Published in final edited form as:

Howard J Commun. 2009 ; 20(1): 55–72. doi:10.1080/10646170802665208.

Underrepresentation and Symbolic Annihilation of Socially Disenfranchised Groups ("Out Groups") in Animated Cartoons

HUGH KLEIN and

Kensington Research Institute, Silver Spring, Maryland, USA and Morgan State University, Baltimore, Maryland, USA

KENNETH S. SHIFFMAN

Cable News Network, Atlanta, Georgia, USA

Abstract

For many years, the mass media have been accused of providing negative and potentially-damaging messages to viewers. Some have complained that the media are replete with too much violence while others have lamented on media stereotyping of various groups. In this article, the authors examine the issues of underrepresentation and symbolic annihilation as they apply to one particular medium–namely, animated cartoons–to which people are exposed early in life, typically on a regular basis for many years. Our principal research questions are (a) To what extent do cartoons underrepresent and/or symbolically annihilate social groups that are not considered desirable in society-at-large? (b) Has underrepresentation and/or symbolic annihilation changed over time? and (c) When social "out groups" are shown, how are they depicted vis-a-vis "in groups"? To examine these questions, the authors examine portrayals based on gender, age, race, and sexual orientation. The data revealed that animated cartoons have a long history of underrepresenting and symbolically annihilating socially devalued "out groups" and that little has changed over the course of the past 65+ years. When "out group" members are included in cartoons, however, their portrayals tend not to be dramatically different–not better and not much worse–than those typical of their "in group" counterparts.

Keywords

animated cartoons; mass media; media content; out groups; symbolic annihilation; underrepresentation

For several decades, legislators and watchdog groups have targeted the mass media because of what is perceived by many persons to be negative content. Many have lamented that there is too much violence in the media; and content analysis research studies have supported these claims by documenting high rates of violent media content (Cole, 1997; Jason & Fries,

Address correspondence to Hugh Klein, Kensington Research Institute, 401 Schuyler Road, Silver Spring, MD. hughk@aol.com.

NOTES

Publisher's Disclaimer: This research was supported by a grant by the National Institute on Alcohol Abuse and Alcoholism (R03-AA09885). We acknowledge, with gratitude, Denise Welka Lewis, Scott Desmond, Lisa Gervase, and Thomas Lambing for their contributions to this study's data collection efforts. We thank Kenneth Ossman for his input regarding this article's conceptualization as well.

2004). Research studies have also shown that other types of nonviolent antisocial content, such as verbal and physical aggression, are also quite prevalent in the media (Williams, Zabrack, & Joy, 1982; Woodard, 1999). Still others have noted that the media have a long history of providing unrealistic and stereotyped images of different "types" of persons based on such characteristics as gender (Aubrey & Harrison, 2004; Stern, 2005), age (Harwood & Anderson, 2002; Stern, 2005), race (Coltraine & Messineo, 2000; Harwood & Anderson, 2002), and body weight (Klein & Shiffman, 2005; Spitzer, Henderson, & Zivian, 1999).

Coinciding with these studies, other authors have accused the media not only of providing negative and/or stereotyped images of many groups, but also of providing too few images of certain groups. Numerous authors have commented on the fact that many groups (e.g., racial minorities) are underrepresented in the media (Eschholz, Bufkin, & Long, 2002; Glascock & Preston-Schreck, 2004). Others have made similar claims about the lack of older adult (i.e., elderly) characters (Harwood & Anderson, 2002; McConatha, Schnell, & McKenna, 1999), women (Glascock & Preston-Schreck, 2004; Lauzen & Dozier, 2005), and persons whose sexual orientation is anything other than heterosexual (Fouts & Inch, 2005; White, 2002). One aspect of these published studies that is particularly noteworthy with respect to the present study (which focuses on a medium that targets youths) is that virtually all of these published works have been based on media targeting adults or on media types with predominantly adult audiences.

The media's underrepresentation or near-total absence of portraying certain groups has been termed *symbolic annihilation* by some writers (Merskin, 1998; Ohye & Daniel, 1999). An early scholarly reference to the term *symbolic annihilation* was made by Tuchman (1978), who described the phenomenon as a process by which the mass media omit, trivialize, or condemn certain groups that are not socially valued. Ostensibly, the contention is that, by rarely or never showing certain types of persons, the mass media, as cultural mechanisms, systematically dispense with imagery and messages associated with these types of persons and, in the process, send a symbolic message to viewers/readers about the societal value of the persons comprising that group. Similar to Tuchman, Merskin (1998, p. 335) more recently defined *symbolic annihilation* "as the way cultural production and media representations ignore, exclude, marginalize, or trivialize a particular group." The basic idea is that groups that are valued in a particular culture tend to be shown frequently in the media, and viewers/readers come to learn about these groups' purported characteristics and their implied value to the culture-at-large by virtue of their media exposure. But when certain groups are not valued in that same culture, the media tend not to include them in their storylines and, in the process, cast them aside and disenfranchise them by not showing them.

Symbolic annihilation in the media is of concern because it presents people with implied messages about what it means to be a member of a culturally valued group versus a member of a socially disenfranchised group (or "out group"). The absence of a particular group in the media instructs people, albeit tacitly, about how one should or should not act, and about what one should or should not look like. Over the years, a substantial body of literature has accumulated to demonstrate that exposure to the media has a profound impact upon people's beliefs, attitudes, and behaviors (see, e.g., Paik & Comstock, 1994; Shrum, Wyler, & O'Guinn, 1998). There appears to be a dose-response effect operating, such that people who

have more exposure to the media are more affected by what they see, hear, and read—or do not see, do not hear, and do not read—than their peers who are exposed less significantly to media messages (Shrum et al., 1998; Singer, Slovak, Frierson, & York, 1998).

