

Look Who’s Talking to Our Kids: Representations of Race and Gender in TV Commercials on Nickelodeon

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There is a paucity of research examining the representations of race and gender in television commercials featured on popular children’s programs. The few studies that do exist tend to emphasize Saturday morning cartoon ads from decades ago. With that in mind, a systematic content analysis of commercials on the popular U.S. children’s cable network Nickelodeon was conducted. This study analyzed the frequency of gender, race, and appearance characteristics of lead presenters (i.e., central characters) in TV commercials featured as part of the weekday after-school programming on Nickelodeon. The analysis of 196 lead presenters suggests that females are underrepresented both as lead presenters and as voiceover actors relative to their real-life population numbers; Asians and Hispanics are grossly underrepresented relative to their real-life population numbers; African Americans are overrepresented; and Indigenous Peoples are absent.

Keywords: television, kids, children, presenters, Nickelodeon, advertising, race, gender

The typical child in the United States sees 40,000 television commercials per year (Comstock & Scharrer, 2010). Television advertising continues to be a powerful force in the overall screen media environment of children primarily because children are vulnerable audience members that have difficulty distinguishing between television advertisements and program content (Merskin, 2008). The portrayal of minorities in American mainstream advertising, meanwhile, has been a topic of debate for decades.

Television advertisements targeted to children can cultivate both racial and gender stereotypes (Liebert, Neale, & Davidson, 1973), and we know that women of color have been consistently underrepresented relative to their real-life population numbers for the past three decades (Bowen & Schmid, 1997). While research suggests that the number of Blacks featured in advertisements has increased considerably, that has not been the case with Latino/Latina, or Asian models (Bowen & Schmid, 1997; Comstock & Scharrer, 2010). Other studies have found a consistent pattern of women of color

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being underrepresented in advertisements—though how models are portrayed can counter stereotypes about race and ethnicity as they relate to occupations (Covert & Dixon, 2008).

Green (1999) examined the relationship between the strength of one's ethnic identity and attitudes and purchase intentions among African American females, and the results suggest that the stronger one's ethnic identity, the more positive the evaluation of the advertisements that feature African Americans. This was especially true if the ads were placed strategically in racially targeted media. We know that gender roles are often portrayed stereotypically in children's television programming (Furnham & Farragher, 2000) and that male characters consistently outnumber female characters, often by rates of 2 to 1 or higher (Browne, 1998; Furnham, Abramsky, & Gunter, 1997).

The racial makeup of characters featured in television commercials targeted to children continues to show non-White characters at rates significantly below their real-life numbers, and the non-White characters tend to be portrayed in low status positions and typically speak less than their White counterparts (Atkin & Heald, 1977). Taylor, Lee, and Stern (1995), for example, found that African Americans are consistently underrepresented in television commercials featuring advanced technology, thus reinforcing a stereotype. In this same study, Taylor et al. found that non-White characters alone, without having White children present, accounted for only 1% of television commercials featuring children.

This matters because television commercials aimed at children are loaded with ideological information about race, gender, ethnicity, and one's place in society (Merskin, 2008). White characters tend to be admirable and assertive, non-White characters tend to be passive (Seiter, 1995), and female characters tend to speak less than males do (Mastro & Greenberg, 2000). Li-Vollmer (2002) reports that even in cases where African Americans, Latinos, or Asians were cast in commercials, they tended to be cast as lower status characters rather than as the primary character.

The point is that the portrayals of the models or characters in advertising have been demonstrated to influence a media consumer's attitudes, and we are operating under the assumption that the same findings can hold true in commercial television advertisements that target children as well.

For the purposes of our study, *children* and *youth* are typically meant to be individuals two through 14 years old. Nielsen Media Research classifies the children's television market in three major demographics: ages two to 11, six to 11, and ages nine to 14. That provides us a range from two through 14 years old. In fact, Nickelodeon finishes at the top or near the top in all three demographics in terms of ratings.

