EMPIRICAL RESEARCH

The Leadership Stories Our Youth Are Told: Characterizations of Leadership Behaviors and Orientations in Popular Youth TV Shows

Shayna Maskell [1] · Graziella Pagliarulo McCarron[1] · Jessie Cannon[1] · Steven Zhou[1] · Stephen J. Zacarro[1] · Thalia R. Goldstein[1]

Abstract
Given the consistently high viewership of television (TV) by youth, the social, behavioral, developmental, and psychological impact of such viewing has been studied for decades. Yet, little research has focused on the connections between youth, the TV shows to which they are exposed, and the characterizations of leadership presented to them. This study examines the type of leadership behaviors and orientations presented through youth TV shows in the United States across a continuum of viewership age targets. Shows were selected through purposeful sampling from the most popular youth TV shows in the United States, and episodes were chosen based on synopsis, selecting for the greatest possibility of leadership scenarios. Researchers identified three shows for each viewer target age group and five episodes for each TV show, for a total of 75 episodes. The findings include the discovery that show-prescribed viewer target age group positively predicted leadership behavior such as direction-setting—i.e., gathering information, organizing information, sense-making, and forecasting. Additionally, as viewer target age range increased, shows presented with a decrease in communal leadership—characterized as caring, warm, trustworthy, empathetic, helpful, and/or friendly. Such findings suggest that the representations of leadership depicted in popular youth TV shows are transmitting potentially counterproductive messages to future leaders, deprioritizing crucial leadership elements.

Keywords Leadership · Television · Youth · Adolescent

Introduction

In 2017, U.S. children up to age eight spent nearly two hours daily watching television (TV), a number that remains unchanged since 2011 (Rideout, 2017). On average, youth aged eight to twelve watch an average of six hours per day and teens spend an average of nine hours per day watching TV (American Academy of Child and Adolescent Psychiatry, 2020). Given the consistently high viewership of TV by youth, the full-body impact of such viewing has been studied for decades (e.g., Lapierre & Rozendaal, 2019). Yet, despite the myriad relationships between youth TV-watching and developmental, physical, and intellectual outcomes, much of the literature on youth and TV focuses on parental monitoring (e.g., Gentile et al., 2014), advertising

(e.g., Dalton et al., 2017), and violence (e.g., Huesmann & Eron, 2013). However, a critical lifespan capacity—leadership (i.e., "a process whereby an individual influences a group of individuals to achieve a common goal"; Northouse, 2018, p. 7)—is largely missing from the literature on TV-related youth outcomes. This gap is concerning given the argument that leadership development happens across the lifespan and that particular attention should be paid to sensitive periods of development—e.g., youth (Murphy & Johnson, 2011). Given trends on youth TV-watching, the impact of TV on a range of socio-emotional and intellectual outcomes, the saliency of exposure to leadership experiences in early life, and the dearth of literature exploring TV's intersection with early leadership development, the aim of this study was to examine the characterizations of leadership behaviors and orientations in popular youth TV shows.

Youth and TV Viewership

Almost half (i.e., 47%) of all children and 49% of children aged six to eleven watch more than the recommended limit

✉ Shayna Maskell
   smaskell@gmu.edu

1   George Mason University, Fairfax, VA, USA

Springer

of two hours of TV a day (Sisson et al., 2009). TV is also popular with tweens (i.e., youth 9-12 years of age), 62% of whom said they watch every day, and teens (i.e., youth 13–17 years of age), 58% of whom watch daily (Rideout, 2017). Moreover, a larger proportion of U.S. families now have subscription TV and video services (e.g., Netflix) (i.e., 72%) than cable subscriptions (65%), allowing for a multitude of viewing platforms (Rideout, 2017). Despite some contradictory findings, TV has been and remains integral and influential in youth's lives, acting as a significant form of informal education (Fisch, 2014). That influence has been found to be both negative and positive. From a negative lens, TV-watching is associated with eating disorders (Rodgers et al., 2019), negative weight bias (Karsay & Schmuck, 2019), higher rates of teenage pregnancy (Chandra et al., 2008), and more aggressive behavior (Khurana et al., 2019), as well as changes to the cortices of the brain and corollary poorer cognitive performance (Paulus et al., 2019). Yet, TV-watching has also shown to have benefits—it can contribute to health education (Folkvord et al., 2020), teach about racial and ethnic inclusivity (Mares, 2019), and bolster pride in sexual identity (Gomillion & Giuliano, 2011).

While affirming the influence of TV-watching on youth is important, perhaps more important is understanding the specific ages during which TV exposure can be most impactful *and* how early exposure (e.g., toddler years) affects adolescent behavior. Age has been positively correlated with a more sophisticated understanding of advertising, suggesting that how younger viewers ingest, understand, and evaluate TV messages is different from how older view ers do so (Uribe et al., 2017). Similarly, age has been correlated with longitudinal repercussions; each additional hour of TV watching at age two significantly predicts poorer eating habits, obesity, and less school engagement at age 13. TV-viewing at a very young age is associated with the lifestyle habits of those same children in adolescence and, thus, may have a lifespan impact (Simonato et al., 2018).

Early Leadership Development

Given that children may learn about life and social roles through patterns of behavior seen on TV (Harms & Spain, 2016), and adolescents seek reinforcement of social norms from TV (Thompson-Hayes et al., 2009), messaging of leadership schemas may work similarly. Specifically, such messages may include leadership models, which help shape children's schemas of leaders by associating "good" leadership with observed traits of successful leaders (Gierzynski & Yates, 2016). Leadership schemas may be informed by both leadership behaviors and leadership orientations. While leadership has been defined in many different ways, for the purpose of this study, leadership is

defined as leading others toward the accomplishment of a collective goal (Northouse, 2018). Thus, to be a leader one must be leading and in relationship with others, not just be acting independently toward a goal. Leadership behaviors include direction-setting, task management, and people management (Zaccaro et al., 2001), while leadership orientations speak to agentic and/or communal (Abele et al., 2016) leadership practice. "Agentic" can be characterized as assertive, efficient, clever, persistent, and self-confident, while "communal" can be characterized as caring, warm, trustworthy, empathetic, helpful, and/or friendly. An important element to note here is that an individual can display *both* agentic and communal orientations (Abele et al., 2016).

Leadership behaviors and orientations may indeed be informed in early youth. One theoretical model of early influences on leadership development posits a framework for leadership development throughout the full lifespan, focusing on "seeds of leadership" that are sown in early childhood. Among these "seeds" are youth experiences that may influence individuals' leadership capacity in adulthood, such as coordinating teams in school, student government, and public speaking. Contextual factors such as societal expectations of leaders affect how early experiences influence leadership identity development (Murphy & Johnson, 2011). Societal expectations of leaders can be transmitted through television (Harms & Spain, 2016), as well as youth engagement with sports, community service, extracurriculars, and positive parenting, which has been found to predict leader self-efficacy (McCarron et al., in press 2021). Further, youth community service, extracurriculars, peer tutoring and perceptions of parental quality time and proactive parenting predicted leader emergence, asserting that students' leadership development is indeed influenced by myriad systems across the lifespan (McCarron et al., in press 2021).

Leadership abilities are changeable, evolving over a person's lifetime as a reflection of their own specific development and personal experiences (Zaccaro et al., 2018). Indeed, leadership can be understood as a self-reinforcing process: practicing leadership improves one's leader efficacy, and, as leader efficacy grows, individuals are more likely to engage with leadership responsibilities (Hannah, 2006). Thus, the logic suggests that individuals who practice leadership skills earlier in life will likely build their leadership confidence, will be prompted to seek out leadership-building experiences, and will further develop their leadership abilities overall.