Conceptually, this makes perfect sense and there is a substantial body of theoretical work in the social science and media studies fields to account for—and to anticipate the presence of—these types of effects. For example, social learning theory (Akers, 1973; Bandura, 1971) posits that people acquire their beliefs, attitudes, and propensity to engage in behaviors directly based on first-hand experiences they have with others who exhibit particular behaviors and/or indirectly, based on what they observe others (in person or in the mass media) doing or saying. Accordingly, social learning theory would predict that people of all ages (and young people in particular) will learn a great deal about socially valued groups and out groups and the social consequences of being a member of the latter just from being exposed to media content.

As another example, cultivation theory states that media viewers' perceptions of social reality will be shaped by extensive, cumulative exposure to media messages (Gerbner & Gross, 1976; Signorielli & Morgan, 1990). This theoretical model assumes that people develop beliefs, attitudes, and expectations about the real world based on what they see on television, in films, in magazines, and so on. Subsequently, they use the beliefs, attitudes, and expectations they develop to make decisions about how they will behave in real-world settings and situations. In the context of the study of media content pertaining to "in group" and "out group" representations, cultivation theory would posit that media messages serve as agents of socialization regarding what to think about socially valued versus socially devalued groups. The cumulative exposure to these messages teaches people that there are numerous ways in which it is better or preferable socially to be Caucasian rather than a racial minority group member (or male rather than female, or youths rather than older adults, etc.), and that there will be social consequences to pay if one is different from the media-promulgated standards of "good" characteristics.

Heeding these theoretical models' tenets and the aforementioned research findings, the present study entails an examination of the content of one medium that, we contend, is likely to provide young people with some of their earliest notions regarding societal standards and expectations: animated cartoons. We have chosen animated cartoons as the focal point of this research for a few reasons. First, people are exposed to this type of medium beginning at an early age. Therefore, messages provided by this particular medium are likely to be influential in the initial stages of developing beliefs and attitudes about different social groups. Second, for most young people, this exposure continues for many years, and typically entails repeated and frequent media content exposures during that entire viewing period. Thus, animated cartoons also help to crystallize young people's beliefs and attitudes about various social groups, while helping to shape relevant behaviors toward these groups through the repeated and consistent messages they provide. Research has shown that early-life exposure to media messages does, indeed, affect the formation of attitudes and contributes to the crystallization of notions about a variety of aspects of young viewers' social worlds (Greenberg, 1982; Tiggemann & Pickering, 1996).

In this study, we address three principal research questions. First, to what extent do animated cartoons provide representative numbers of socially-devalued groups? To address this question, we will examine the prevalence of four specific social groups: females, racial minority group members, older adults, and characters whose sexuality is something other than heterosexual. Second, have there been changes over time in the frequency with which these groups have been shown? Third, when members of socially disenfranchised "out groups" are shown in animated cartoons, how are they depicted when compared with their "in group" counterparts? To address the latter question, we will examine the characteristics associated with members of these groups on such dimensions as body weight, physical attractiveness, overall goodness/badness, involvement in prosocial activities, and perpetration of antisocial behaviors.

METHODS

Sampling Strategy

This study is based on an examination of the content of animated cartoons. For the present study, only animated cel cartoons are included in the sample (e.g., Bugs Bunny, Popeye, Mighty Mouse, Yogi Bear). The cartoons chosen for the study sample were selected randomly from among all cartoons produced between the years 1930 and the mid-1990s by all of the major animation studios (more than 40 of them in all). Before drawing the final sample of cartoons that would be viewed and coded for this work, the researchers had to develop a comprehensive and inclusive sample frame of cartoons produced by the aforementioned animation studios. Published filmographies (Lenberg, 1991; Maltin, 1980) provided the authors with a great deal of this information and, in some instances, the animation studios themselves were contacted and asked to provide comprehensive episode-by-episode lists of animated cartoons they had produced. Once the "universe" of cartoons had been identified, actual copies of the specific cartoons selected for viewing and coding as part of the random sampling approach had to be located. This was done by getting copies of some cartoons from animation fans and collectors, visiting film archives and repositories and viewing their cartoons on site, obtaining cartoons directly from the animation studios, purchasing sample-selected items from retail outlets and private sellers who advertised them in trade publications, renting videocassettes from retail outlets, and videotaping from programs broadcast on television. Due to the fiscal constraints of the funding program, only animated cartoons with a total running time of 20 minutes or less were included in the sample frame.

A stratified (by decade of production) random sampling procedure was used to ensure that cartoons from all decades were represented equally in the study sample. This stratification procedure was necessary because very different numbers of cartoons have been produced during different decades (e.g., many more were produced during the 1980s than during the 1930s), thereby leading to the risk that a general random sample (as differentiated from this study's stratified random sample) might have led to an overrepresentation of certain decades during which greater- or lesser-than-average numbers of different "types" of characters were portrayed.

