

According to gender schema theory (Bem, 1981), repeatedly observing gender stereotypes can influence how individuals perceive gender roles. If children are encouraged to watch specific programs based on their gender, the character depictions they view may influence the development of their real-world gender schemas. As female characters appear in media content less frequently (e.g., Aley & Hahn, 2020), female viewers have fewer examples to model after and thus might be expected to be especially receptive to the values communicated by the few female characters that exist in content aimed at them. With the expectation that children may be more likely to place importance on motivations emphasized by characters in the shows that are aimed at their own gender, for instance because they may view these characters as role models (e.g., Bandura, 2002), we examine the extent to which characters in shows that are recommended for boys and girls are differentially associated with specific motivations. Thus, we asked:

RQ2: How do television programs recommended for boys or girls differ in the frequency with which the different types of motivations are emphasized?

Method

Sample

To obtain a sample of socially educational television content, we consulted CommonSenseMedia.org, a popular online resource for parents and educators looking to find age-appropriate media for children. Common Sense Media

is a non-profit organization that consults children's media experts and educators to review and rate "everything kids watch, read, and play" (Commonsensemedia.org) with the goal of providing a comprehensive resource for parents to understand what is featured in the content their children consume. According to their annual report, over 110 million people have used the website ratings and advice (Common Sense, 2019). Common Sense Media employs expert reviewers to rate and recommend media based on their inclusion of educational values, positive representations and role models, and avoidance of sexual scenarios, explicit language, violence, drinking, drugs, smoking, and consumerism. Although independent raters are described as expert reviewers, Common Sense Media does not provide additional information on reviewers or their reviewing standards to the public (Taggart et al., 2019). Based on the recommendations of independent expert raters, CommonSenseMedia. org compiles lists of content it deems as socially and factually educational for different age groups.

Because we were interested in investigating socially educational television content in the present study, we obtained Aley et al.'s (2021) data from their OSF repository. We then coded the gender of characters previously identified in two of their three lists. These two lists were used in the current study as CommonSenseMedia.org explicitly described the lists as featuring role models for boys and girls. The lists we used as a sampling frame included: "TV That's Good for Boys" ($n = 44$ programs featuring "strong male characters" as well as "avoid(ing) stereotypes – of both boys and girls – and offer(ing) up a world that's made of male and female characters"; https://www.commonsensemedia.org/lists/tv-thats-good-for-boys) and "Positive Role Model TV for Girls" ($n = 51$ programs featuring "girls and women in a positive light"; https://www.commonsensemedia.org/lists/positive-role-model-tv-for-girls). Each list contained several shows recommended for children of each age group identified by Common Sense Media (ages 2–4, ages 5–7, ages 8–9, ages 10–12, and ages 13 +).

Next, we examined Aley et al.'s (2021) list of randomly sampled three episodes from each of the $N = 95$ programs. IMDb.com was consulted to find a list of available episodes for each program. Aley et al. (2021) then entered the number of episodes from each program into random.com, selecting the first three corresponding numbered episodes for inclusion in their final sample. Next, several video-on-demand services were consulted in order to find the sampled episodes. If any selected episodes could not be viewed on Netflix, Hulu, Amazon Prime, or YouTube the entire program was removed ($n = 12$) from the sample. In addition, programs that appeared on both lists ($n = 17$) were removed from the sample (resulting in the removal of $n = 34$ duplicate programs across both lists). See (https://osf.io/k3yru/?view_only=cbd370d80aa744c9b2c9000a613b5f8a) for

unavailable and duplicate shows. This process resulted in the removal of $n = 46$ programs from the final sample, leaving a total of $N = 49$ programs and $N = 147$ episodes for inspection in our study ($n_{boy\ programs} = 21$; $n_{boy\ episodes} = 63$; $n_{girl\ programs} = 28$; $n_{girl\ episodes} = 84$). A list of all television programs analyzed in the current study, the study's coding manual, supplementary analyses, and the study's data and analysis syntax are openly available at https://osf.io/k3yru/?view_only=cbd370d80aa744c9b2c9000a613b5f8a

From each episode, Aley et al. (2021) used individual scenes as the units of analysis. Because the scene marking process was time consuming and we did not want the MIME coders to take on the task of both marking scenes and coding motivations, we recruited two separate coders for scene delineation. Thus, two separate coders (who were not involved in the study's main coding procedure) were trained on how to identify scenes and the main characters' gender.