Youth TV-Viewing and Leadership Perspectives

Literature exploring the intersection of leadership and youth TV-watching is still nascent, but a few studies have broached the topic. For example, storytelling in children's TV shows
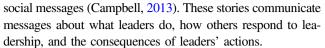
has been found to both shape attitudes toward leaders and provide role models for effective leadership and followership practice, both in positive and negative contexts (Harms & Spain, 2016). Another study examined storytelling through the concept of the "teen female leader" in specific TV programming and the larger message about the "teen" experience being one of learning, experimenting, and flexibility (Schubart, 2018). Investigating TV heroes and heroines in a different context, 10–13-year-old youth has been found to appreciate character charisma and the concept of warrior hero or leader through the framework of political leadership/civic engagement orientations (D'Auria-Tardeli, 2021)

Yet, while the studies noted above expand the literature regarding youth TV-watching and leadership, the data has yet to catch up to or coalesce with the emerging body of research that focuses on understanding leadership behavior of children starting as early as preschool (e.g., Recchia, 2011), elementary school (e.g., Li et al., 2007), and throughout middle and high school (Lansford et al., 2009; Murphy & Johnson, 2011). This gap in the youth TV-watching literature is especially poignant given what is known about leadership development as a lifelong process (Murphy & Johnson, 2011; Yeager & Callahan, 2016). Leadership capacities, which indicate how a leader will likely respond in a leadership situation, have been theorized as changing, able to transform and mature (Zaccaro et al., 2018). This includes the ways in which young people develop a system of beliefs about the behaviors and characteristics of effective leadership—leadership prototypes (Phillips & Lord, 1982)—the personal histories and experiences of young people that influence personal growth and development (Gardner et al., 2005), as well as interactions with leadership that aid in the development of how people view themselves as leaders (Day et al., 2009). Prior findings suggest these experiences and interactions include observation of more experienced leaders (Ghosh et al., 2013; Lester et al., 2011), primarily those who displayed the behaviors that young people believed would help them be successful leaders (Yeager & Callahan, 2016). Given this centrality of observation, additional work must be done to explore what youth are observing on TV with regard to leadership.

Social Learning Theory

Given the richness in emerging research on youth leadership development and the major force that is TV, this study aimed to join these lines of inquiry. Using Bandura's (1971) principle of social learning theory to help explain the ways in which leadership behaviors are messaged to and encoded into young viewers, this study contributes to exploring how leadership stories (Zaccaro, 2018), messaged through popular TV shows, may add to the development of leader identity. Stories become a socialized context for social learning, teaching listeners traits, behaviors, moral dilemmas and judgment, and

social messages (Campbell, 2013). These stories communicate messages about what leaders do, how others respond to leadership, and the consequences of leaders' actions.

Per the framework of social learning theory (Bandura, 1971), TV shows are a crucial way that youth learn social values and mores, especially given that children learn through observation and the corresponding consequences of others' actions, including of media figures (Aladé, 2018). The process of modeling others' behavior includes four components: attention, retention, motoric reproduction, and motivation. In this first component, children must recognize and differentiate the features of the model's behavior (Bandura, 1969); television has been found to be an especially compelling medium to capture children's atte ntion (Grusec, 1992), and is the most engaged medium of youth of all age groups (Rideout, 2017). Secondly, children must retain the behavior in their memory, either through images or words (Grusec, 1992). Thirdly, children must be able to reproduce the behavior, indicating that access to leadership situations - including those at school and during play - are necessary in this process. And finally, individuals must be motivated to reproduce the models' behavior (Bandura, 1969). However, research indicates that the model's behavior does not need to have positive consequences to be reinforced (Nabi & Clark, 2008) and that children can interpret behaviors with no consequences as being rewarded (Vossen et al., 2014).

Current Study

Given the dearth of literature exploring the intersection of early leadership development and television, the purpose of this study was to examine leadership representations in youth shows by unpacking the construction of leadership behaviors and orientations aimed at youth. This was done by studying representations of leadership behavior and leadership orientation across the viewer age range recommended by television show producers (Research Question 1), as well as across television show production formats (Research Question 2).

Methods

Research Design

This study employed content analysis (Stemler, 2000) predicated on a coding scheme developed through study of the leadership, media, and child development literature. This method allowed for a systematic investigation based on specific characteristics of messages about leadership (Holsti, 1969). As a disclosure, the researchers originally

Table 1 Key characteristics for youth television shows analyzed

Show Platform	Show Title	Targeted Viewer Age (years)	Episode Length	Episode Format
ABC	Pretty Little Liars	12–15	45 min	Live Action
Cartoon Network	The Amazing World of Gumball	9–11	12 min	Animated
CW	Flash	12–15	45 min	Live Action
	Riverdale	16–18	45 min	Live Action
Disney	Miraculous: Tales of Ladybug and Cat Noir	12–15	22 min	Animated
	Pokemon	6–8	22 min	Animated
	Phineas and Ferb	6–8	22–45 min	Animated
	Star Wars Rebels	9–11	22 min	Animated
	Star vs. the Forces of Evil	9–11	22 min	Animated
Disney Jr.	Sofia the First	6–8	22 min	Animated
HBO	Sesame Street	2–5	25–50 min	Live Action
Netflix	Chilling Adventures of Sabrina	16–18	60 min	Live Action
	On My Block	16–18	30 min	Live Action
Nick Jr.	Dora the Explorer	2–5	26–45 min	Animated
	Paw Patrol	2–5	20–44 min	Animated

wished to test for network differences (e.g., Cartoon Network vs. HBO) in leadership representations as a third research question. However, the analyses led to few if any significant results, and due to the multi-category nature of the network construct (i.e., seven different networks in the dataset), some networks had very small sample sizes at the show-level (e.g., HBO only had one show), thus precluding meaningful interpretation of these findings. The following results only focus on the two main research questions regarding age and format.

Sample of Youth TV Shows Selected

Shows were selected using purposeful sampling from the most popular youth TV shows in the U.S. as reported by Parrot Analytics (2018). Episodes were chosen based on synopsis, selecting for the greatest possibility of leadership scenarios (Hamlen & Imbesi, 2019), as well as range in platform, length, and production format. Researchers identified three shows for each viewer target age group and five episodes for each TV show, for a total of 75 episodes. The number of episodes per TV show was chosen in order to offer a fuller narrative arc; when available, episodes were chosen from three different seasons of the show, allowing for a more comprehensive context of and for representation of leadership. The use of three different TV shows from each age range allowed for a more inclusive sample of popular shows. Both the number of episodes and the number of television shows chosen per age range was consistent with current

scholarship practices (Monaghan, 2021). Table 1 notes the characteristics of the TV shows selected for this study, and a list of all episodes coded can be found in the Appendix.

Coding Procedures

Researchers with expertise in leadership, media, content analysis, and child development created a coding manual with operational definitions to guide coding of leadership behaviors and orientations for individual leadership moments (Hentges & Case, 2013) that emerged in each show episode. Leadership behaviors included direction-setting, task management, and people management (Zaccaro et al., 2001). Leadership orientations included agentic and communal (Abele et al., 2016). Leadership behaviors and orientations were embedded within leadership moments. Deeper explanation of each of these operational definitions will be explored later in this section in "Coding Categories."

A "moment" was defined as a time-bounded snapshot during the episode that occurred in one scene (England et al., 2011) *and* met the following criteria: the leader and follower(s) were working toward a common goal (Kozlowski & Bell, 2003), and the leader addressed the same follower or group of followers. Coders recorded leadership moments in a Qualtrics-based form, noting the moment's timestamp, describing what occurred in the moment, and recording which leadership behaviors and orientations were displayed by which characters. When coding leadership behaviors, coders coded the "dominant" behavior within that moment. This specificity allowed

moments to be matched up between coders to ensure sound analysis.