Data Collection

This study relied upon a content analysis approach to examine the types of messages that cartoons provide. Data collection for this research entailed viewing the cartoons contained on the project's sample list and recording detailed information on predesigned, pretested, pilot tested, fixed-format coding sheets. Prior to beginning their viewing and coding work for this study, research assistants underwent an intensive training that familiarized them with the data that the study strived to collect, the rationale underlying the coding of each piece of information, and the decision-making procedures that should be used when recording information from each cartoon. To make sure that all people involved in the viewing/coding (i.e., data collection) process implemented the decision-making procedures in a similar manner, intercoder reliability coefficients were calculated periodically throughout the project. Reliability estimates (using Cohen's kappa coefficient) were .90 or greater for all of the variables used in the analyses reported in this article, indicating a very high level of intercoder reliability for this research.

To understand the information that this study contains, it is best to conceptualize the database as consisting of two datasets. Dataset #1 focuses on the cartoon itself as the unit of analysis and contains macro-level variables that provide prevalence-type information. Among others, this dataset includes such measures as the cartoon's length; number of characters of each gender, race, age, and so forth; number of times using legal and illegal drugs; and number of prosocial and antisocial acts committed. This dataset facilitates analyses indicating the proportion of cartoons containing at least one character of a particular racial or gender or age group, and how these proportions changed over time. The sample size for this data set is 1,221.

Dataset #2 focuses on the major characters in each cartoon. This dataset contains information about each major character's gender, age, race, ethnicity, marital status, intelligence, attractiveness, body weight, physique, goodness/badness, and other demographic/descriptive information. In addition, Dataset #2 contains data about the number of acts of violence, aggression, and prosocial behaviors that the characters committed. This dataset's information is useful for examining such things as whether males/females or smart/dumb characters or attractive/unattractive characters and so forth are more likely to possess certain characteristics or engage in certain activities, whether specific "types" of characters engage in more activities, prosocial behaviors, antisocial behaviors, etc. The sample size for this data set is 4,316.

Operational Definitions of Some Key Concepts

For this study, we had to develop our own operational definitions of what prevalence, exactly, we consider to constitute underrepresentation and what prevalence we label as *symbolic annihilation*, because none of the published studies we found addressing these concepts provided cut-off points for what was considered proportional representation, what was deemed underrepresentation, and what was construed as symbolic annihilation. In the analyses that follow, we will consider a group to be underrepresented if its prevalence is less than half of that observed in the population-at-large, and we will consider it to be an

example of symbolic annihilation if its prevalence is less than one-quarter of that found in the society-at-large.

Because these analyses also focus on gender, race, age, and sexual orientation, we wish to provide some information about how each concept was defined in this study. For this research, gender could be coded as male, as female, or as "indeterminable/no specific gender is intended for this character." Coders were instructed to use the following characteristics for determining that a particular character was a male or a female, rather than "no specific gender intended for this character": (a) gender-specific name, (b) gender-specific pronoun references to him/her made by other characters, (c) gender-specific family roles (e.g., mother, aunt, grandfather, nephew) made explicit by the cartoon or its characters, (d) gender-laden titles (e.g., sir, ma'am, Mr., Ms.) used to refer to the character, or (e) overall intonation and pitch of the character's voice, provided that it was unmistakably male or female in nature.

With regard to race, every character's race was classified either as Caucasian, African American, Latino, Asian, Native American, or as "no race intended." Coders were instructed that all human characters must be coded for their racial group. All other character types were to be classified as "no race intended" by default unless the cartoon provided specific, unmistakable reasons (based on the character's appearance) to select one of the other racial classifications. The benchmark that coders were instructed to use for classifying a nonhuman character as being something other than "no race intended" was if "some racial comparison is made, if some racial reference is made, or if the character's appearance is changed at some point during the cartoon to indicate a purported change in race." Not surprisingly, many of the cartoon characters studied were nonhumans whose race was considered to be "no race intended," leaving us with a sample size of 1,674 major characters with a codable, discernible race.

Regarding age, every character was classified either as child, adolescent, adult, older adult (i.e., elderly), or age indeterminable/no age intended. Coders were instructed that all human characters must be coded for their age group. All other character types were to be classified as age indeterminable/no age intended by default unless the cartoon provided specific reasons to select one of the other age classifications. Pertaining to the present article's analyses, four specific criteria were used for considering a character to be an older adult: (a) if the character's age was mentioned and was said to be age 65 or greater, (b) if the character was shown to be retired from a job or referred to by another character as a retiree, (c) if the character was shown as a grandparent or referred to by another character as a grandparent, or (d) if another reference of this nature was provided, such that it enabled a differentiation of the character's age.

Finally, with respect to sexual orientation, in this research, characters could be coded as heterosexual, gay/lesbian, bisexual, or no sexual orientation implied. Coders were instructed to code all characters as "no sexual orientation implied" by default unless the cartoon content provided specific reasons to code them otherwise. Content that entailed one character flirting with another, or that indicated a romantic or sexual interest in another character, was required in order to code a character's sexual orientation as heterosexual, gay/

lesbian, or bisexual. Not surprisingly, the large majority of the characters were classified as "no sexual orientation implied," leaving us with sexual orientation-related data for 603 of the characters studied.

In this study, we collected detailed data (i.e., the information collected in Dataset #2) only for major characters, although some prevalence-related information pertaining to minor characters' race was captured in Dataset #1. We felt that it was important to distinguish between major and minor characters because the former have a much more consequential impact upon cartoons' storylines and messages, whereas the latter do not. Consequently, we adopted operational definition criteria that would enable major and minor characters to be differentiated easily and meaningfully. Coders were instructed to follow these rules in order to determine whether a character was "major" or "minor": First, all characters were supposed to be classified by default as minor, unless one or more of the following conditions was/were met. Second, if a character appeared in an average of at least two camera cuts[1] for each complete minute or additional partial minute[2] of the cartoon's running time, that was sufficient to label it a major character. Third, a character could be considered major if it spoke an average two sentences or phrases counting as sentences[3] per minute or partial minute of the cartoon's total running time. Finally, a character could be considered "major" if it appeared on screen for at least 20% of the cartoon's total running time, regardless of the number of camera cuts and sentences or phrases counting as sentences spoken. Although these rules may seem to be somewhat convoluted, determining whether a character was a major or minor one was an easy, straightforward process.