First, coders were instructed to record the timecodes of each scene, which was defined as any change in time, setting, characters, or story focus throughout each episode. To determine reliability of scene demarcation, fifteen episodes (10.2% of all episodes) were randomly selected for intercoder reliability assessment. Any scene timecode overlap within 5 s between coders was considered an agreement. For example, if coder 1 marked a scene running from 0:10 through 1:00, and coder 2 marked a scene as running from 0:12 through 0:58, we would consider that an agreement. Reliability for scene demarcation was strong with 88.9% agreement among coders. In order to use these scenes in the final sample, disagreements occurring in this sample of scenes were discussed by the coders until agreement was reached. This process resulted in a total of 559 scenes. After acceptable agreement on scene demarcation was reached, the remaining 132 episodes were divided among coders for independent scene demarcation. This final process resulted in in a total of 5482 scenes for inspection in the main coding procedure ($n_{boy\ scenes} = 2300$; $n_{girl\ scenes} = 3182$).

Last, the same pair of coders was instructed to identify the main character present in each scene. Main characters were defined as the character having the greatest proportion of screen time, dialogue, or action in a scene.

MIME Coding Procedure

Coding Manual

In order to code for the presence of altruistic and egoistic motivations, Aley et al. (2021) adopted a coding scheme based on the MIME. This scheme has been used successfully in the past to identify altruistic and egoistic motivations depicted in various children's media including television (Hahn et al., 2017; Lewis & Mitchell, 2014;

Tamborini et al., 2017), songs (Hahn et al., 2019), as well as books (Tamborini et al., 2021).

The MIME coding scheme operationalizes altruistic and egoistic motivations based on definitions provided by moral foundations theory (Haidt & Joseph, 2007), SDT (Deci & Ryan, 1985), and research on human values (Schwartz, 1994). Instead of offering a categorization scheme for the *behavior* of narrative characters, the MIME coding scheme identifies the *motivation* underlying narrative characters' behaviors according to whether their behavior is driven by a concern that was altruistic (offering benefit to others) or egoistic (offering benefit to self). For example, in a scene featuring Supergirl rescuing a child from a burning building in order to save the child's life even though it puts herself in danger, the MIME coding scheme would identify Supergirl's actions as motivated by *violating security* in order to *uphold care* because she put her own life in danger in order to help a child. Alternatively, in a scene in which Buffy the Vampire Slayer kills a vampire who was going to kill her, the MIME coding scheme would identify Buffy's actions as motivated by *violating care* in order to *uphold security*—because Buffy was motivated to harm another entity in order to protect herself. The complete coding manual is available at https://osf.io/k3yru/?view_only=cbd370d80aa744c9b2c9000a613b5f8a

Coder Training

Three coders completed 12 weeks of training on the MIME coding scheme. Coders were given weekly practice items to code independently at home. Then, during weekly training meetings, coders reviewed the coding manual, practiced coding together as a team, and discussed disagreements from the previous week's practice items. When acceptable agreement, at least 80% agreement, was achieved on the practice material, the coders began to code the study's sample. For each scene of the study sample, coders were instructed to identify which, if any, of the 11 motivations drove the behavior of the identified main character (motivation presence) and whether the character upheld or violated that motivation (motivation valence). In the end, only a small proportion of scenes featured a motivation being violated ($n=385$; 7.02% of all scenes in the study's sample), so we opted to drop the valence coding category from further analysis. All analyses focus on the presence of a motivation exemplar.

To assess intercoder reliability, we randomly selected a section (11.29%, $n=619$) of the scenes in our sample to be rated by all coders. Using Krippendorff's alpha as the metric for assessing intercoder agreement, the criterion for acceptable intercoder reliability was set at .70. As reported by Aley et al. (2021), all motivation reliabilities met this criterion (Table 1). To address coder disagreements in the scenes coded for reliability, majority rule was utilized. Once

acceptable reliability was reached in the reliability sample, the remaining 4863 scenes were divided into three equal portions and rated individually by each coder.