Coder Reliability

Six graduate student coders were paired (England et al., 2011), and each pair started coding 25 randomly assigned episodes *only* after each pair achieved at least 75% reliability on practice episodes. Each pair coded practice episodes over the course of three months and discussed coding criteria weekly with the research team, thus, refining definitions in the coding manual (England et al., 2011; Gerding & Signorielli, 2014). Both practice and actual coding occurred independently—i.e., coders did not discuss their coding with one another. Reliability was calculated by matching leadership moments for each pair of coders based on the timestamp and moment description. Moments not recorded by both raters were discarded. Within each moment, reliability was measured by the percent agreement on leadership behaviors and orientations. After coding was complete, any episodes with under 75% reliability were re-coded based on consensus discussions between coders. Of the 4085 total codes (817 moments times five behavioral codes per moment), 517 codes showed disagreement between the two graduate student coders (12.66%). For these 517 code discrepancies, two faculty subject matter experts reviewed each of them and achieved consensus.

Coding Categories

Coding categories included show- and leadership moment-level characteristics. With regard to *Show-Level Characteristics*, for each episode, coders noted the general show-level characteristics (see Table 1) from a predetermined drop-down list, which included show target viewer age group and production format. Target age group was predetermined based on the age range reported by the network and noted in the codebook. Target age range was assessed as an ordinal variable (1 = 2–5 yrs., 2 = 6–8 yrs., 3 = 9–11 yrs., 4 = 12–15 yrs., and 5 = 16–18 yrs.). The format for each show was predetermined using Parrot Analytics' (2018) guidance. Formats included live action, animated, live action/animated combination, and "other." No shows were coded as a combination or other.

With regard to *Leadership Moment-Level Characteristics*, leadership moments were coded for both leadership behaviors and leadership orientation. Leadership behaviors coded within each moment included direction-setting, task management, and people management, adapted from leadership behavior taxonomies created by Zaccaro et al. (2001). Coders noted which leaders displayed each of the behaviors identified in the moment. Direction-setting included acquiring situational awareness (e.g., gathering information, organizing information, sense-making, forecasting); planning (e.g., defining mission); and/or communicating plans to others (e.g., sense-giving). Task management included assigning roles and/or tasks and regulating team performance (e.g., giving constructive feedback for the purpose of stopping or changing a follower's behavior). Assigning roles and tasks was distinguished from direction-setting's "communicating plans to others." The former entailed an immediate action from followers; the latter entailed a verbal communication about an action that would or might occur in a later scene. People management included motivating the team (e.g., praising, encouraging or affirming followers); resolving conflict (e.g., verbally breaking up a fight between followers); and/or forming/developing the team (literal forming/developing and social/emotional development). Motivating the team entailed giving positive feedback, distinguished from task management's "regulating team performance," which only included corrective (negative) feedback.

Coding for leadership orientation was informed by agentic-communal scale, to determine each leader's leadership orientation in each moment (Abele et al., 2016). The orientation was coded as either agentic, communal, or both—if both agentic and communal behaviors appeared dominant in the moment. An agentic behavior can be characterized as assertive, efficient, clever, persistent, and self-confident, while a communal behavior can be characterized as caring, warm, trustworthy, empathetic, helpful, and/or friendly.

Data Analysis

The research team spent three months achieving reliability and 16 weeks coding before beginning analysis. Researchers focused on understanding variance in the three leader behaviors (i.e., direction-setting, task management, and people management) and two leader orientations (i.e., agentic and communal) across show-level and episode-level predictors. Due to the nested nature of the data (i.e., moments (Level 1) nested in episodes (Level 2) nested in shows (Level 3), and the dichotomous nature of each outcome variable (i.e., whether the moment exhibited direction-setting behavior), the study team opted to use a three-level multilevel logistic model (Sommet & Morselli, 2017). Table 2 outlines the coding categories and associated variables.

Separate models were run for each of the five outcome variables. In each model, the study team considered predictors at the show-level (Level 3) to include target age range (Research Question 1) and production format (Research Question 2). Researchers also considered episode number (e.g., the 45th episode of the show across all seasons) as an episode-level (Level 2) control variable, given

show characters may develop over time and change their leadership behaviors (O'Meara, 2015). Due to model convergence challenges using the raw episode number, the variable was transformed to range from 0 to 1 by dividing the episode number by the total number of episodes released for each show as of the date this study began (April 2019).

Results

Preliminary Analyses

Table 3 depicts the correlation matrix for all variables analyzed in this study. Researchers noted large intercorrelations between some of the predictors, thus, precluding incorporation of all three predictors simultaneously into the multilevel model (Shieh & Fouladi, 2003). Moreover, traditional methods of handling multicollinearity (e.g., elastic net regression, Curtis & Ghosh, 2011; or principal components analysis, Lafi & Kaneene, 1992) were deemed inappropriate due to the observed (and not latent) nature of the variables and the lack of a unified nomological network among predictors. Thus, each predictor was analyzed separately. Similarly, the intercorrelations among the five

dependent variables (e.g., $r = -0.87$ between agentic and communal, $r = -0.36$ between task and people) countered the use of a model with multivariate outcomes (e.g., MANOVA). Moreover, while multivariate logistic models exist, the study team could not find an established three-level multilevel logistic multivariate model procedure, and the creation of one was outside this study's bounds. Thus, researchers proceeded to primary analyses by analyzing each outcome variable separately and each predictor separately. In doing so, readers are cautioned to interpret the findings carefully as the intercorrelations (e.g., especially $r = 0.83$ between age range and format, such that live-action shows were far more likely among older age groups) may be the cause of some significant findings. Note that all analyses were conducted in the R computing software using the *lme4* package (Bates et al., 2015) with the *bobyqa* optimizer to aid in convergence (Bauer & Curran, 2020).

Predicting leader behaviors: direction-setting

The first set of models used target age range and format as predictors of direction-setting behavior. Researchers began by computing an empty model of direction-setting behavior with no predictors, to assess the Intraclass Correlation Coefficient (ICC) levels and determine the degree to which direction-setting varied across levels. Results showed ICC values of 0.90 at Level 1 (leadership moment level), 0.05 at Level 2 (episode level), and 0.05 at Level 3 (show level). This suggests minimal levels of covariance at the episode- and show-level, which indicates that the multilevel model should not produce drastically different results than a one-level logistic regression (Sommet & Morselli, 2017). Nevertheless, the study team proceeded with the multilevel model for the sake of being thorough.

Next, the Level 2 variable of episode number was added, transformed into a percentage (see Methods section above) and grand-mean-centered (because researchers were not interested in using it to predict episode-level differences; Sommet & Morselli, 2017). Fixed effects showed a non-significant effect of episode number ($B = -0.04$, $p = 0.93$), and a chi-square test showed non-significant improvement in model fit from the empty model to the model with

Table 2 Coding categories and associated study variables

Variable Type	Coding Category
Independent Variables	Show-Level Codes
	Show Format
	Show Target Age Range
	Episode-Level Codes
	Episode Length
	Episode Season
Dependent Variables	Leadership Moment-Level Codes
	Leadership Behavior
	Direction-Setting
	Task Management
	People Management
	Leadership Orientation
	Agentic
	Communal

Table 3 Correlation matrix of study variables

	Age	Format	Direction	Task	People	Agentic	Communal
Age	1.00						
Format	0.82***	1.00					
Direction	0.11**	0.17***	1.00				
Task	−0.04	−0.08*	−0.38***	1.00			
People	−0.08*	−0.01	−0.16***	−0.36***	1.00		
Agentic	0.03	−0.02	0.23***	0.41***	−0.69***	1.00	
Communal	−0.09*	−0.01	−0.21***	−0.34***	0.78***	−0.87***	1.00