A number of other variables were also examined in the analyses conducted in conjunction with this research, and are also referred to in the *Results* section. "Overt acts of racism" were examined in conjunction with the race-related findings. We defined an *overt act of racism* as "any portrayal of a character belonging to a racial minority group that is based on stereotypes of that character's racial group's behaviors or exaggerations of that character's racial group's physical traits. In order to be counted as an act of overt racism, the depiction must be a disparaging and/or unflattering one." Moreover, coders were instructed to code something as being overtly racist "if the cartoon shows any character treating another character in a disparaging manner because of that character's race." For the variable "physical attractiveness," coders could label a character as being above average/physically attractive, average/ordinary looking, or ugly/physically unattractive. Each character's intelligence level was coded either as above average in intelligence/smart, average intelligence, below average in intelligence/stupid, or as mixed messages provided about

1. The best way to understand the concept of "camera cut" is to think of looking through the lens of a camcorder, as if one were filming. Whatever is seen through the lens is in the field of vision. If someone moved outside of the field of vision and then returned to it, either because of his/her own movement or because of the movement of the camcorder's field of vision, that would constitute two camera cuts by this study's definition—one when he/she was initially in the picture, and a second one when he/she returned to view again after the temporary disappearance.

2. Time increments for these computations were based in much the same manner that parking garage fees are based. If someone stays for 1 hour and 15 minutes, that person is charged for two hours. Likewise, in this study, if a cartoon had a running time of 8 minutes and 10 seconds, the computations for major/minor character are based on a 9-minute-long cartoon rule.

3. Many dialogs and verbal exchanges or utterances do not involve complete sentences, but instead, are based on "shorthand" responses that take the place of complete sentences. For instance, if someone asked "How are you doing today?" and the response given was "Fine," in this study, the "fine" reply would be considered one phrase counting as a sentence, because it is the functional equivalent of a "I am doing fine" complete-sentence response.

character's intelligence/smart in some ways and below-average in intelligence in other ways. Regarding "physique," coders could classify characters as above average physique/well-built, average physique, or below average physique/scrawny/flabby. Prosocial acts examined in this study included providing physical assistance, complimenting another character's appearance or performance, providing monetary assistance, and providing advice or knowledge (each measured as the number of times that a particular character engaged in this behavior), and a summative measure indicating "overall amount of prosocial behaviors." Antisocial acts were also examined, including the perpetration of verbal abuse or verbal aggression, engaging in physical aggression against another character, lying to or deceiving another character, and committing acts of violence (each measured as the number of times a character engaged in the act in question), and a summative measure indicating overall amount of antisocial behaviors performed. Another variable enabled coders to identify each character's overall valence on a good guy/bad guy spectrum, using four possible categories for the coding: good guys, bad guys, characters about whom mixed messages of their goodness/badness were provided, and neither good nor bad guys.

Analysis

Some of the findings reported in this article are based on descriptive statistics, particularly where prevalence estimates are used, as was the case for Research Question 1. Changes over time (Question 2) are examined using logistic regression, because the dependent variable was dichotomous (e.g., whether or not a cartoon contained characters belonging to specific groups) and the predictor variable was a continuous measure. Tests of curvilinearity were performed to determine whether observed changes were linear in nature or whether they demonstrated periods of significant upswing followed by periods of significant downswing (or vice-versa). These were conducted by adding squared, and in some instances cubed, terms of the independent variable, as this is the "standard" way of testing for curvilinearity (see, e.g., McDonald, 2007, or Pedhazur, 1982). Most of the analyses examining the characteristics associated with which "types" of characters (Question 3) were more/less likely than others to be male or female, Caucasian or a racial minority group member, older adult or of another age grouping, or heterosexual versus anything other than heterosexual entailed the use of chi-square tests, since the comparison variables (e.g., attractiveness, intelligence, goodness/badness) were categorical in nature. In some instances, odds ratios (ORs) with 95% confidence intervals (CI_{95}) were computed for these measures because they facilitated direct comparisons of the messages provided about characters of different "types," whereas other statistical tests do not lend themselves so easily to such comparisons and interpretation. Finally, Student's *t* tests were used for examining prosocial and antisocial behaviors (Question 3), because these dependent variables were continuous in nature. Because of the large sample size used in this research, results are reported as statistically significant whenever $p<.01$ and as marginally significant whenever $p<.05$.

RESULTS

Gender

Averaged over time, females accounted for only 16.4% of all characters with a codable gender, thereby constituting an example of underrepresentation. Figure 1 shows how the

representation of female characters changed over time. During almost all periods, females were underrepresented; during some periods, their prevalence was so low that they were symbolically annihilated. The prevalence of female characters declined sharply from the 1930s until the early 1960s (logistic regression *OR*= 1.12, CI_{95}=1.09–1.16, p<.001), after which it increased sharply until the end of the study period (logistic regression *OR*=1.00, CI_{95}=1.00–1.00, p<.001).