Children can learn from the models presented on television—be they characters in an entertainment program or characters in a commercial. As already discussed, young children under the age of seven are not able to distinguish between programs and commercials. To them, all of the characters on television are just that—characters. By primarily featuring only one gender or one race, television commercials help children to form ideas about their role in society. The portrayals of race and gender in television commercials aimed at children help to teach those children about what is normative and how to interact in social life. Because all children rely on television at least partly for information about others

with whom they have little direct contact, the absence or limited roles of children of color in commercials diminishes understanding and empathy between groups (Merskin, 2008).

ComScore, a research company that examines television and other media, reports that even in an age of unprecedented digital media access, the amount of time kids spend watching TV each day is increasing (Lafayette, 2016). Where, then, is an advertiser to go if the goal is to reach the ever-diversifying child audience? The most popular television networks for children in the United States are Disney, Nickelodeon, and Cartoon Network (Kissell, 2015). Consoli (2012) reports that those marketers that advertise to children by placing commercials on television steer 90% to 95% of all of their advertising dollars to one of the major cable networks that cater to children. Because Disney does not show third-party commercials, most of the TV ad revenue goes to Nickelodeon and Cartoon Network. Cartoon Network, however, caters primarily to the young male audience (though they are regularly offering new programs in an attempt to target young females with some of their shows).

The 800-pound gorilla of kid programming continues to be Nickelodeon. Nick, as it is called, is so dominant as a cable network that it has gone 19 consecutive years as the most watched basic cable network in America (not the most watched "kid" cable network, but the most watched overall; BusinessWire, 2016). Its primary competitor, the Disney Channel, does not show third-party commercials, thus leaving Nickelodeon in prime position to capture the lion's share of the market for television commercials targeted to children. It makes sense, then, to document the portrayal of the lead character presenters of television commercials that are shown on Nickelodeon. This study only examines the commercials aired on Nickelodeon in the American market. While Nick is gaining popularity with children around the globe thanks to satellite and cable television systems, this study examines only those commercial characters portrayed in the United States.

To understand the potential ramifications of significant advertising exposure to racial or ethnic minority children, this systematic content analysis of the TV commercials on Nickelodeon adopts a social cognitive approach in its evaluation of depictions of Blacks, Asians, Latinos, and Whites. Greenberg, Mastro, and Brand (2002) report that the portrayals of these groups have been questionable in the past. Of course, content analyses cannot be used to determine causation, but the characteristics revealed by systematic analyses play an important first step in understanding particular media effects among specific groups (Neuendorf, 2002; Shoemaker & Reese, 1996).

Social cognitive theory posits that individuals are capable of acquiring knowledge through either direct experiences or observational learning. This knowledge can then be processed internally to influence behavior. The theory suggests that viewers, especially children, imitate the behaviors of television characters much the same way that they would imitate the behaviors of their parents, siblings, cousins, or friends. This modeling behavior refers to changes that result in observing others. These models that children create in their minds from television and other agents of socialization, such as family, school, church, and friends, can be used to process information about people of racial and ethnic backgrounds quite different from their own—even if their only contact with such groups is from television (Berry & Asamen, 2001).

Bandura (1986) suggests that the manner in which television images are presented can influence how children interpret and respond to modeled behavior. A key element is how similar the viewer believes he or she is like the portrayed character. If the viewer believes that the character is "like me," then the viewer is more likely to model the behavior (Bandura, 2002). For instance, if a child viewer perceives a character to be similar to herself, and that character then engages in a certain activity as depicted in a TV commercial, then it is possible the viewer will model that behavior, or at least store the information for future consideration as a viable option. We already know that a TV character's race or ethnicity has been found to be an indicator of "liking" of the ad by viewers of the same race or ethnicity (Williams, Qualls, & Grier, 1995), and we also know that Hispanic and African American children tend to watch significantly more television than other groups. Considering that these groups represent the two largest ethnic or racial minority groups in the United States, then it makes sense to examine how frequently and in what capacity (appearance and physical characteristics) they and other ethnic or racial minority groups are presented in commercials on the single most popular television network for children (Mastro & Stern, 2003).

This study is primarily interested in documenting the characteristics of the lead presenters (central characters) that appear on the commercials during the after-school (3–6 p.m.) programs of Nickelodeon in the United States. To this end, conceptual definitions of the key variables are warranted.