Coding Character Gender in the Present Study

Building on Aley et al.'s (2021) method, we trained a pair of coders to identify the gender of characters. Character gender was identified by taking into account the character's name and pronouns (traditionally female versus male names), physical characteristics (e.g., clothing and hair style), and/or personality characteristics (e.g., soft spoken and gentle versus physically strong and active). Rarely, a character was not able to be identified as male or female, such as Yael Baron from Degrassi, The Next Generation, who is played by a female actress, but does not use identifying pronouns in the show. In addition, Yael Baron is referred to as "they" on IMDb and Wiki fandom sites. In 380 scenes (7% of the total sample), character gender could not be identified. This was either because the main character was androgynous, or because it was impossible for coders to identify one main character in the scene (e.g., when scenes served as introductions panning over a landscape without any characters present or when two heroes were simultaneously fighting a villain). As the central focus of this paper is to examine possible associations between character gender and motivation exemplars, we excluded scenes without an identified main character gender from analyses. This left a total of 5102 scenes for inspection in the present study. As a test of intercoder reliability, coders analyzed 49 (33.33%) randomly selected episodes for main characters and their genders (male/female/unidentifiable). Intercoder agreement for character gender identification can be found in Table 1. The remaining 98 episodes were divided evenly among the coders for independent coding.

Table 1 Intercoder Agreement for All Variables of Interest

Motivation	Percent Agreement	Krippendorff's alpha
Main character	97.66%	.94
Character gender	96.38%	.91
Care	92.11%	.72
Fairness	96.14%	.74
Ingroup Loyalty	97.37%	.76
Authority	98.03%	.73
Purity	98.60%	.74
Competence	88.24%	.70
Autonomy	98.68%	.71
Relatedness	94.82%	.77
Hedonism	98.21%	.81
Power	96.81%	.73
Security	96.01%	.73

Based on the suggestion of an anonymous reviewer, we verified our gender coding against the gender of every unique character in our sample as indicated by IMDb.com. Specifically, we read the synopses and character descriptions on IMDbcom for each show in our sample. Any reference to a character being a male, female, or other/unidentifiable was noted. Next, the gender of every character was compared to the manual gender coding we conducted for the present study. Of the 642 unique characters in our study, only three discrepancies were found. These few discrepancies are likely due to lacking gender cues in the specific episodes investigated in the present study. In addition, we note that these discrepancies had no impact on the study's results because none of these three characters were subsequently coded as being associated with a motivation. A table showing the list of characters, along with the gender of each character according to IMDb and the present study's coding can be found in the study's OSF.

Results

Descriptive Statistics

Of the 5102 scenes in the present study's sample, at least one motivation was present in 77.63% of content ($n_{scenes} = 3961$). Egoistic motivations were present in 53.09% of all scenes whereas altruistic motivations were portrayed in 46.91% of all scenes. The frequency of scenes featuring each individual motivation can be seen in Table 2. A total of 1872 (47.26%) of the scenes featured a main character who was male, whereas 2089 (53.74%) featured a main character who was female. A one-way chi-square analysis indicated that female characters were present proportionately more often than male characters across all socially-educational television programming in our sample, $\chi^2 (1, N = 3960) = 11.88$, $p < .001$, *Cramer's V* = .05.

Main Research Questions

In order to answer the study's first research question and examine whether motivation exemplars were associated more often with male or female characters, we conducted a 2 (character gender: male/female) $\times$ 2 (motivation type: altruistic/egoistic) chi-square test. Results suggested no difference in the extent to which altruistic or egoistic motivations overall were associated with male or female characters, $\chi^2 (1, N = 3961) = .15$, $p = .69$, *Cramer's V* = .01.

To examine whether any individual motivation exemplars were associated with male or female characters, we conducted a 2 (character gender: male/female) $\times$ 11 (individual motivation type) chi-square test, $\chi^2 (10, N = 3961) = 49.14$, $p < .001$, *Cramer's V* = .11. Adjusted standardized residuals demonstrated that male characters most often exemplified the motivations of authority, security, and hedonism, whereas female characters most often exemplified the motivations of care, autonomy, and relatedness. No other statistically significant differences emerged. The frequency of motivation exemplars associated with male and female characters, and their associated adjusted standardized residuals, can be found in Table 2.