$*p < 0.05$, $**p < 0.01$, $***p < 0.001$

Table 4 Summary of results for predicting direction-setting behavior

Predictor	Fixed effects					Comparison to empty model		
	B	SE	p value	OR	95% CI	χ^2	df	p value
Age	0.15	0.07	0.04	1.16	[1.01, 1.33]	4.12	1	0.04
Format	0.78	0.21	0.00	2.17	[1.45, 3.30]	13.05	1	0.00

Table 5 Summary of results for predicting task-management behavior

Predictor	Fixed effects					Comparison to empty model		
	B	SE	p value	OR	95% CI	χ^2	df	p value
Age	−0.10	0.08	0.21	0.91	[0.77, 1.06]	1.55	1	0.21
Format	−0.45	0.24	0.06	0.64	[0.40, 1.02]	3.57	1	0.06

Table 6 Summary of results for predicting people-management behavior

Predictor	Fixed effects					Comparison to empty model		
	B	SE	p value	OR	95% CI	χ^2	df	p value
Age	−0.15	0.08	0.09	0.87	[0.73, 1.02]	2.90	1	0.09
Format	0.01	0.27	0.97	1.01	[0.59, 1.73]	0.00	1	0.97

episode number ($\chi^2(1) = 0.01$, $p = 0.93$). Thus, the study team proceeded to test for each of the predictors separately without including episode number.

For Research Question 1, analysis showed that target age range was a significant predictor of direction-setting behavior ($B = 0.15$, $p = 0.04$), with the chi-square test showing significant improvement in model fit from the empty model ($\chi^2(1) = 4.12$, $p = 0.04$). To aid in interpretation, the parameter estimate of target age range was converted into an odds ratio: OR = 1.16, 95% CI = [1.01, 1.33]. Thus, for each incremental increase in target age range (2-5 yrs., 6-8 yrs., 9-11 yrs., 12-15 yrs., 16-18 yrs.), the odds of a moment depicting direction-setting behavior increased by 16%.

For Research Question 2, testing format as a predictor, researchers first re-computed the empty model, excluding one show (Sesame Street) that could not be classified into either live-action or animated format. The empty model did not show notable differences in ICC (Level 1 = 0.90, Level 2 = 0.06, Level 3 = 0.04). Format was a significant predictor ($B = 0.78$, $p < 0.01$), with the chi-square test showing significant improvement in model fit ($\chi^2(1) = 13.05$, $p < 0.01$). Converted into odds ratio: OR = 2.17, 95% CI = [1.45, 3.30]. Thus, the odds of leadership moments depicting direction-setting behaviors in live-action shows were 2.17 times that of the odds of leadership moments depicting direction-setting behaviors in animated shows (see Table 4). However, the reader should

be reminded that target age range and format were highly correlated ($r = 0.83$), which limits the practical significance of this finding.

Predicting leader behaviors: task management and people management

The same procedure was repeated for testing task management behavior as the outcome. The empty model showed limited covariance at Levels 2 and 3 (ICC = 0.88, 0.08, and 0.04 respectively), and episode number was not a significant Level 2 predictor ($\chi^2(1) = 0.11$, $p = 0.74$). For Research Question 1, target age group was not a significant Level 3 predictor ($\chi^2(1) = 1.55$, $p = 0.21$). Finally, for Research Question 2, format was not a significant predictor ($\chi^2(1) = 3.57$, $p = 0.06$). For this final model, the *bobyqa* optimizer had to be removed due to convergence issues (Table 5).

Researchers repeated the procedure again to test for people management behavior as the outcome. The empty model once again showed limited covariance at Levels 2 and 3 (ICC = 0.87, 0.07, and 0.06 respectively), and episode number once again was not significant ($\chi^2(1) = 0.66$, $p = 0.42$). For Research Question 1, target age group was not a significant Level 3 predictor ($\chi^2(1) = 2.90$, $p = 0.09$). For Research Question 2, format also was not a significant Level 3 predictor ($\chi^2(1) < 0.01$, $p = 0.97$). These results are noted in Table 6 below.

Table 7 Summary of results for predicting agentic orientation

Predictor	Fixed effects					Comparison to empty model		
	B	SE	p value	OR	95% CI	χ^2	df	p value
Age	0.06	0.09	0.49	1.06	[0.89, 1.26]	0.47	1	0.50
Format	−0.12	0.26	0.63	0.88	[0.53, 1.48]	0.23	1	0.63

Table 8 Summary of results for predicting communal orientation

Predictor	Fixed effects					Comparison to empty model		
	B	SE	p value	OR	95% CI	χ^2	df	p value
Age	−0.17	0.08	0.04	0.84	[0.71, 0.99]	4.02	1	0.05
Format	−0.05	0.26	0.85	0.95	[0.57, 1.60]	0.04	1	0.85

Predicting leader orientations

Leader orientations (agentic/communal) were predicted using the same procedure described above. When predicting agentic orientation, the empty model showed limited covariance at Levels 2 and 3 (ICC = 0.90, 0.00, and 0.10 respectively), and episode was not a significant predictor ($\chi^2(1) = 2.04$, $p = 0.15$). For Research Question 1, age group was not a significant Level 3 predictor ($\chi^2(1) = 0.47$, $p = 0.50$), and for Research Question 2, neither was show production format ($\chi^2(1) = 0.23$, $p = 0.63$) (see Table 7).

Finally, when predicting communal orientation, the empty model once again showed limited covariance at Levels 2 and 3 (ICC = 0.89, 0.06, and 0.05 respectively), and episode number was not a significant predictor ($\chi^2(1) = 0.91$, $p = 0.34$). For Research Question 1, target age group was a significant Level 3 predictor ($B = -0.17$, $p = 0.04$, $\chi^2(1) = 4.02$, $p < 0.05$), such that as age group increased incrementally (e.g., from 2-5 years to 5-8 years), the odds of a moment depicting communal orientation decreased by 16% (OR = 0.84 [0.71, 0.99] (see Table 8). For Research Question 2, format was not a significant predictor ($\chi^2(1) = 0.04$, $p = 0.85$). For this final model, the *Nelder_Mead* optimizer was used due to convergence issues.

Sensitivity Analyses

As with any code-based study, subjective decisions must be made in the coding process to establish a set of common rules for all coders to follow. Although the researchers followed a strict coding process as described in the Methods section, one area of potential concern is the 12.66% disagreement in behavioral codes between the pairs of graduate student coders, which were resolved by consensus discussion between faculty subject matter experts. As a sensitivity analysis, the researchers re-ran all analyses using only the behavioral codes where there was

no disagreement between coders. This left us with a dataset of 505 leadership moments with five behavioral codes each.

Overall, the results were similar to the main results, thus supporting the robustness of our conclusions. When predicting direction-setting behavior, age was still significant (Research Question 1, $p = 0.02$), and format was still significant (Research Question 2, $p < 0.01$). When predicting task-oriented behavior, age was still non-significant (Research Question 1, $p = 0.87$), but format was significant (Research Question 2, $p = 0.04$ as opposed to 0.06). When predicting people-oriented behavior, age was still non-significant (Research Question 1, $p = 0.37$), and format was still non-significant (Research Question 2, $p = 0.36$). When predicting agentic behavior, age was still non-significant (Research Question 1, $p = 0.25$), and format was still non-significant (Research Question 2, $p = 0.56$). Finally, when predicting communal behavior, age was no longer significant (Research Question 1, $p = 0.31$ as opposed to 0.05), but format remained non-significant (Research Question 2, $p = 0.48$).

Discussion

Given the primacy of television in youth's life, the television-watching behaviors of young people have been thoroughly studied in the context of the social, behavioral, developmental, and psychological impacts. Research has shown how TV impacts a myriad of intellectual and socio-emotional outcomes in youth. Yet, little research has focused on the messaging about leadership transmitted through youth TV shows nor the connections between youth, the television media to which they are exposed, and the messaging about leadership practice and development. This study aimed to examine the characterizations of leadership in popular youth shows by measuring leadership behaviors presented in TV shows across different

networks, production formats, and recommended viewership age ranges.