In the United States, some races are considered minority, due to their overall numbers compared with the general population, and some ethnicities are also considered minority for the same reason. Additionally, the socioeconomic status, generally, of both racial minority groups and ethnic minority groups, tends to be lower than for the majority group. Though the demographics in the United States change geographically, we chose to look at these groups in whole. The majority racial group is White, and the majority ethnicity tends to be European American. For the purposes of this study, then, any character exhibiting the racial or ethnic characteristics not identified as part of the majority group will be considered a member of the minority. For example, a White character of Latina ethnicity would be a member of a minority group even though the character's race is the same as the dominant group's. For this study, the concept will be referred to as "ethnicity/race," or "ethnic and racial" minorities.

Ethnicity/race is the concept and, borrowing from the U.S. Census,¹ the main race/ethnicity categories we will examine are White, Black, Asian, Latino/Latina, and Indigenous Peoples (e.g., Native Americans).

Although the purpose of this study is to examine the frequency and prominence of racial and ethnic minority lead presenters and their appearance characteristics, we would be remiss to not include a few hypotheses dealing with gender. Greenberg and Collette (1997) report that over 27 television seasons, men outnumbered women as new major characters in every season—often by margins of 2 to 1 or greater, and the increase in the number of new cable networks has had little effect in terms of the

¹ We are aware that there is no universal agreement on the terms used to describe different racial and ethnic groups in the United States. Is it White or Caucasian? Black or African American? Latino or Hispanic? Native American or American Indian? Eskimo or Alaskan Native? For consistency purposes only, we have decided to adopt the terms used by the U.S. Census Bureau.

frequency of female characters portrayed, so it would come as a surprise for women to outnumber men in this study. More recently, the Geena Davis Institute on Gender in Media (2015) provides evidence that the problem persists; the institute reports that the ratio of male to female characters in children's television shows is 2.25 to 1. This leads to the question of what do children see and what do they learn about race and gender when they watch TV commercials on Nickelodeon.

Hypotheses

The general assumption is that the racial and gender depictions of the characters featured in commercials on Nickelodeon will be similar to what has been found on the commercial broadcast networks previously. The overall ethnic/racial breakdown of the United States per the U.S. Census Bureau (2012) is as follows: 63.7% of the population is White; 12.85% is Black or African American; 4.43% is Asian; 15.1% is Hispanic; and 0.04% represents Indigenous Peoples (Native Americans, Native Hawaiians, Pacific Islanders, etc.). To this end, we suggest the following:

H1: Racial and ethnic minority characters in commercials shown on the Nickelodeon network are underrepresented compared with their real-life population numbers.

For our second hypothesis, we propose that racial and ethnic minority characters featured in Nickelodeon commercials are more likely to wear makeup, wear accessories, dress more casually, be more disheveled, be dirtier, and dress more provocatively than White characters. Previous research has found that minority characters on television have, in general, exhibited these characteristics (Mastro & Greenberg, 2000; Mastro & Stern, 2003). We are not suggesting that advertisers would purposely, for example, try to use disheveled characters to sell their products, but rather, relative to their White counterparts, that minority characters are more likely to rate lower on the bipolar 5-point scale that measures grooming. Specifically, our second hypothesis is as follows:

H2: Racial and ethnic minority lead characters are more likely to wear makeup, wear accessories, dress more casually, be more disheveled, be dirtier, and dress more provocatively than their majority counterparts.

For our third and fourth hypotheses, we address the frequencies of females both as lead characters in commercials shown on Nickelodeon and also as voiceover performers. As previously mentioned, Greenberg and Collette (1997) report that men outnumbered women as new major characters for almost three straight decades of television from the 1960s through the 1990s. The Geena Davis Institute on Gender in Media (2015), meanwhile, reports that men continue to outnumber women as characters on television both in prime time and in children's television. Signorielli (1989) found that sex-role images on television tend to be stable, traditional, and support the status quo. Furthermore, there is a consistent pattern of male voice over actors dominating both children's and general television programming (Chandler & Griffiths, 2000; Elliott & Wootton, 1997; Johnson & Young, 2002).

H3: Females are underrepresented as lead characters in commercials shown on Nickelodeon compared with their real-life population numbers.

H4: Female lead characters are underrepresented as voiceover announcers relative to their real-life population numbers.