Males and females were portrayed quite differently from one another. For example, females were shown to be more physically attractive than males (χ^2_{2df}=185.98, p<.001) and were more than six times as likely as males to be shown as above-average in looks (*OR*=6.66, CI_{95}=4.88–9.08, p<.001). As another example, females were depicted as being more intelligent than males (χ^2_{2df}=10.85, p=.005), with males being more than twice as likely as females to be shown as below-average in intelligence (*OR*=2.48, CI_{95}=1.37–4.50, p=.002). Moreover, males and females differed in the quality of their physiques (χ^2_{2df}=25.68, p<.001), with females being nearly twice as likely as males to be shown as having a good body or being "built" (*OR*=1.97, CI_{95}=1.50–2.60, p<.001). Male characters perpetrated 50% more antisocial behaviors than female characters did (2.75 versus 1.72, t=5.55, p<.001). In terms of their overall valence as "good guys" or "bad guys," females were nearly twice as likely as males to be considered "good" (*OR*=1.93, CI_{95}=1.53–2.44, p<.001).

Race

Figure 2 shows quite clearly that, as time has passed, cartoons have contained fewer and fewer African Americans, Latinos, Native Americans, and Asians when compared with their numbers in the population-at-large (logistic regression *OR*=1.02, CI_{95}=1.01–1.03, p<.001). Although racial minority group members were represented in greater-than-expected numbers during the cartoons of the 1930s and 1940s, this declined sharply to the point where it constituted underrepresentation from the 1960s onward. Averaged over time, racial minority group members comprised 8.7% of the study sample. This compares to approximately 14.8% of the American populace, averaged over the period covered by this research. Representation varied considerably among the different racial groups studied, though. African Americans were underrepresented, as they comprised 3.6% of the characters studied versus 10.8% of the American population[4] averaged across the years spanned by this research. Latinos were also underrepresented, comprising 1.8% of the major characters studied versus 4.6% of the populace. Very few Asian (n=16) or Native American (n=16) characters were observed in this study, comprising 1.0% of the major characters with codable race, compared with 1.1% and 0.4% of the population-at-large.

Compared with their Caucasian counterparts, racial minority group members did not differ in terms of their physical attractiveness (χ^2_{2df}=2.15, p=.35), physiques (χ^2_{2df}=4.32, p=.12), intelligence (χ^2_{2df}=12.99, p=.23), prosocial behaviors (t=0.05, p=.96), antisocial behaviors (t=1.21, p=.23), or overall goodness/badness (χ^2_{2df}=2.79, p=.10). It is worth noting, however, that the prevalence of overt acts of racism (as defined earlier) declined sharply over time ($F_{1,1218df}$=28.22, p<.001), from a prevalence of approximately 14% during the 1930s

[4]. All American population figures reported here were derived from Gibson and Jung's (2002) work synthesizing historical census figures for the United States.

and 1940s to a prevalence of approximately 2% from the later 1960s to the end of the study period. In another work (Klein & Shiffman, 2006), we discussed in much more detail the decline in overt acts of racism over time and the fact that, on most dimensions studied, members of racial minority groups and Caucasians were not depicted very differently from one another. Readers are encouraged to consult that work for further elaboration on these issues.

Age

Averaged over time, older adult characters comprised 3.1% of the study sample but 9.0% of the American population during the years covered by this research. Thus, overall, elderly characters are underrepresented in animated cartoons. Figure 3 shows how their prevalence in cartoons changed over time. Older adults were shown most proportionately during the 1930s and during the early 1960s. During all other time periods, they were shown infrequently enough that their prevalence could be considered underrepresented or symbolically annihilated. Indeed, during the 1940s, only one of the cartoons studied contained any older adult characters at all.

Compared with their child, adolescent, and adult counterparts, older adult characters were more than twice as likely to be above-average in intelligence (OR=2.42, CI_{95}=1.27–4.59, p=.006). In terms of their overall goodness/badness, elderly characters were more than twice as likely as their younger counterparts to be classified as good guys (OR=2.27, CI_{95}=1.41–3.64, p<.001). No age-related differences were found based on characters' physical attractiveness (χ^2_{2df}=3.27, p=.20), physiques (χ^2_{2df}=5.65, p=.06), number of prosocial acts committed (t=0.75, p=.46), or number of antisocial acts perpetrated (t=1.41, p=.16).

Sexual Orientation

In terms of prevalence, of the 603 characters studied that had any type of implied sexual orientation, only 2 were found to be anything other than heterosexual. Both of these characters were coded as being gay and both were males. Representing a mere 0.3% of the cartoon characters studied, gay men, lesbians, and bisexuals can be said to have been symbolically annihilated in the cartoons viewed in conjunction with this research, with the latter two groups having been completely absent from the cartoons studied. With an n of 2, further analysis of these characters' other traits and activities is not possible.

DISCUSSION

Before discussing the implications of our findings, we would like to acknowledge a few potential limitations of the present study. First, this research was based on animated cartoons with running times of <20 minutes, thereby excluding longer cartoons from consideration. We do not know whether or not short- and long-form animated cartoons are similar to one another with respect to the types of messages they convey, and therefore cannot assess the extent to which the exclusion of the latter may affect this study's findings. Conducting research such as ours with longer cartoons would be a worthwhile endeavor for future researchers to undertake. Second, our sample ends during the middle-1990s. It would be helpful to have this research extended to the present, so that the most up-to-date trends

possible are studied and analyzed. Third, as with any content analysis research study, some scholars might prefer to use different operational definitions of the key constructs. There is no “gold standard” in content analysis research with regard to defining major versus minor characters, older adult characters, and so forth. The definitions that we adopted were chosen on the basis of common sense, so that they would foster face validity, and on the basis of simplicity and clarity of implementation, so that they would maximize interrater reliability. We believe that our operational definitions are well-conceptualized and justified; but there is no way to know the extent to which the use of different definitions might have led to different research findings.