Study findings indicated that show-recommended target age group for youth and adolescent viewers positively predicted direction-setting behavior—that is, as age range skewed older, direction-setting behaviors (i.e., acquiring situational awareness, planning, and/or communicating plans to others) were more likely to be represented in a show. Child development literature and its application to TV parallel this observation: As children age through critical developmental milestones, their capacity for ingesting and making sense of more complex interpersonal dynamics (such as direction-setting) also evolves (Murphy & Johnson, 2011; Te'eni-Harari et al., 2020). Moreover, direction-setting is often a dissemination of higher-level aspirations and occurs over a long period of time (Zaccaro & Banks, 2001), which, in the context of TV shows, may be a plot device to set up a larger and longer narrative arc. Such plot-based complexity, and its accompanying type of leadership, is more difficult for younger viewers to comprehend (Te'eni-Harari et al., 2020), which would affect the attention and retention components of Bandura's (1969) social learning theory. Yet, as viewers age and develop cognitive capacity for attention and retention, increased messaging related to direction-setting behaviors may inspire "motoric reproduction" (Bandura, 1969) of those behaviors in school and play environments, thus, crystallizing direction-setting in youth leadership practice. While the nature of direction-setting depicted across TV shows may range, the reproduction and practice of constructive leadership in childhood and adolescence is critical for lifetime capacity. It is during these formative years that leadership growth occurs and leadership behaviors can be modeled and reinforced, ultimately leading to successful leadership orientations in adulthood (Karagianni & Montgomery, 2018).

In addition to results relevant to direction-setting, findings also indicated that the show-recommended target age group negatively predicted communal leadership orientation: As children/youth viewer target age range skewed older, leadership moments presented in shows were less likely to be characterized as caring, warm, trustworthy, empathetic, helpful, and/or friendly. This finding is particularly compelling in that it runs counter to Murphy and Johnson's (2011) observations that leadership behaviors that occur in early childhood are still critical as youth develop and mature. While the authors were referring to tasks and not communal orientations, specifically, it is interesting to note that rather than "adding" to character complexity for older target ages, shows may be, intentionally or unintentionally, diminishing communal in favor of agentic qualities. Similar to the direction-setting observations above, this finding suggests that, in the context of social learning theory (Bandura, 1969), older viewers may reproduce (or act out) fewer communal leadership in their environments. The seemingly inverse relationship between direction-setting behaviors and communal orientation is noteworthy: This study shows that, as target viewer age grows, direction-setting behaviors *increase* while communal leadership representations *decrease*. Although direction-setting behaviors do not *require* agentic traits, there is certainly a strong known relationship between agentic traits (e.g., self-efficacy; see Hannah, 2006) and direction-setting (e.g., Eagly & Johannesen-Schmidt, 2001). This relationship does prompt speculation about the types of messages youth are receiving from TV shows and if leadership elements such as care, warmth, trustworthiness, and empathy are being deprioritized.

Implications

Current findings imply that the representations of leadership depicted in popular youth TV shows are transmitting potentially counterproductive messages to future leaders. The forms of leadership that school and extracurricular programs often emphasize for youth are surprisingly the ones that receive less airtime in shows aimed at older viewers. This study's findings suggest that as youth age, age-tailored/age-recommended representations of leadership on TV reinforce the construction of a "leader" as both less communal and more direction-setting. However, as one evolution of leadership identity model posits, as youth leaders progress to more advanced levels, their understanding of leadership becomes *more* communal, with an increased focus on serving others and the community (Komives et al., 2005). Indeed, educational programs and research on youth leadership often emphasize the importance of service leadership (Meyer & Rinn, 2021). Thus, these shows may be contradicting the types of messages about leadership behaviors that are most desired for youth leadership development. Further, this lack of diversity in representation of leadership behaviors can lead to a lack of identification with depicted leaders (Cohen, 2001) or wishful identification (i.e., wanting to be like a media figure; Hoffner & Buchanan, 2005), and it can reinforce power imbalances and models of stereotypes by valuing certain qualities and characteristics. In this way, representation on TV acts as a surrogate for other societal social forces and messaging (Harwood & Anderson, 2002).

Limitations and Future Directions

While this study offered a new perspective on the representation of leadership behaviors and orientations in youth TV shows, several major limitations emerged. The first limitation concerns the identity of the viewers. Particularly in youth viewership, content is mediated not only by environmental contexts, including parents, peers, school, and religious figures, but also by individual differences, such as one's own age, race, or gender. This study is limited

by its focus solely on how leadership behaviors are transmitted, not received by the viewers. Although viewers' identities likely impact the way content is received, the complexity of this issue precludes the measurement of the interaction of identity with content reception in the current study. First, the "targeted viewer age"—as determined by showrunners—may not necessarily reflect the actual age of viewers—e.g., young children are often watching shows intended for older audiences (or vice versa). Secondly, recent research on gender and imitation behavior indicated that children imitated same-gender models more, but only when gender norms were made salient. When gender norms were not emphasized, the children's level of imitation was not significantly different based on the gender of the models (Wang, 2020). Given that the TV shows included in our analyses may or may not contain gender-norm cues, fully addressing this topic would not have been possible. Future research could investigate the influence of environment or individual difference variables such as gender and race on reception of leadership behaviors in media.

A second limitation is the source of media. This study did not include social media platforms such as YouTube, Instagram or TikTok, which are widely viewed by youth. While these sources of media may represent a significant source of social learning, due to the story arc format, TV is a context where characters can display leadership behavior more readily. The story arc typically includes scenes where characters encounter a challenge or a problem to solve, then shows how the characters resolve it (Boyd et al., 2020). The leadership behaviors of situation awareness, planning, problem-solving, etc. align with the narrative framework of TV shows. Videos posted by influencers on other platforms such as YouTube or TikTok, on the other hand, tend to be shorter in length (Wang, 2020), thus less likely to involve planning and problem-solving in the same type of narrative arc. In addition, these social media influencers often work alone. The leadership content coding in this study depended on the presence of followers, given the working definition of leadership in this paper. Future research could explore the transmission of leadership behaviors through other media platforms.

Additionally, this study was not able to address all forms of leadership behavior, such as ethical behavior or moral reasoning, as it was beyond the scope of the current study. Given the importance of ethical role models in social media for influencing youth moral development (Lee & Horsley, 2017), future research could consider the extent to which youth TV shows communicate ethical or unethical forms of leadership.

Finally, it must be underscored that leadership moments that were recorded (i.e., "noticed") by only one of two paired coders were discarded from analysis, thus, shrinking the analytical landscape. Lastly, the variables of "target age range" and "format" were highly correlated ($r = 0.83$), and, thus, the practical significance of production format as a predictor of direction-setting in leadership moments should be interrogated in future studies.

Conclusion

Given the critical importance of leadership development during the sensitive periods of childhood and adolescence to life-long outcomes (Karagianni & Montgomery, 2018; Murphy & Johnson, 2011), the purpose of this study was to examine leadership representations in youth TV shows in order to unpack the messaging about leadership aimed at youth. Findings pointed to the role of TV as a transmitter of select leadership practice norms and offered insight into the types of messages young people may be receiving about what leadership looks like, specifically that for older age ranges, direction-setting leadership behavior becomes more prevalent and communal leadership behavior becomes less prevalent. Findings on communal behavior contradict socially desired messages for youth leadership development, highlighting the need to consider critically the role TV may play in youth development. Leadership development is a lifelong process (Yeager & Callahan, 2016) and this study can contribute to understanding the ways in which television may shape adult leadership identities, including leadership capacities (Zaccaro et al., 2018) and leadership prototypes (Phillips & Lord, 1982). Hopefully, this study opens the door to exploring the intersection of youth TV-watching and leadership development more widely and offers fodder for deeper conversation, scholarship, and practice aimed at supporting youth development across the lifespan.