Method

To establish how racial and ethnic minority characters are depicted in TV commercials that target children, this study presents the results of a content analysis of advertising characters from TV commercials that aired during popular children's programming on Nickelodeon. The sample was selected using what Mastro and Greenberg (2000) describes as the television sample week. That is, each day of the week is assigned a number. Sunday is 1, Monday is 2, Wednesday is 3, and so on. Using a random number generator available at random.org, a number between 1 and 7 was generated. That number was 4, so we started our sample week on Thursday and recorded all of the commercials for that day. The following week, we recorded all of the commercials on Friday, then the following week, Saturday, and so on—until we had a full seven days' worth of Nickelodeon commercials, spanning nearly two months. We concur with Greenberg that adopting this method of sample selection gives us a better overall view of the commercials shown on Nickelodeon than what seven consecutive days of one week would have provided. This is the schedule we followed:

Week 1, Thursday
Week 2, Friday
Week 3, Saturday
Week 4, Sunday
Week 5, Monday
Week 6, Tuesday
Week 7, Wednesday

A one-week sample was constructed from fictional entertainment programming between the hours of 3 and 6 p.m. on the popular children's cable network Nickelodeon during winter of 2013 (the timing ensured that the sample would not be affected by sweeps week). We chose television shows aired on these networks from 3 to 6 p.m. because the programming on these channels at this time of day will most likely appeal to school-age children (from preschool through middle school) arriving home and watching TV after school. Nickelodeon has been rated as having one of the highest viewerships for kids between the ages of two and 14 years on cable networks that show third-party TV commercials (BusinessWire, 2016). This sampling design yielded 196 advertising characters for analysis.

Statistical tests used to examine the hypotheses include chi-square, test of proportion, and one-way analyses of variance. Means, standard deviations, *F* values, and significance levels are reported for all comparisons.

Operational Definitions of Key Variables

The unit of analysis for this study is the central character of the commercial. At the commercial level, we coded for product/service name and product category. At the individual character level, we coded for race/ethnicity, gender, voiceover, character animated, character type (human/nonhuman), and appearance characteristics (makeup, accessories, provocative dress, professional outfit, grooming, cleanliness).

Role category refers to the importance of the character to the commercial. This analysis only examines the "lead presenter," that is, the central character of the TV commercial. Most TV commercials are centered around a central character who is often referred to as the lead presenter by the advertising world.

Appearance characteristics are those that a person can typically control. One's appearance has little to do with biology and a lot to do with individual choice. Indicators of appearance characteristics include: makeup, accessories, outfit, grooming, cleanliness, and dress. Makeup refers to the use of cosmetics to help improve (beautify) the face or other parts of the body. Accessories are objects adorned by characters either for beautification purposes (jewelry like necklaces, rings, earrings, hats) or for practical purposes (tools, communication devices). Outfit refers to an individual's choice of clothing. Grooming refers to an individual's attempt to make oneself neat. Cleanliness refers to an individual's level of being free from dirt, grime, oozing fluids—either on the skin or the clothing—and dress refers to how sexually provocative or alluring the character's clothes are.

While we know that there is a conceptual difference between the terms *gender* and *sex*, in that sex refers to a person's biology and gender refers to whether that person has adopted the societal characteristics ascribed to the sexes, the term *gender* here refers to whether the character is portrayed as being male or female.

The theoretical justification for using these variables as the basis for the study is because they have been found to be affiliated with stereotypical portrayals of racial and ethnic minority characters in the media. Previously, racial/ethnic minority characters have been found to be depicted more stereotypically than White majority characters in terms of their physical and appearance characteristics and behavior (Mastro, 2003; Mastro & Greenberg, 2000).

The appearance characteristics used for this study are borrowed from Mastro and Greenberg (2000). The sets were coded using 5-point bipolar adjective scales. In each case, the first adjective represents the lower value (1) and its opposite represents the higher value (5). For example, for grooming, 1 = *disheveled* and 5 = *well-groomed*. We coded race/ethnicity using the major categories used by the U.S. Census Bureau (2012) as a guideline. Specifically, we coded the characters as White, Black, Asian, Latino/Latina, Indigenous, Other.

