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Messages about Physical Attractiveness in Animated Cartoons

Hugh Klein, Ph.D. and

Kensington Research Institute, Silver Spring, Maryland

Kenneth S. Shiffman, M.A.

Cable News Network, Atlanta, Georgia

Abstract

Relying upon a content analysis of one specific type of medium to which young people are exposed beginning at an early age, on a regular basis, and for many years (i.e., animated cartoons), the present study examines what types of messages are provided about being physically unattractive, physically attractive, and ordinary looking. This research concerns itself with identifying the characteristics that tend to be associated with being good looking or unattractive, and then discussing the implications of the findings. Results indicate that many variables were found to differ based on cartoon characters' physical attractiveness, including gender, age, intelligence, body weight, emotional states experienced, prosocial behaviors, antisocial behaviors, and overall goodness/badness. Whenever differences were found, the overriding tendency was for cartoons to provide positive messages about being attractive and negative messages about being unattractive.

Keywords

animated cartoons; media content; physical attractiveness; portrayals; messages

In recent years, a considerable amount of research has been conducted on the impact of the media with respect to promoting “ideals” for physical appearance among people exposed to these media. Most studies published on this subject have focused on characters' weight-related appearance, and have concluded that the print, broadcast, and electronic media all emphasize what has come to be termed the “thin standard” or the “thin ideal.” That is, the media promulgate the messages that it is good to be thin and that being thin is associated with a variety of positive traits such as popularity, likability, being active, intelligence, and so forth (Malkin, Wornian, & Chrisler, 1999; Nemeroff et al., 1994; Petrie et al., 1996; Spitzer, Henderson, & Zivian, 1999). A number of researchers have studied the effects of exposure to such media messages, almost always concluding that internalization of the thin ideal leads to problems such as decreased satisfaction with one's own body (i.e., poorer

PLEASE ADDRESS ALL CORRESPONDENCE REGARDING THIS MANUSCRIPT TO: Hugh Klein, Ph.D., Kensington Research Institute, 401 Schuyler Road, Silver Spring, MD 20910, telephone: 301-588-8875, fax: 301-588-8875, hughk@aol.com.

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body image), reduced self-esteem, and eating and weight disorders (Halliwell & Dittmar, 2004; Hargreaves & Tiggemann, 2003; Lokken, Worthly, & Trautmann, 2004; Yamamiya et al., 2005). Studies have shown that these effects are greater for women and girls than they are for men and boys (Hargreaves & Tiggemann, 2004, 2003), but researchers who have examined both males and females in their studies have been quick to point out that adverse effects are, indeed, observed for males as well (Hargreaves & Tiggemann, 2004).

One intriguing thing about the “physical appearance in the media” literature, though, is that researchers have tended to combine two conceptually very different constructs into one: namely, physical (perhaps better termed facial or overall) attractiveness and body weight. That is, when discussing media messages about appearance, researchers overwhelmingly have treated physical attractiveness and weight as if they were one and the same, reporting on the internalization of cultural appearance standards as if they represented only weight-based expectations. In truth, however, they are not one and the same (although we readily concede that contemporary American cultural norms are such that the two are quite intertwined in many people’s minds). In their study of the impact of advertisements on body image, Halliwell and Dittmar (2004) noted the fact that researchers consistently have confounded the effects of thinness and attractiveness. Usually overlooked, however, is the fact that it is entirely possible to be overweight and still very good looking, or to be thin and unattractive. In the present study, we differentiate between physical appearance (i.e., looks or attractiveness) and body weight, and focus on the former.

What little research has been conducted specifically on the subject of appearance as differentiated from weight has generally concluded that, in the media, attractiveness is portrayed as a good thing. Indeed, in their research focusing on internet-based magazines (what some people now term “e-zines”) targeting female youths, Labre and Walsh-Childers (2003) concluded that one of the main media messages provided is that being attractive is not merely a good thing, but actually is a requirement for social acceptance in contemporary American society. Recent research focusing on magazine content has shown that there is a preponderance of muscular male images, particularly in magazines targeting male audiences (Frederick, Fessler, & Haselton, 2005) and that magazines often promote a consistent message about the ideal male body as being one that is “built” (Petrie et al., 1996). In their study of appearance-related content on prime-time television, Greenberg and colleagues (2003) concluded that overweight characters were less likely to be considered attractive than those who were not overweight, and they were less likely to interact with romantic partners or display physical affection. Harwood and Anderson (2002) also examined appearance-related messages in prime-time television programs aired during the 1999 broadcast season. They concluded that males were less likely to be attractive than were females; that older characters were less likely to be attractive than their younger counterparts; and that Latinos were more likely to be shown as unattractive when compared to characters of other racial groups. Based on their study of several decades of top box office grossing films, Smith, McIntosh, and Bazzini (1999) concluded that, on a variety of measures, attractive characters were portrayed more favorably than unattractive characters were. Of particular note, these researchers found that older women were portrayed especially negatively when compared to other age-gender groups (Bazzini et al., 1997).