For the second research question, we examined the differences in motivational portrayals in content recommended for boys compared to content recommended for girls. The frequency and proportion of scenes featuring motivations in content recommended for boys versus girls can be seen

Table 2 Frequency of Individual Motivations Present in Overall Sample and Associated with Male/Female Characters

Motivation	Associated with male character	Associated with female character	Adjusted standardized residual
Care ($n = 869$)	378 (43.50%)	**491 (56.50%)**	**2.5**
Fairness ($n = 318$)	152 (47.80%)	166 (52.20%)	0.2
Loyalty ($n = 452$)	222 (49.10%)	230 (50.90%)	0.8
Authority ($n = 174$)	**96 (55.20%)**	78 (44.80%)	**2.1**
Purity ($n = 45$)	24 (53.30%)	21 (46.70%)	0.8
Altruistic overall ($n = 1858$)	872 (46.90%)	986 (53.10%)	0.4
Competence ($n = 771$)	365 (47.30%)	406 (52.70%)	0.0
Autonomy ($n = 123$)	36 (29.30%)	**87 (70.70%)**	**4.1**
Relatedness ($n = 589$)	254 (43.10%)	**335 (56.90%)**	**2.2**
Security ($n = 349$)	**194 (55.60%)**	155 (44.40%)	**3.3**
Hedonism ($n = 138$)	**81 (58.70%)**	57 (41.30%)	**2.7**
Power ($n = 133$)	70 (52.60%)	63 (47.40%)	1.3
Egoistic overall ($n = 2103$)	1000 (47.60%)	1103 (52.70%)	0.4

Note. Numbers in bold represent residuals greater than 1.96, which are interpreted as statistically significant. Percentages represent the percent of times that motivation exemplar was associated with a male or female character.

Table 3 Frequency and Percentage of Motivation Exemplars Associated with Male and Female Characters

Motivation	Motivations in content recommended for boys	Motivations in content recommended for girls	Adjusted standardized residual
Care ($n=869$)	377 (40.10%)	**564 (59.90%)**	**2.2**
Fairness ($n=318$)	111 (32.20%)	**234 (67.80%)**	**4.3**
Loyalty ($n=452$)	218 (45.10%)	265 (54.90%)	0.9
Authority ($n=174$)	**94 (51.90%)**	87 (48.10%)	**2.4**
Purity ($n=45$)	19 (33.90%)	37 (66.10%)	1.4
Altruistic overall ($n=1858$)	819 (40.80%)	**1187 (59.20%)**	**2.9**
Competence ($n=771$)	403 (46.10%)	471 (53.90%)	1.9
Autonomy ($n=123$)	28 (22.40%)	**97 (77.60%)**	**4.8**
Relatedness ($n=589$)	218 (34.00%)	**423 (66.00%)**	**5.1**
Security ($n=349$)	**275 (70.30%)**	116 (29.70%)	**11.4**
Hedonism ($n=138$)	76 (48.70%)	80 (51.30%)	1.4
Power ($n=133$)	56 (37.80%)	92 (62.20%)	1.3
Egoistic overall ($n=2103$)	**1056 (43.20%)**	1279 (56.80%)	**2.9**

Note. Numbers in bold represent residuals greater than 1.96, which are interpreted as statistically significant.

in Table 3. To examine motivational differences in content recommended for boys and girls, we conducted a 2 (content recommendation: boys/girls) × 2 (motivation type: altruistic/egoistic) chi-square test. Results showed that content recommended for boys was more likely to emphasize egoistic motivations ($n=1056$), whereas content for girls was more likely to emphasize altruistic motivations ($n=1187$), χ^2 (1, $N=4341$) $=8.50$, $p<.01$, *Cramer's V* $=.04$.

A follow-up 2 (content recommendation: boys/girls) × 11 (individual motivation type) chi-square test revealed that content recommended for boys featured the motivations of authority and security proportionally more often than content recommended for girls (see Table 3). Content recommended for girls was more likely to feature the motivations of care, fairness, autonomy, and relatedness compared to content recommended for boys, χ^2 (10, $N=4341$) $=197.30$, $p<.001$, *Cramer's V* $=.21$.