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

Ethical Approval Ethics approval was not required for this study.

Informed Consent No human participants were involved in this study; thus, no consent was required.

Publisher's note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Appendix Complete List of All Episodes Coded by the Content Analysis

Show Title	Episode Title
Chilling Adventures of Sabrina	Doctor Cerberus House of Horror
	October Country
	The Burial
	The Missionaries
	The Witching Hour
Dora the Explorer	Baby Jaguars Roar
	Benny the Castaway
	Boots Banana Wish
	Dora Saves King Unicornio
	Dora's Great Roller Skate Adventure
Flash	Attack on Central City
	Potential Energy
	Rogue Air
	Seeing Red
	When Harry Met Harry
Miraculous: Tales of Lady Bug and Cat Noir	Chameleon
	Despair Bear
	Gamer
	Oni Chan
	Style Queen: The Queen's Battle
On My Block	Chapter Four
	Chapter Fourteen
	Chapter Nine
	Chapter Six
	Chapter Twenty
Paw Patrol	Mighty Pups the Movie
	Pups in a Jam
	Pups Save a Baby Octopus

Table (continued)

Show Title	Episode Title
	Ultimate Rescue Pups Save the Mountain Climbers
	Ultimate Rescue Pups Save the Tigers
Phineas and Ferb	Mission Marvel
	Monster from the Id Gi Ants
	OWCA Files Parts 1 and 2
	Secret of Success Doof Side of the Moon
	The Mom Attractor Cranius Maximus
Pokemon	A Mission of Ultra Urgency
	A Stealthy Challenge
	Kindergarten Chaos
	Lillies Egg Xhilarating Challenge
	The Legend of the Ninja Hero
Pretty Little Liars	Do Not Disturb
	Hold Your Piece
	Hot Water
	No One Here Can Love or Understand Me
	The Guilty Girls Handbook
Riverdale	Judgment Night
	No Exit
	Prom Night
	Silent Night Deadly Night
	The Outsiders
Sesame Street	Abby Schools in Cool
	Elmo's Sweet Ride
	Hair Training
	So You Think You Can Choreograph
	The Best Friend Band
Sofia the First	A Tale of Two Teams
	Princess Adventure Club
	The Elf Situation
	The Mystic Isles: The Princess and the Protector
	The Princess Prodigy

Table (continued)

Show Title	Episode Title
Star v. the Forces of Evil	Curse of the Blood Moon
	Raid the Cave Trickstar
	Return to Mewni Moon the Undaunted
	Star Comes to Earth Party with a Pony
	The Knight Shift
	Queen Napped
Star Wars Rebel	A Fools Hope
	In the Name of the Rebellion Part 1
	Relics of the Old Republic
	Vision of Hope
	Zero Hour Part One
The Amazing World of Gumball	The Burden
	The Candidate
	The Ollie
	The Pest
	The Sweaters

References

Abele, A. E., Hauke, N., Peters, K., Louvet, E., Szymkow, A., & Duan, Y. (2016). Facets of the fundamental content dimensions: agency with competence and assertiveness—Communion with warmth and morality. *Frontiers in Psychology*, 7(1810), 1–17. https://doi.org/10.3389/fpsyg.2016.01810.

Aladé, F. (2018). Character portrayals in STEM-focused educational television shows and their impact on children's attitudes towards STEM [Doctoral dissertation, Northwestern University]. ProQuest Dissertations Publishing.

American Academy of Child and Adolescent Psychiatry. (2020). Screen time and children. https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/Children-And-Watching-TV-054.aspx.

Bandura, A. (1969). Social-learning theory of identificatory processes. In D. A. Goslin (Ed.), Handbook of socialization theory and research (pp. 213–262). Rand McNally.

Bandura, A. (1971). Psychological modeling: conflicting theories. Aldine Atherton.

Bates, D., Maechler, M., Bolker, B., & Walker, S. (2015). Fitting linear mixed-effects models using lme4. *Journal of Statistical Software*, 67(1), 1–48. https://doi.org/10.18637/jss.v067.i01.

Bauer, D. J., & Curran, P. J. (2020). Multilevel modeling: R demonstration notes. Curran-Bauer Analytics. www.curranbauer.org.

Brescoll, V. L., & Uhlmann, E. L. (2008). Can an angry woman get ahead? Status conferral, gender, and expression of emotion in the workplace. *Psychological Science, 19*(3), 268–275. https://doi.org/10.1111/j.1467-9280.2008.02079.x\.

Boyd, R. L., Blackburn, K. G. & Pennebaker, J. W. (2020). The narrative arc: Revealing core narrative structures through text analysis. *Science advances*, 6(32), eaba2196.

Campbell, K. D. (2013). Mythology as the original framework in the development of leadership principles. *Journal of Leadership Studies*, 7(2), 48–54. https://doi.org/10.1002/jls.21290.

Chandra, A., Martino, S. C., Collins, R. L., Elliott, M. N., Berry, S. H., Kanouse, D. E., & Miu, A. (2008). Does watching sex on television predict teen pregnancy? Findings from a national longitudinal survey of youth. *Pediatrics*, 122(5), 1047–1054. https://doi.org/10.1542/peds.2007-3066.

Cohen, J. (2001). Defining identification: a theoretical look at the identification of audiences with media characters. *Mass Communication & Society*, 4(3), 245–264. https://doi.org/10.1207/S15327825MCS0403_01.

Curtis, S. M., & Ghosh, S. K. (2011). A Bayesian approach to multicollinearity and the simultaneous selection and clustering of predictors in linear regression. *Journal of Statistical Theory and Practice*, 5(4), 715–735. https://doi.org/10.1080/15598608.2011.10483741.

Dalton, M. A., Longacre, M. R., Drake, K. M., Cleveland, L. P., Harris, J. L., Hendricks, K., & Titus, L. J. (2017). Child-targeted fast-food television advertising exposure is linked with fast-food intake among pre-school children. *Public Health Nutrition*, 20(9), 1548–1556. https://doi.org/10.1017/S1368980117000520.

D'Auria-Tardeli, D. (2021). The notion of leadership and civic engagement in adolescents. *Open Access Library Journal*, 8, 1–15. https://doi.org/10.4236/oalib.1107646.

Day, D. V., & Harrison, M. M. (2007). A multilevel, identity-based approach to leadership development. *Human Resource Management Review*, 17(4), 360–373. https://doi.org/10.1016/j.hrmr.2007.08.007.

Day, D., Harrison, M., Halpin, S. (2009). An integrative approach to leader development: connecting adult development, identity, and expertise. Routledge.

Eagly, A. H., & Johannesen-Schmidt, M. C. (2001). The leadership styles of women and men. *Journal of Social Issues*, 57(4), 781–797.

Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review*, 109(3), 573–598. https://doi.org/10.1037//0033-295X.109.3.573.

England, D. E., Descartes, L., & Collier-Meek, M. A. (2011). Gender role portrayal and the Disney princesses. *Sex Roles*, 64(7), 555–567. https://doi.org/10.1007/s11199-011-9930-7.

Fisch, S. M. (2014). Children's learning from educational television: Sesame Street and beyond. Routledge.

Fiske, J. (1992). Cultural studies and the culture of everyday life. In C. Nelson, P. A. Treichler, & L. Grossberg (Eds.), Cultural studies: an introduction (pp. 154–173). Routledge.