Despite these potential limitations, we still believe that the present research has much to contribute to our understanding of cartoons’ messages about various social groups. First, as with mass media types that target adult audiences, animated cartoons, which are intended primarily for younger audiences, have a strong tendency to underrepresent groups that are not socially valued. Females comprise approximately 50% of the populace, yet they account for only 16.4% of the major characters shown in animated cartoons. Racial minority group members comprised 14.8% of the American population averaged across the years spanned in this research (U.S. Census Bureau, 2000), yet they constituted only 8.7% of the characters studied. In particular, African Americans and Latinos—the nation’s two largest racial minority groups—were underrepresented, with each group being shown approximately one-third as often in cartoons as they exist in the society-at-large. Older adults comprised 9.0% of the American population averaged across the years spanned in this research (U.S. Census Bureau, 2000), yet only 3.1% of the characters studied in conjunction with this research were classified as older adults. Previous research has reported that anywhere from 4% to 9% of all adults are gay or lesbian (McWhirter, Sanders, & Reinisch, 1990; Sell, Wells, & Wypij, 1995), and recent evidence suggests that the bisexual population is likely to be comparable in size to the homosexual population (Mosher, Chandra, & Jones, 2005); but in the cartoon universe, only 0.3% of the characters studied were anything other than heterosexual. All of these groups—women, persons of color, older adults, gay men, lesbians, and bisexuals—are devalued in our culture, and all are shown infrequently in animated cartoons. By ignoring, excluding, and marginalizing these groups, as Merskin (1998) put it (i.e., by underrepresenting and/or symbolically annihilating them), cartoons convey the message to viewers that these groups are unimportant to the society-at-large, or at best, that they are less important than their male, Caucasian, younger, and heterosexual counterparts. Because animated cartoons are likely to be among the earliest media types to which young persons are exposed, and because their exposure to this medium’s messages is, for many viewers, repeated on a daily basis over a period spanning many years, we believe that the underrepresentation of socially devalued groups, or out groups, in animated cartoons is potentially one of the earliest and most influential sources of negative messages that people get vis-a-vis being a member of the valued cultural majority versus a member of one (or more) of its devalued cultural groups.

Another important finding emanating from this research is that the underrepresentation of these groups has not, as a general rule, improved over time. Indeed, for racial minority groups, underrepresentation/symbolic annihilation has worsened over time and has been particularly problematic since the mid-1960s. Likewise, older adults have been especially

underrepresented ever since the mid-1960s. Indeed, for all time periods except one since the early 1940s, they have been found only infrequently in cartoons. Throughout all periods, cartoons have symbolically annihilated characters whose sexual orientation is anything other than heterosexual. Out of more than 4,300 characters coded for this research, we did not identify any lesbian or bisexual characters—none at all. Even gender, which has shown a sharp increase in female representation ever since the early 1960s, still remains problematic, with female characters never having been any more prevalent than meeting this study's definition of underrepresentation since the mid-1930s. We find it intriguing and disheartening that, despite the passage of approximately 40 years since the inception of the modern Civil Rights Movement, despite the passage of nearly 50 years since the inception of the so-called "second wave of feminism" (Lear, 1968), and despite the passage of nearly 40 years since the inception of the gay rights movement, these patterns persist and, in some cases, are worse now than previously. Grassroots and legislative efforts to bring about equality among persons of different backgrounds have led to many successes over the years. But our research clearly shows that they have not led to greater representation in the realm of children's media as measured by animated cartoon content.

If there is a bright spot to be found in our data, it comes in the form of the messages that are conveyed when cartoons *do* portray socially-devalued out groups. Overall, racial minority group members were portrayed in much the same way that Caucasians were. Although some stereotyping was identified during the earliest years of our research sample (see Klein & Shiffman, 2006, for further information), on balance, when examined over time, Caucasians, Native Americans, African Americans, Latinos, and Asians were portrayed quite similarly to one another. When it came to gender and age, most of the differences we found actually favored the "out groups." Female characters were more intelligent, less antisocial, and more likely to be "good guys" when compared to their male counterparts. Older adults were more intelligent and more likely to be "good guys" compared with their younger counterparts, and they were portrayed similarly to their child, adolescent, and adult counterparts on most other dimensions. In other works (Klein, Shiffman, & Welka, 1996, 2000), we have addressed in much more detail gender- and age-related content of animated cartoons; we encourage readers to consult those works for further information. With respect to the present article, however, we simply wish to point out that socially disenfranchised groups tend not to be portrayed badly when they are shown in animated cartoons. Their portrayals are either comparable to or, on many dimensions, better than those provided for members of the culturally valued groups. The problem, as we see it, is that these messages are comparatively few in number. Consequently, they are not numerous enough to overshadow the messages that animated cartoons inherently provide about the value of certain groups when they underrepresent or symbolically annihilate them.

REFERENCES

Akers RL (1973). Deviant behavior. Belmont, CA: Wadsworth.

Aubrey JS & Harrison K (2004). The gender-role content of children's favorite television programs and its links to their gender-related perceptions. Media Psychology, 6, 111–146.