Admittedly, some of the characters are not identifiable in terms of race/ethnicity. For instance, a commercial for the popular breakfast cereal Cinnamon Toast Crunch features two cereal pieces with

unidentifiable characteristics, and neither the gender nor the race/ethnicity could be identified. These characters, then, were coded as "non-human" and are obviously not included in the race/ethnicity analysis. In other instances, there were no central characters physically appearing in the commercial. For example, commercials for film or DVD releases consisted of presenter voiceovers speaking over clips of the film cut together. In these cases the race/ethnicity, physical characteristics, and appearance characteristics could not be identified. These presenters, then, were coded as "cannot be determined."

The second author and a male undergraduate student were trained and served as coders. In addition to testing the coding scheme using commercials outside of our sample, both coders independently coded a portion of the advertisements in the sample, making sure to overlap 20% of the commercials to establish a high rate of intercoder reliability. The only major disagreements during the training session between the coders involved questions as to what characters should be coded as the lead characters, and these issues were resolved via discussion prior to individual coding. Not surprisingly, the race, gender, and voiceover variables show higher rates of intercoder reliability than did the appearance and physical characteristics. Recognizing that we should report a reliability index for content analysis that is more robust than, say, percentage agreement, we calculated Krippendorff's alpha and report the following values: race/ethnicity (.86), gender (1.00), voiceover (1.00), makeup (.83), accessories (.84), dress (.82), outfit (.84), grooming (.90), cleanliness (.91), weight (.88), height (.87), hair color (.90), skin color (.85), accent (.93).

Results

The overall ethnic/racial breakdown of the lead presenters that we can identify in the commercials shown on Nickelodeon television programs are as follows: 61.5% of the lead characters ($n = 78$) are White ($n = 48$), compared with 63.7% in real life. Of the identifiable minority characters, 23.1% were Black ($n = 18$), compared with 12.85%; 9.0% were Asian ($n = 7$), compared with 4.43%; and 2.6% were Latino/Latina ($n = 2$), compared with 15.1% in real life. Indigenous Peoples (Native Americans, Native Hawaiians, Pacific Islanders, etc.) were absent from our sample.

According to U.S. Census Bureau (2012) estimates, Latinos are now the largest minority group in the country with an estimated 15.1% of the population identifying themselves as such. This is worth mentioning because, for all intents and purposes, they are largely absent from the TV commercials shown on Nickelodeon. Mastro and Stern (2003) examined the representations of race and ethnicity on prime-time television commercials and found that 83.3% of the speaking characters were White, 12.4% were Black, 2.3% were Asian, 1% were Latino, and 0.4% were Native American. Our analysis reflects a similar pattern as Whites are dominant (85%), followed by Blacks (9.2%), Asians (3.6%), and Latinos/Latinas (1%). The remaining 1.2% of the speaking characters could not be identified as being part of the groups. The pattern of inclusion of Blacks and the near exclusion of all other minority groups previously observed by Mastro and Stern has been confirmed here. Even though Latinos represent the largest minority segment in the U.S. today, they accounted for only 2.6% of all characters examined. In contrast, Blacks account for 23.1% of the identifiable lead characters even though their percentage in the population (12.85%) is less than Latinos (15.1%).

H1 was tested by comparing proportions. To compare proportions, we analyzed the data using a difference of proportion test rather than using chi-square exclusively. Adopting the three-part test as established by Dixon and Linz (2000), we calculated the percentages of Whites, Blacks, Asians, and Latinos portrayed as main characters in the Nickelodeon television commercials. We then computed chi-square statistics to determine if these percentages were significantly different than what we see in the general population. In step two, we subtracted the Nickelodeon television commercial proportions from the proportion of the demographic groups as reported by the Census Bureau. The resulting difference is the percentage point differential. This gives us an idea as to the size and direction of the difference between the real-life population of Whites, Blacks, Asians, and Latinos and those featured on Nickelodeon television commercials. In the final step, we calculated a sampling error per Dixon and Linz (2000) because our percentages are estimates of the overall population of Nickelodeon television commercials. We calculated the sampling error adopting the 95% confidence interval level, and thus used the standard z-score value of 1.96 for each race/ethnicity group. If the percentage point differential exceeded the 95% confidence interval, then we considered the Nickelodeon television commercial percentage as statistically significant. As shown in Table 1, the data suggest that Whites are portrayed in numbers similar to their population numbers, Blacks are overrepresented, Asians are portrayed in numbers similar to their population numbers, and Latinos are underrepresented. Indigenous peoples, meanwhile, were completely absent from our sample.