Discussion

Drawing on logic from the MIME, SCT, and gender schema theory, the present study investigated the association between the gender of narrative characters and the intuitive motivations they exemplified in popular children's socially educational programming. Our study revealed three main findings about children's socially educational television content. First, main male characters exemplified authority, security, and hedonism most often, whereas female characters exemplified care, autonomy, and relatedness most often. Second, the shows recommended for boys featured more portrayals of the authority and security motivations, whereas the shows recommended for girls

featured comparatively more portrayals of care, fairness, autonomy, and relatedness. Third, main characters across socially-educational television programs were more likely to be women/girls than men/boys. The present study demonstrates that there are aggregate patterns in the extent to which motivation exemplars are associated with specific character genders. Additionally, these findings are in line with SCT and gender schema theory, both of which suggest that exposure to narrative exemplars of certain values or behaviors with characters of only one gender can shape audiences' real-world perceptions of what constitutes appropriate gender roles (Kneeskern & Reeder, 2020). This research lays the foundation for future examinations of the effects of exposure to character gender as a narrative cue on children's learning from socially educational television. In the following section, we discuss the theoretical implications of our findings, review the study's limitations, and highlight how these findings might be of practical value to parents and educators in search of quality programming that fosters children's adoption of social norms.

The study's main research question was focused on assessing the extent to which motivational exemplars might be associated with characters of specific genders. Analyses revealed that male characters were associated most often with exemplars of authority, security, and hedonism, whereas female characters were associated most often with exemplars of care, autonomy, and relatedness. These findings echo previous research showing that in the real world, women tend to favor motivations based in caring for others (e.g., Gilligan, 1977, 1990; Graham et al. 2011, as well as egoistic motivations from positive psychology (e.g., autonomy, relatedness; Murnaghan et al., 2014)).

For example, large-scale work by Graham et al. (2011) has examined whether gender differences exist in the importance placed on the altruistic motivations identified by moral foundations theory. Based on a sample of 34,476 adults surveyed by Graham and colleagues, women tended to favor motivations of care, fairness, and purity, whereas men favored ingroup loyalty and authority.

Additional research has examined the varying importance that men and women place on the intuitive motivations identified by self-determination theory (SDT; Deci & Ryan, 1985; see Standage et al., 2005). Surveying 10,632 teenagers, Murnaghan and colleagues (2014) found that young women placed greater importance on autonomy and relatedness considerations than young men. Although this research was not attempting to directly test MIME, these findings might explain the differences between male and female characters in terms of narrative cues (or desirability indicators) affecting the *chronic salience* of audiences' motivations. That is, repeated exposure to motivation exemplars in media content that are associated with particular genders may shape the gender schema of audience members such that they not only perceive specific motivations for behavior as typically masculine or feminine, but that they also favor the motivations most often exemplified by characters of their own gender (Bem, 1981; Tamborini, 2013).

Notably, the belief that gendered motivational portrayals may affect the salience of young audiences' motivations assumes that child audiences are capable of comprehending the motivations they observe in characters of media content. Some previous work has demonstrated that children as young as three years old are capable of recognizing motivations for behavior in others (Vaish et al., 2010). However, other work suggests that eight-year-olds have difficulty recognizing motivations when they are not made immediately apparent (Collins, 1973). With this research in mind, scholars might expect gendered motivation depictions to affect the salience of very young audiences' motivations only when the motivation they observe from a similarly gendered character is clearly apparent. Although testing causality is beyond the scope of the present study, we attempt to lay the foundation for testing this developmental process by first examining the extent to which content rated as socially educational associates motivational exemplars with characters of specific genders.

Based on this previous research, the findings that male characters were more likely to exemplify acts motivated by respect for authority, safety concerns, and indulgence in physical pleasure, whereas female characters were more likely to exemplify acts motivated by caring for and being connected to others is perhaps not surprising. Stereotypical views of gender roles often expect men to act as dominant, tough protectors, and women as nurturers (Scharrer & Blackburn, 2018), and it appears that socially educational

content features these stereotypical gendered tropes, at least to some degree. Notably, repeated exposure to these tropes would be expected to alter viewer perceptions of what constitutes "appropriate" motivations for behavior of male versus female characters.