Bandura A (1971). Social learning theory. New York: General Learning Press.

Cole J (1997). The UCLA television violence report 1996. Los Angeles: UCLA Center for Communication Policy.

Coltraine S & Messineo M (2000). The perpetuation of subtle prejudice: Race and gender imagery in 1990s television advertising. Sex Roles, 42, 363–389.

Eschholz S Bufkin J, & Long J (2002). Symbolic reality bites: Women and racial/ethnic minorities in modern film. Sociological Spectrum, 22, 299–334.

Fouts G & Inch R (2005). Homosexuality in TV situation comedies: Characters and verbal comments. Journal of Homosexuality, 49, 35–45. [PubMed: 16048884]

Gerbner G & Gross L (1976). Living with television: The violence profile. Journal of Communication, 26, 173–199. [PubMed: 932235]

Gibson C &Jung K 2002). Historical census statistics on population totals by race, 1790 to 1990, and by Hispanic origin, 1790 to 1990, for the United States, regions, divisions, and states. Washington, DC: U.S. Census Bureau.

Glascock J & Preston-Schreck C (2004). Gender and racial stereotypes in daily newspaper comics: A time-honored tradition? Sex Roles, 51, 423–431.

Greenberg BS (1982). Television and role socialization: An overview In Pearl D, Bouthilet L, &Lazar J(Eds.), Television and behavior: Ten years of scientific progress and implications for the eighties. Volume II: Technical reviews (pp. 179–190). Rockville, MD: National Institute of Mental Health.

Harwood J & Anderson K (2002). The presence and portrayal of social groups on prime-time television. Communication Reports, 15, 81–97.

Jason LA & Fries M (2004). Helping parents reduce children's television viewing. Research on Social Work Practice, 14, 121–131.

Klein H & Shiffman KS (2005). Thin is 'in' and stout is 'out': What animated cartoons tell viewers about body weight. Eating and Weight Disorders, 10, 107–116. [PubMed: 16114224]

Klein H & Shiffman KS (2006). Race-related content of animated cartoons. Howard Journal of Communications, 17, 163–182.

Klein H, Shiffman KS, & Welka DA (1996). How animated cartoons produced between 1930 and the present have portrayed the elderly. Paper presentation at the annual meeting of the Society for the Study of Social Problems, New York City, 8 15–17.

Klein H, Shiffman KS, & Welka DA (2000). Gender-related content of animated cartoons, 1930 to the present. Advances in Gender Research, 4, 291–317.

Lauzen MM & Dozier DM (2005). Maintaining the double standard: Portrayals of age and gender in popular films. Sex Roles, 52, 437–446.

Lear MW (1968, 3 10). What do these women want? The second feminist wave New York Times Magazine, pp. 24–25, 50–62.

Lenberg J (1991). The encyclopedia of animated cartoons. New York: Facts on File.

Maltin L (1980). Of mice and magic: A history of American animated cartoons. New York: Plume.

McConatha JT, Schnell F, & McKenna A (1999). Description of older adults as depicted in magazine advertisements. Psychological Reports, 85, 1051–1056. [PubMed: 10672769]

McDonald J (2007). Polynomial regression. Retrieved on 11 19, 2007 http://udel.edu/~mcdonald/statcurvreg.html.

McWhirter D, Sanders S, & Reinisch J (Eds.). (1990). Homosexuality/heterosexuality. New York: Oxford University Press.

Merskin D (1998). Sending up signals: A survey of Native American media use and representation in the mass media. Howard Journal of Communications, 9, 333–345.

Mosher W, Chandra A, & Jones J (2005). Sexual behavior and selected health measures: Men and women 15–44 years of age, United States, 2002. Hyattsville, MD: National Center for Health Statistics.

Ohye BY & Daniel JH (1999). The "other" adolescent girls: Who are they? In Johnson NG & Roberts MC (Eds.), Beyond appearance: A new look at adolescent girls (pp. 115–119). Washington, DC: American Psychological Association.

Paik H & Comstock G (1994). The effects of television violence on antisocial behavior: A meta-analysis. Communication Research, 21, 516–546.

Pedhazur EJ (1982). Multiple regression in behavioral research: Explanation and prediction (2nd ed.). New York: Holt, Rinehart, and Winston.

Sell RL, Wells JA, & Wypij D (1995). The prevalence of homosexual behavior and attraction in the United States, the United Kingdom, and France: Results of national population-based samples. Archives of Sexual Behavior, 24, 235–248. [PubMed: 7611844]

Shrum LJ, Wyler RS, Jr., & O'Guinn TC (1998). The effects of television consumption on social perceptions: The use of priming procedures to investigate psychological processes. Journal of Consumer Research, 24, 447–458.

Signorielli N & Morgan M (1990). Cultivation analysis: New directions in media effects research. Newbury Park, CA: Sage Publications.

Singer MI, Slovak K, Frierson T, & York P (1998). Viewing preferences, symptoms of psychological trauma, and violent behaviors among children who watch television. Journal of the American Academy of Child and Adolescent Psychiatry, 37, 1041–1048. [PubMed: 9785715]

Spitzer BL, Henderson KA, & Zivian MT (1999). Gender differences in population versus media body sizes: A comparison over four decades. Sex Roles, 40,545–565.

Stern SR (2005). Self-absorbed, dangerous, and disengaged: What popular films tell us about teenagers. Mass Communication and Society, 8, 23–38.