Folkvord, F., Anschütz, D., & Geurts, M. (2020). Watching TV cooking programs: effects on actual food intake among children. *Journal of Nutrition Education and Behavior*, 52(1), 3–9. https://doi.org/10.1016/j.jneb.2019.09.016.

Gardner, W., Avolio, B., Luthans, F., May, D., & Walumbwa, F. (2005). "Can you see the real me?" A self-based model of authentic leader and follower development. *The Leadership Quarterly*, 16, 343–372. https://doi.org/10.1016/j.leaqua.2005.03.003.

Gentile, D. A., Reimer, R. A., Nathanson, A. I., Walsh, D. A., & Eisenmann, J. C. (2014). Protective effects of parental monitoring of children's media use: a prospective study. *JAMA Pediatrics*, 168(5), 479–484. https://doi.org/10.1001/jamapediatrics.2014.146.

Gerding, A., & Signorielli, N. (2014). Gender roles in tween television programming: a content analysis of two genres. *Sex Roles*, 70(1-2), 43–56. https://doi.org/10.1007/s11199-013-0330-z.

Ghosh, R., Haynes, R. K., & Kram, K. E. (2013). Developmental networks at work: holding environments for leader development. *Career Development International*, 18(3), 232–256.

Gierzynski, A., & Yates, H. (2016). Fictional leaders, leadership stereotypes and evaluations of women in leadership positions [Paper presentation]. In Proceedings of 74th annual meeting of the Midwest Political Science Association, Chicago, IL . 7–10 April 2016. https://www.researchgate.net/profile/Anthony_Gierzynski.

Gomillion, S. C., & Giuliano, T. A. (2011). The influence of media role models on gay, lesbian, and bisexual identity. *Journal of Homosexuality*, 58(3), 330–354. https://doi.org/10.1080/00918369.2011.546729.

Grusek, J. E. (1992). Social learning theory and developmental psychology: the legacies of Robert Sears and Albert Bandura. *Developmental Psychology*, 28, 776–786.

Hall, S. (1980). Encoding/decoding. In S. Hall, D. Hobson, A. Lowe, & P. Willis (Eds.), Culture, media, language (pp. 61–95). Hutchinson.

Hall, S., & Du Gay, P. (Eds.). (1996). Questions of cultural identity. Sage.

Hamlen, K. R., & Imbesi, K. J. (2019). Role models in the media: a content analysis of preschool television programs in the US. *Journal of Children and Media*, 14(3), 1–22. https://doi.org/10.1080/17482798.2019.1689369.

Hannah, S. T. (2006). Agentic leadership efficacy: test of a new construct and model for development and performance. The University of Nebraska-Lincoln.

Harms, P. D., & Spain, S. M. (2016). Children's stories as a foundation for leadership schemas: more than meets the eye. In C. Peus, S. Braun, & B. Schyns (Eds.), Monographs in leadership and management: leadership Lessons from compelling contexts (Vol. 8, pp. 301–325). Emerald.

Harwood, J., & Anderson, K. (2002). The presence and portrayal of social groups on prime-time television. *Communication Reports*, 15(2), 81–97. https://doi.org/10.1080/08934210209367756.

Hentges, B., & Case, K. (2013). Gender representations on Disney Channel, Cartoon Network, and Nickelodeon broadcasts in the United States. *Journal of Children and Media*, 7(3), 319–333. https://doi.org/10.1080/17482798.2012.729150.

Hoffner, C., & Buchanan, M. (2005). Young adults' wishful identification with television characters: the role of perceived similarity and character attributes. *Media Psychology*, 7(4), 323–349. https://doi.org/10.1207/S1532785XMEP0704_2.

Holsti, O. R. (1969). Content analysis for the social sciences and humanities. Addison-Wesley.

Huesmann, L. R., & Eron, L. D. (2013). Television and the aggressive child: a cross-national comparison. Routledge.

Karagianni, D., & Montgomery, A. J. (2018). Developing leadership skills among adolescents and young adults: a review of leadership programmes. *International Journal of Adolescence and Youth*, 23(1), 86–98. https://doi.org/10.1080/02673843.2017.1292928.

Karsay, K., & Schmuck, D. (2019). "Weak, sad, and lazy fatties": adolescents' explicit and implicit weight bias following exposure to weight loss reality TV shows. *Media Psychology*, 22(1), 60–81. https://doi.org/10.1080/15213269.2017.1396903.

Kellner, D. (2011). Cultural studies, multiculturalism, and media culture. In G. Dines & J. M. Humez (Eds.), Gender, race, and class in media: a critical reader (3rd ed., pp. 7–18). Sage.

Khurana, A., Bleakley, A., Ellithorpe, M. E., Hennessy, M., Jamieson, P. E., & Weitz, I. (2019). Media violence exposure and aggression in adolescents: a risk and resilience perspective. *Aggressive Behavior*, 45(1), 70–81. https://doi.org/10.1002/ab.21798.

Komives, S. R., Owen, J. E., Longerbeam, S. D., Mainella, F. C., & Osteen, L. (2005). Developing a leadership identity: a grounded theory. *Journal of College Student Development*, 46(6), 593–611. https://doi.org/10.1353/csd.2005.0061.

Kozlowski, S. W. J., & Bell, B. S. (2003). Work groups and teams in organizations. In W. C. Borman, D. R. Ilgen, & R. Klimoski (Eds.), Handbook of psychology: industrial and organizational psychology (Vol. 12, pp. 333–375). Wiley.

Lafi, S. Q., & Kaneene, J. B. (1992). An explanation of the use of principal-components analysis to detect and correct for multicollinearity. *Preventive Veterinary Medicine*, 13(4), 261–275. https://doi.org/10.1016/0167-5877(92)90041-D.

Lansford, J. E., Costanzo, P. R., Grimes, C., Putallaz, M., Miller, S., & Malone, P. S. (2009). Social network centrality and leadership status: links with problem behaviors and tests of gender differences. *Merrill-Palmer Quarterly*, 55(1), 1–25. https://doi.org/10.1353/mpq.0.0014.

Lapierre, M. A., & Roosendaal, E. (2019). A cross-national study examining the role of executive function and emotion regulation in the relationship between children's television exposure and consumer behavior. *Journal of Youth and Adolescence*, 48(10), 1980–2004.

Lee, A. R., & Horsley, J. S. (2017). The role of social media on positive youth development: an analysis of 4-H Facebook page and 4-H'ers' positive development. *Children and Youth Services Review*, 77, 127–138.

Lester, P. B., Hannah, S. T., Harms, P. D., Vogelgesang, G. R., & Avolio, B. J. (2011). Mentoring impact on leader efficacy development: a field experiment. *Academy of Management Learning & Education*, 10(3), 409–429.

Li, Y., Anderson, R. C., Nguyen-Jahiel, K., Dong, T., Archodidou, A., Kim, I. H., Kuo, L. J., Clark, A. M., Wu, X., Jadallah, M., & Miller, B. (2007). Emergent leadership in children's discussion groups. *Cognition and Instruction*, 25(1), 1–2. https://doi.org/10.1080/07370000709336703.

Mares, M. L. (2019). Mostly positive: effects of reminding white teens about Latino and Asian American celebrities. Media Psychology, 1–29. https://doi.org/10.1080/15213269.2019.1637265.

McCarron, G. P., Zhou, S., Schierbeek, E., Campbell, A., & Muscente, K. K. (In Press). We're not working with a blank slate: Students' pre-college leadership activities and perceived parenting behavior as predictors of college-based leader emergence and leader self-efficacy. *Journal of Leadership Education*.

Murphy, S. E., & Johnson, S. K. (2011). The benefits of a long-lens approach to leader development: understanding the seeds of leadership. *The Leadership Quarterly*, 22(3), 459–470. https://doi.org/10.1016/j.leaqua.2011.04.004.