The fact that our study uncovered associations between motivation exemplars and the gender of the character exemplifying the motivation suggests the need to examine the effects of exposure to these associations in audiences. Previous research has demonstrated that exposure to narratives that associate specific *behaviors* with characters of only one gender can shape audiences' real-world perceptions of what constitutes appropriate gender roles (Kneeskern & Reeder, 2020). Guided by the MIME, we attempted to take a step back from previous research which examines narrative character *behaviors* (and how exposure to these behaviors may elicit effects in audiences), to instead focus on examining the depiction of narrative characters' *motivations* for behavior.

Whereas previous research was limited to examining the effects of exposure to observing specific behaviors that might be normatively deemed good or bad depending on the surrounding narrative context (e.g., sharing behavior, social exclusion behavior), research using the same MIME-based coding scheme as the present study allows for a theoretically-based examination of a comprehensive set of motivations for behavior, which do not change based on narrative context. In addition to providing a comprehensive framework through which to synthesize findings across children's media research broadly, a MIME-based approach is useful for examining the cognitive bases of gender stereotypes gleaned from media exposure specifically. Intuitive motivations are considered to be the building blocks of attitudes and value-judgements (Haidt, 2001). With this in mind, MIME reasoning might suggest that reinforcing – or dissipating – gender stereotypes gleaned from media exposure would require changing the narrative cues associated with the motivation exemplars to which children are repeatedly exposed. Thus, an approach rooted in describing the media-audience relationship in terms of the activation of intuitive motivations for behavior can be valuable for future researchers investigating gender stereotypical depictions across a range of other media and the effects of these depictions across the lifespan.

Notably, social cognitive theory and gender schema theory both maintain that repeatedly viewing gender stereotypes in media can influence how children understand the world, in addition to shaping their own gender identity (Bandura, 1977, 2002; Bem, 1981, 1983). As children look to media characters, especially those of the same gender, as role models (Scharrer et al., 2018), content that features same-gendered characters repeatedly associated with specific motivations for behavior can lead children to perceive the motivations of same-gendered characters as motivations

they should emphasize in their own lives. In the context of the present study, this might suggest that young viewers would be more likely to associate boys with motivations rooted in looking out for their own needs, and girls with forgoing their own needs in order to take care of others. More broadly, socially-educational content's focus on egoistic motivations in the aggregate might suggest that Common Sense Media's conception of what constitutes a positive role model in is rooted more in self-actualization (i.e., egoism) than necessarily providing benefit to other people (i.e., altruism).

Echoing many of the results of our main research question, our use of Common Sense Media's lists of socially educational television content provided a unique opportunity to examine motivational differences in content rated as socially educational for boys compared to content rated as such for girls. Content recommended for boys showed an overrepresentation of the authority and security motivations, whereas content rated as educational for girls featured an overrepresentation of care, fairness, autonomy, and relatedness. The MIME suggests that aggregate patterns of narrative cues depicting motivation exemplars can serve as an indicator of how society views these motivations (Eden et al., 2014; Tamborini et al., 2016a, b). Thus, the fact that our results reveal differences in the motivations most exemplified in television programming recommended for boy versus girl audiences offers insight into what motivations media creators, and especially Common Sense Media, might associate as 'appropriate' for boy versus girl audiences. Notably, despite Common Sense Media's attempts to recommend positive content for boys and girls alike, their recommendations appear to contain certain stereotypes, focusing on the importance of following authorities and being brave in content for boys, whereas focusing on compassion and relationships in content for girls (in addition to fairness and autonomy). Although this differential emphasis may not be inherenetly wrong or bad, given the MIME's contention that repeated exposure to motivational exemplars can increase the salience of those motivations in audiences, Common Sense's emphasis on different content for boys versus girls may point to the potential for audiences viewing this content to adopt different expectations about what is appropriate for boys versus girls, and reinforce gender stereotypes. Future work should investigate the extent to which young audiences consuming content recommended for boys would eventually value authority and security motivations comparatively more than audiences who viewed content recommended for girls, who would be expected to value care, fairness, autonomy, and relatedness more.