Table 1. Census Percentages, Television Percentages, Percentage Point Differentials, and Confidence Intervals for Whites, Blacks, Asians, and Latinos to Compare Proportions.

Race	Census, %	Nickelodeon commercial TV, %	Percentage point differential	95% Confidence interval
White	63.70	61.50	-2.20	95% CI [50.5, 72.5]
Black	12.85	23.10	+10.25*	95% CI [13.6, 32.6]
Asian	04.43	09.00	+4.57	95% CI [2.5, 15.5]
Latino	15.10	02.60	-12.50*	95% CI [-1, 6.2]

$\chi^2(4) = 23.44, p < .05$. *Indicates significance.

The most significant frequency difference between real-life numbers and television numbers deals with Latino/Latina lead characters. Although Latinos/Latinas account for 15.1% of the overall U.S. population, they represented only 2.6% of the characters analyzed. The results for the first hypothesis are mixed as Blacks are overrepresented, Latinos/Latinas are severely underrepresented, and Asians are portrayed in numbers similar to what one should expect based on population. Whites are also portrayed in numbers similar to what we see in the general population.

Table 2 presents the means and standard deviations for examining the appearance and physical characteristics of the lead presenters. In terms of the appearance characteristics (those characteristics that, traditionally, the characters have relative control over), the lead presenters did not wear a lot of makeup ($M = 4.20, SD = 1.29, n = 104$) and they were not adorned with excessive accessories ($M = 4.19, SD = 1.23, n = 112$). Although the dress of the characters was overwhelmingly casual ($M = 1.89, SD = 1.19, n = 104$), the outfits were generally conservative ($M = 4.60, SD = 0.72, n = 281$). The characters tended to be well groomed ($M = 4.58, SD = 0.86, n = 101$) and clean ($M = 4.70, SD = 0.84, n = 99$).

Table 2. Means and Standard Deviations for Appearance and Physical Characteristics.

Characteristics of lead characters	<i>M</i>	<i>SD</i>	<i>n</i>
Cleanliness (1 = <i>dirty</i> , 5 = <i>clean</i>)	4.70	0.84	99
Makeup (1 = <i>excessive</i> , 5 = <i>none</i>)	4.20	1.29	104
Accessories (1 = <i>excessive</i> , 5 = <i>none</i>)	4.19	1.23	112
Dress (1 = <i>provocative</i> , 5 = <i>conservative</i>)	4.60	0.72	104
Grooming (1 = <i>disheveled</i> , 5 = <i>well-groomed</i>)	4.58	0.86	101
Outfit (1 = <i>casual</i> , 5 = <i>professional</i>)	1.89	1.19	104

H2 deals with how lead presenters are depicted in commercials shown on Nickelodeon in terms of their appearance characteristics. H2 posits that racial and ethnic minority lead presenters are more likely to wear makeup, wear accessories, dress more casually, be more disheveled, be dirtier, and dress more provocatively (appearance characteristics) than their White majority counterparts. Because we are interested in how minorities fared overall, and also because the frequency of Hispanic characters was so miniscule, it made sense to compare majority lead presenters with minority lead presenters. With this in mind, we created a new variable that placed each character into one of those two categories, which then allowed us to compare minority lead presenters overall with majority lead presenters. A series of one-way analyses of variance was conducted to test H2.

There were no significant differences between the lead presenters in terms of dressing casually, $F(73, 66) = 0.71, p = ns$; dressing provocatively, $F(73, 46) = 2.46, p = ns$; grooming, $F(72, 70) = 9.66, p = ns$; or cleanliness, $F(73, 49) = 2.09, p = ns$. Regardless of their racial/ethnic group, lead presenters tended to dress casually, dress somewhat conservatively, be well groomed, and exhibit a high degree of cleanliness. Racial/ethnic lead presenters were found to be significantly more likely to wear more makeup compared with Whites, $F(72, 69) = 16.71, p < .05$, and to have/wear more accessories compared with Whites, $F(73, 72) = 14.56, p < .05$. The data for H3 are presented in Table 3.