Meyer, M. S., & Rinn, A. N. (2021). Developing leadership talent in adolescents and emerging adults: a systematic review. Gifted Child Quarterly, 00169862211007556.

Monaghan, W. (2021). Post-gay television: LGBTQ representation and the negotiation of 'normal' in MTV's Faking It. *Media, Culture & Society*, 43(3), 428–443.

Nabi, R. L., & Clark, S. (2008). Exploring the limits of social cognitive theory: Why negatively reinforced behaviors on TV may be modeled anyway. *Journal of Communication*, 58(3), 407–427.

Northouse, P. (2018). Leadership theory and practice (8th ed.). Sage.

O'Meara, R. (2015). Changing the way we think about character change in episodic television series. *Journal of Screenwriting*, 6(2), 189–201. https://doi.org/10.1386/josc.6.2.189_1.

Parrot Analytics (2018). The global TV demand report 2018. https://insights.parrotanalytics.com/hubfs/Resources/whitepapers/Parrot%20Analytics%20-%20The%20Global%20TV%20Demand%20Report%202018.pdf.

Paulus, M. P., Squeglia, L. M., Bagot, K., Jacobus, J., Kuplicki, R., Breslin, F. J., Bodurka, J., Morris, A. S., Thompson, W. K., Bartsch, H., & Tapert, S. F. (2019). Screen media activity and brain structure in youth: evidence for diverse structural correlation networks from the ABCD study. *Neuroimage*, 185, 140–153. https://doi.org/10.1016/j.neuroimage.2018.10.040.

Phillips, J. S., & Lord, R. G. (1982). Schematic information processing and perceptions of leadership in problem-solving groups. *The Journal of Applied Psychology*, 67, 486–492.

Recchia, S. (2011). Preschool leaders in the early childhood classroom. In S. E. Murphy & R. Reichard (Eds.), Early development

and leadership: building the next generation of leaders (pp. 39–58). Routledge.

Rideout, V. (2017). The Common Sense census: media use by kids age zero to eight. Common Sense Media.

Rodgers, R. F., O'Flynn, J. L., & McLean, S. A. (2019). Media and eating disorders. The international encyclopedia of media literacy, 1–10. https://doi.org/10.1002/9781118978238.ieml0060.

Rosette, A. S., Koval, C. Z., Ma, A., & Livingston, R. (2016). Race matters for women leaders: intersectional effects on agentic deficiencies and penalties. The Leadership Quarterly, 27(3), 429–445. https://doi.org/10.1016/j.leaqua.2016.01.008.

Schubart, R. (2018). "I am become death": managing massacres and constructing the female teen leader in television and film. In J. Kendrick (Ed.), A companion to the action film (417–438). Wiley.

Shieh, Y. Y., & Fouladi, R. T. (2003). The effect of multicollinearity on multilevel modeling parameter estimates and standard errors. Educational and Psychological Measurement, 63(6), 951–985. https://doi.org/10.1177/0013164403258402.

Simonato, I, Janosz, M., Archambault, I., & Pagani, L. S. (2018). Prospective associations between toddler televiewing and subsequent lifestyle habits in adolescence. Preventive Medicine, 110, 24–30. https://doi.org/10.1016/j.ypmed.2018.02.008.

Sisson, S. B., Church, T. S., Martin, C. K., Tudor-Locke, C., Smith, S. R., Bouchard, C., Earnest, C. P., Rankinen, T., Newton, Jr., R. L., & Katzmarzyk, P. T. (2009). Profiles of sedentary behavior in children and adolescents: the US National Health and Nutrition Examination Survey, 2001–2006. International Journal of Pediatric Obesity, 4(4), 353–359. https://doi.org/10.3109/17477160902934777.

Sommet, N., & Morselli, D. (2017). Keep calm and learn multilevel logistic modeling: a simplified three-step procedure using Stata, R, Mplus, and SPSS. International Review of Social Psychology, 30(1), 203–218. https://doi.org/10.5334/irsp.90.

Stemler, S. (2000). An overview of content analysis. Practical assessment. Research, and Evaluation, 7(17), 1–6. https://doi.org/10.7275/z6fm-2e34.

Te'eni-Harari, T., Eyal, K., & Aharoni, M. (2020). It's complicated: plot and formal feature complexity in early childhood television content. Mass Communication and Society, 23(4), 578–599. https://doi.org/10.1080/15205436.2020.1711953.

Thompson-Hayes, M., Gibson, D. M., Webb, L. M., Nelson, L., Smith, M. M., & Walker, A. M. (2009). College students' perceptions of fictional television families: perceived realism and potential for emulation. The Kentucky Journal of Communication, 28(2), 151–172. https://www.researchgate.net/profile/Lynne_Webb.

Thrasher, G. R., Biermeier-Hanson, B., & Dickson, M. W. (2020). Getting old at the top: the role of agentic and communal orientations in the relationship between age and follower perceptions of leadership behaviors and outcomes. Work, Aging and Retirement, 6(1), 46–58. https://doi.org/10.1093/workar/waz012.

Uribe, R., & Fuentes-Garcia, A. (2017). Comparing children's explicit and implicit understanding of advertising and placement on TV. International Journal of Advertising, 36(6), 928–944.

Vossen, H. G., Piotrowski, J. T., & Valkenburg, P. M. (2014). Media use and effects in childhood. The handbook of lifespan communication, 93–112.

Wang, Y. (2020). Humor and camera view on mobile short-form video apps influence user experience and technology-adoption intent, an example of TikTok (DouYin). Computers in Human Behavior, 110, 106373.

Yeager, K. L., & Callahan, J. L. (2016). Learning to lead: foundations of emerging leader identity development. Advances in Develop-

ing Human Resources, 18(3), 286–300. https://doi.org/10.1177/1523422316645510.

Zaccaro, S. J., & Banks, D. J. (2001). Leadership, vision, and organizational effectiveness. In S. J. Zaccaro & R. J. Klimoski (Eds.), The nature of organizational leadership: understanding the performance imperatives confronting today's leaders (pp. 181–218). Jossey-Bass.

Zaccaro, S. J., Green, J. P., Dubrow, S., & Kolze, M. (2018). Leader individual differences, situational parameters, and leadership outcomes: a comprehensive review and integration. The Leadership Quarterly, 29(1), 2–43.

Zaccaro, S. J., Rittman, A. L., & Marks, M. A. (2001). Team leadership. The Leadership Quarterly, 12(4), 451–483. https://doi.org/10.1016/S1048-9843(01)00093-5.

Shayna Maskell is an Assistant Professor in the School of Integrative Studies at George Mason University, researching/teaching the intersections between popular and youth culture and social media.

Graziella Pagliarulo McCarron is an Assistant Professor of leadership studies in the School of Integrative Studies at George Mason University. She focuses on teaching/research in ethics and leadership, leadership development/education, and identity and leadership.

Jessie Cannon is a Ph.D. student at George Mason University in the Industrial-Organizational Psychology program, and her research foci include leadership emergence and development, multiteam systems, EEO law and workplace discrimination.

Steven Zhou is a Ph.D. student at George Mason University ?in the Industrial-Organizational Psychology program. His research interests are in leadership development (especially in adolescence and early adulthood), volunteer and non-profit motivation, and psychometrics.

Stephen J. Zaccaro is a professor of Industrial-Organizational Psychology at George Mason University. He has directed/co-directed research projects studying multiteam systems, cyber security incident response teams, team performance and mental models, leader-team interfaces, leadership training/development, leader adaptability, and executive coaching.

Thalia R. Goldstein is Assistant Professor of Applied Developmental Psychology at George Mason University. Her work focuses on children's developing social/emotional skills and how such skills intersect with children's engagement in pretend play/other imaginative activities.

Terms and Conditions