Finally, it is worth noting that in our sample of content, main characters were more likely to be female than male. This finding is in contrast to other research examining gender portrayals in children's media, which demonstrates that male characters appear far more often than female characters across a wide range of children's media (e.g., Aley & Hahn, 2020; McCabe et al., 2011). As content that continuously represents one gender more often than another is thought to communicate the proportion of social worth held by each gender (Weitzman et al., 1972), the fact that Common Sense Media was able to compile a list of content in which female characters are more equally represented alongside male characters is an encouraging step forward for parents and educators looking to provide their children media that more equally represent female and male characters.

Limitations and Directions for Future Research

Our study is not without limitations. First, and most critically, the exact criteria determining the process by which Common Sense Media labels shows to be "socially educational," and exactly who within the organization is labeling the shows as such, are unknown. Thus, the extent to which our sample is representative of the larger population of what might be considered broader socially educational programming is limited. Future researchers should attempt to overcome this limitation by asking representative samples of parents or caregivers to indicate what content they deem to be socially educational, and then replicating the present study by content-analyzing that programming. This type of research would allow for insight into socially educational content as it is understood by those selecting content for young audiences. Ultimately, findings from this research would add confidence to the present study's findings.

Second, although we sampled nearly 50 socially educational programs, our sample was comprised from lists of television programs recommended by just one organization, Common Sense Media. Future research should consider other sources of recommendations to create a more comprehensive sample of socially educational television programming, especially given that Common Sense Media does not clearly indicate their protocol for rating and recommending content. Although we chose Common Sense Media's recommendation lists as a sampling frame intentionally, exploration of media on other content recommendation sites may have gleaned different results. Future research should consider analyzing media on additional family and parent review sites such as *Plugged In*, *Kids In Mind*, or *The Dove Foundation*.

Third, 12 programs listed by Common Sense Media were not available for viewing on any streaming platform. Future research should attempt to investigate these programs to assess the extent to which the patterns observed in the present study are similar in these shows. Finally, the present study did not take into account the clarity of each motivation depiction in terms of the time delay between the motivation reveal and the resulting behavior. Given previous research

suggesting that children as old as eight years old can have difficulty recognizing motivations when they are not made immediately apparent (Collins, 1973), future work should attempt to investigate the clarity of motivation portrayals and the extent to which these depictions may impact what audiences interpret from content.

Practice Implications

Practically speaking, these results can be useful for parents and educators who are looking to rely on Common Sense's recommendations but are concerned about the messages that content might send to young viewers. Our results suggest that content portrayed on Common Sense Media may be starting to overcome gender representation issues, however, the motivations associated most often with male and female characters might appear to adhere, at least in part, to traditional gender stereotypes. It is also worth noting that despite its focus on presenting positive role models for children, the sample of content we used tended to emphasize motivations for behavior that would benefit oneself more than motivations that would benefit others. This suggests that what constitutes a positive role model in Common Sense's terms might be focused more on self-actualization than providing benefit to other people. As for content creators, our findings provide reasoning to include a more balanced representation of the behaviors of male and female characters. Having media role models that display a variety of behaviors would provide children examples of individuals who are free to express themselves outside of prescribed gender expectations.

Conclusion

The current study applied a coding scheme rooted in the model of intuitive motivation and exemplars (Tamborini, 2013) in order to examine the extent to which children's socially educational television associates specific intuitive motivations with characters of different genders. Our study revealed that children's media associates different moral motivations with male and female characters. These findings add to previous research illustrating the frequency of stereotypical gender role portrayals in children's media, including moral behaviors to the list of gender stereotype expectations, such as female characters are physically attractive (Hentges & Case, 2013) and male character are aggressive (Scharrer & Blackburn, 2018).

Although we were interested only in assessing character gender as a narrative cue, future research should attempt to investigate the effects of exposure to gendered motivation exemplars on young audiences' socialization from media content. Although speculative, we might expect findings that are similar to previous research's investigations on the effects of exposure to narrative behaviors, suggesting that observations of specific genders exemplifying specific motivations may lead young audiences to associate those motivations with those genders in real life. Future work should examine how consuming media portraying the gendering of motivations may influence audiences' perceptions regarding what motivations are "proper" for different genders.

Compliance with Ethical Standard

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