H3 was tested using the same comparing proportions method as described previously (see H1). Table 4 shows the results of the analysis demonstrating that women are, in fact, underrepresented as lead presenters on the commercials shown by Nickelodeon, $\chi^2(1) = 14.02, p < .001$. Specifically, only 36.7% of the lead presenters were female ($n = 65$). Conversely, men were significantly overrepresented at 63.3%. Hypothesis 3 was supported.

H4 was tested using the same comparing proportions method as described previously (see H1). Males served as voiceover actors 63.6% of the time even though men represent only 49.21% of the general population, and females were voiceover actors only 36.4% of the time, even though they

represent 50.79% of the overall population, $\chi^2(1) = 6.41, p < .05$. The final hypothesis, H4, is supported. The data for H4 are presented in Table 5.

Table 3. Independent-Samples t Test for Appearance Characteristics by Race/Ethnicity.

Variables	Racial/ethnic		F	df	Significant
	White/majority M (SD)	minority M (SD)			
Makeup	4.19 (1.07)	4.73 (0.45)	16.71	72, 69	$p < .05$
Accessories	3.90 (1.46)	4.44 (0.89)	14.56	73, 72	$p < .05$
Outfit	4.60 (0.68)	4.48 (0.80)	2.46	73, 46	ns
Grooming	4.58 (0.71)	4.85 (0.46)	9.66	72, 70	ns
Cleanliness	4.75 (0.71)	4.63 (0.79)	2.09	73, 49	ns
Dress	2.02 (1.31)	1.93 (1.00)	0.71	73, 66	ns

Note. Responses were coded using bipolar adjectives as follows: makeup (1 = excessive, 5 = no makeup); accessories (1 = excessive, 5 = none); dress (1 = provocative, 5 = conservative); outfit (1 = casual, 5 = professional); grooming (1 = disheveled, 5 = well-groomed); cleanliness (1 = dirty, 5 = clean).

Table 4. Census Percentages, Television Percentages, Percentage Point Differentials, and Confidence Intervals for Female Characters and Male Characters to Compare Proportions

Gender	Census, %	Nickelodeon commercial TV, %	Percentage point differential	95% Confidence interval
Female	50.79	36.7	+14.09*	95% CI [25.33, 48.07]
Male	49.21	63.3	-14.09*	95% CI [54.64, 71.96]

$\chi^2(1) = 14.02, p < .001$. *Indicates significance.

Table 5. Census Percentages, Television Percentages, Percentage Point Differentials, and Confidence Intervals for Female Voiceover Characters and Male Voiceover Characters to Compare Proportions.

Gender	Census, %	Nickelodeon commercial TV, %	Percentage point differential	95% Confidence interval
Female	50.79	36.4	+14.39*	95% CI [25.21, 47.59]
Male	49.21	63.6	-14.39*	95% CI [55.17, 72.03]

$\chi^2(1) = 6.41, p < .05$. *Indicates significance.

Discussion and Conclusion

Television plays a key role in the socialization process. Viewers, especially children, use television as a source of information to compare themselves to others and to learn about their place in the world and their societal expectations. Television characters, in addition to parents, siblings, family members, friends, teachers, and so on, are models that viewers can use for comparison purposes (Comstock & Scharrer, 2010). Given the lack of contemporary examinations of racial/ethnic minority lead presenters in children's cable network commercials, this study analyzes the overall frequencies of minority and majority lead presenters; frequencies of minority and majority lead presenters; the appearance and physical characteristics of minority and majority lead presenters; the frequency of females as lead presenters; and the frequency of females as voiceover actors.

By analyzing a sample week's worth of after-school programming commercials on Nickelodeon, this study finds that, in terms of overall frequency compared with real-life population numbers, Latinos/Latinas are severely underrepresented; African Americans are overrepresented; White/majority characters are represented in numbers that we should expect; Asians are overrepresented; and American Indians/Alaskan Natives and Native Hawaiian/Pacific Islanders are absent.