Tiggeman M & Pickering AS (1996). Role of television in adolescent women's body dissatisfaction and drive for thinness. International Journal of Eating Disorders, 20, 199–203. [PubMed: 8863073]

Tuchman G (1978). The symbolic annihilation of women by the mass media In Tuchman G, Daniels AK, & Benet J (Eds.), Hearth and home: Images of women in the mass media (pp. 3–38). New York: Oxford University Press.

U.S. Census Bureau. (2000). Statistical abstract of the United States. Washington, DC: U.S. Government Printing Office.

White JD (2002). Bisexuals who kill: Hollywood's bisexual crimewave, 1985–1998. Journal of Bisexuality, 2, 41–54.

Williams TM, Zabrack ML, & Joy LA (1982). The portrayal of aggression on North American television. Journal of Applied Social Psychology, 12, 360–380.

Woodard EH, IV. (1999 The 1999 state of children's television report: Programming for children over broadcast and cable television. Philadelphia: Annenberg Public Policy Center of the University of Pennsylvania.

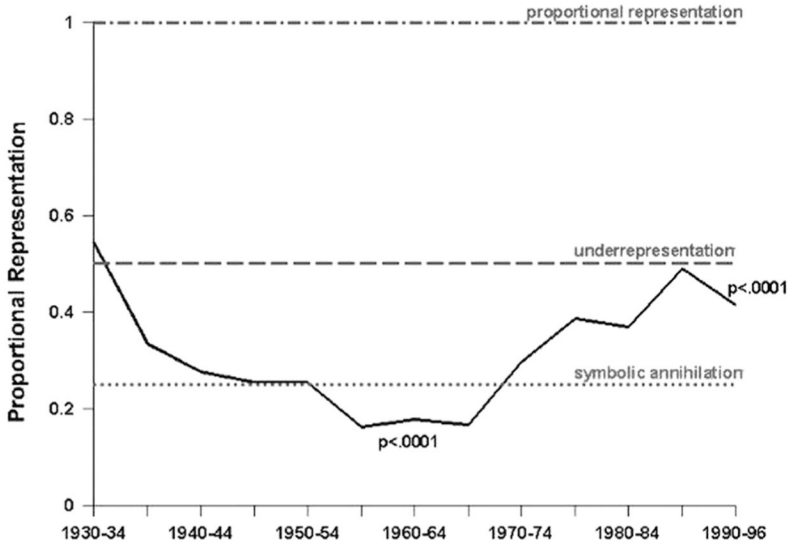

FIGURE 1.
Representation of female characters.

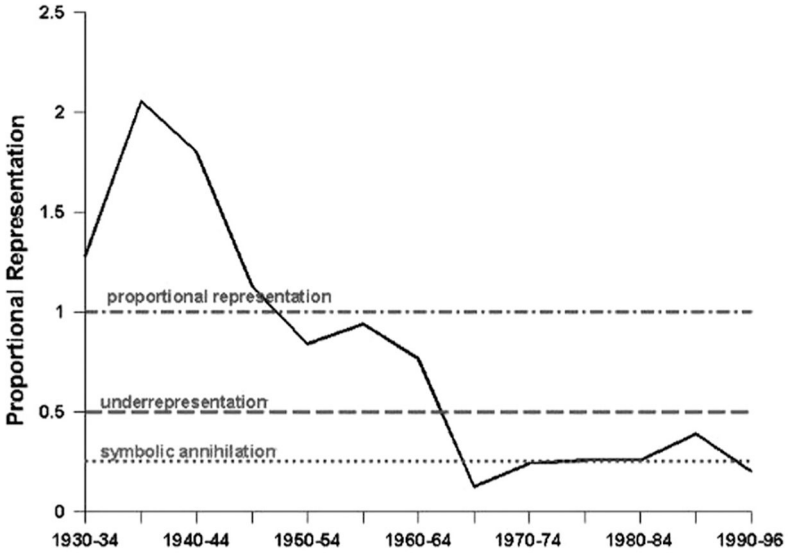

FIGURE 2.
Representation of racial minorities.

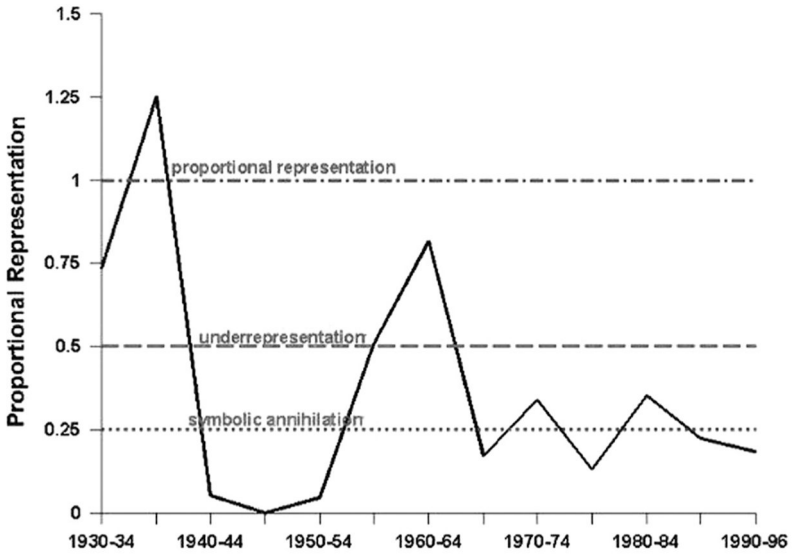

FIGURE 3.
Representation of elderly characters.