In addition, we find that women are significantly underrepresented as lead presenters both overall and also as voiceover actors compared with their real-life population numbers. In this study we should have expected to see 50.79%, or 90 women lead presenters in accordance to the census data. Conversely, men were significantly overrepresented 63.3% on TV compared with 49.21% in the general population. This suggests that there is still room for improvement in gender equality for lead characters in TV advertisements that target children.

In a study of the portrayal of characters on prime-time television, Mastro and Greenberg (2000) selected appearance variables that had been found to play a role in image formation and stereotyping. They found, for instance, that Latinos were more likely to be portrayed wearing more accessories and jewelry and are stereotypically shown as being the best groomed, whereas African Americans were more likely than their White counterparts to dress provocatively and to be the least well groomed. For a more in-depth discussion of stereotypical portrayals for the different racial and ethnic groups, see Ramírez Berg (1990).

In terms of the characteristics examined, the data reveal that minorities are presented generally the same as White characters except in terms of two appearance characteristics (minority lead presenters were more likely to have accessories and were more likely to wear makeup).

However, minority characters are faring significantly better than what has been reported previously on prime-time broadcast television in terms of their characteristics (Greenberg & Atkin, 1982; Gunter, 1998; Mastro & Greenberg, 2000). Overwhelmingly, non-White and White characters are portrayed similarly. Rather than depicting racial and ethnic minority characters as exhibiting stereotypical characteristics as has been demonstrated in the past, the lead presenters analyzed here are depicted in the same favorable light across the board. This may indicate a conscious awareness by network executives

at Nickelodeon to accept TV commercials that are inclusive of White and non-White lead characters. It may also be an indication that advertisers pay careful attention to use both White and non-White group members to serve as lead presenters, ostensibly to appeal to the growing buying power of these groups. Also, advertisers strive to avoid controversy, so the results may reflect an attempt by advertisers to include nonstereotypical depictions of non-White characters.

Similar to what Mastro and Greenberg (2000) found for prime-time programming, Latino/Latina characters are only minimally represented on Nickelodeon commercials. Although the bipolar scales' poles used for this study represent arbitrarily chosen numeric values (developed and used by Mastro & Greenberg, 2000), it is worth noting that, for the few available Latino/Latina depictions, the characters are portrayed similarly to White characters, as well as to Blacks and Asians. In other words, with the exception of frequency, Latinos/Latinas are presented in the same light as the other characters in children's programming.

Overall, then, this study of television commercials on Nickelodeon indicates that some progress has been made (especially in regard to the frequencies in which Blacks are featured as lead presenters), but there is still room for improvement considering the paucity of Latinos/Latinas, the absence of Indigenous peoples, and the underrepresentation of women as lead presenters. We suggest that the portrayal of non-White lead presenters in TV commercials might influence how children perceive different groups, but that to effectively measure such influence, effects studies (experiments, surveys, focus groups) of children need to be conducted. In effect, this would be Phase 1 of such an attempt. Now that we have a better idea of the frequencies of minority lead presenters on children's TV commercials, Phase 2 would be to directly measure the effects. Another limitation of this study is that we only coded for the lead presenter. Future researchers should consider expanding similar content analyses to code for all characters (human, nonhuman, animated, voiceover actors, etc.) featured and not just the central character.

If we adopt a social cognitive theoretical approach to this analysis, we would expect that Blacks and Whites would be less likely to develop negative self-perceptions based on exposure because (1) they are presented in numbers at or above their real-life population numbers, and (2) they are portrayed positively (Bandura, 1986; Mastro & Stern, 2003). Children who are either Latino/Latina or Indigenous, on the other hand, may implicitly be getting the message that their respective demographic groups are not as legitimate as the other groups. Considering that Latinos/Latinas represent 15.1% of the general population and that they represent the fastest growing ethnic minority group in the United States, we would have expected a higher rate of frequency of Latino/Latina lead presenters. In sum, when ethnic or racial minority group members are featured as lead presenters on TV commercials geared toward children, they tend to be depicted in nonstereotypical ways. The problem is that the largest ethnic minority group in the United States is woefully underrepresented. When it comes to depicting Latinos/Latinas, Indigenous peoples, and women, we still have significant room for improvement.

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