In their study of children's videos and books, Herbozo and colleagues (2004) discovered that messages emphasizing the importance of physical appearance are present in many children's videos, but not nearly as often in the books they read. Baker-Sperry and Grauerholz (2003) examined the content of Brothers Grimm fairy tales and found that the ones that have survived over the years (e.g., Cinderella, Snow White, Sleeping Beauty) were the ones that placed the greatest emphasis on female beauty, whereas those that did not have such an emphasis have become less well-known as time has passed. Rumble and Cash (2000) examined physical attractiveness among 120 characters appearing in 23 feature-length Walt Disney cartoons spanning a six-decade period. The authors discovered that protagonists were shown to be more attractive than antagonists, and in particular female protagonists were depicted as more attractive than male protagonists were. Moreover, protagonists were portrayed as being thinner than antagonists, a finding that was especially true for female protagonists when compared with their male counterparts. The latter three studies are particularly noteworthy vis-a-vis the present study, as they were the only research studies we found that specifically addressed attractiveness issues in media targeting young people.

Such messages about the importance of being attractive and of the "types" of people who are considered to be attractive and unattractive are of concern because they present people with repeated messages about physically and psychologically unhealthy notions of 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, for example, Mares & Woodard, 2005; Schiappa, Gregg, & Hewes, 2004; Shrum, Wyler, & O'Guinn, 1998) while at the same time the media reflect the types of beliefs, attitudes, and behaviors characteristic of many persons. There also 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 than their peers who are exposed less significantly to media messages (Agha, 2003; Shrum, 1999; Shrum, Wyler, & O'Guinn, 1998; Singer et al., 1998).

Conceptually, this makes perfect sense and there is a substantial body of theoretical work in the sociological, psychological, and media studies fields to account for-and to predict 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—including others appearing in the mass media—doing or saying. As Kunkel et al. (1996: I-6) put it, "through the observation of mass media models the observer comes to learn which behaviors are 'appropriate'—that is, which behaviors will later be rewarded, and which will be punished." Accordingly, social learning theory would predict that people of all ages (and young people in particular) will learn a great deal about physical appearance, social expectations for what is good looking versus ugly, and the social consequences of being unattractive just from being exposed to attractiveness-related media content.

As another example, cultivation theory (Gerbner & Gross, 1976; Signorielli & Morgan, 1990) states that media viewers' perceptions of social reality will be shaped by extensive and cumulative exposure to media-provided messages. This theoretical model assumes that

people develop beliefs, attitudes, and expectations about the real world based on what they see and hear on television, on video, in film, in magazines, etc. Subsequently, they use the beliefs, attitudes, and expectations they have developed to make decisions about how they will behave in real-world settings and situations. Again, Kunkel et al. (1996: I-11, I-13) put it well when they stated, “The media, in particular television, communicate facts, norms, and values about our social world. For many people television is the main source of information about critical aspects of their social environment. ... Whether television shapes or merely maintains beliefs about the world is not as important as its role in a dynamic process that leads to enduring and stable assumptions about the world.” In the context of the study of attractiveness-related media content, then, cultivation theory would posit that media messages serve as agents of socialization regarding what to think about prettiness, handsomeness, and so forth. This would be particularly true for young viewers who are exposed rather heavily to such media messages through the types of programming that they tend to view. Given the types of messages that the media provide about physical attractiveness, cultivation theory would predict that the cumulative effect of exposure to these messages would provide young people with beliefs and attitudes that, ostensibly, reinforce the notions that being attractive is expected and that there will be social consequences to pay if one’s appearance does not conform to the media-promulgated standards, and so forth.

Heeding these theoretical models’ tenets and the aforementioned research findings, the present study entails an examination of physical appearance-related messages in a medium that, we contend, is likely to provide young people with some of their earliest notions regarding attractiveness and appearance-related standards/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, attractiveness-related messages provided by this particular medium are likely to be influential in the initial stages of developing beliefs and attitudes about appearance. 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 appearance-related beliefs and attitudes, while helping to shape relevant behaviors through the repeated and consistent attractiveness-related 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 the present study, we differentiate between physical attractiveness and body weight, and address ourselves to the former. We begin by examining the characteristics that tend to be associated with being physically attractive versus ordinary-looking or unattractive. We then discuss the implications of our findings and elaborate briefly upon some steps that might be taken in the future to provide viewers with what we consider to be more-positive, less-stereotyped physical appearance-related messages.

Method

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). This eliminates from the present study such types of animation as claymation (e.g., Gumby and Pokey, the California Raisins), pixillation (the type of animation usually seen at the end of *The Benny Hill Show*), and puppet animation (e.g., *Davey and Goliath*, George Pal's *Puppetoons*). Animated cel cartoons were selected for this research because this is by far the most common type of animated genre seen on television, in films, and on the home video/DVD market, and so that a simple, standardized type of animated cartoon could be studied in conjunction with this research.

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. These studios include Warner Brothers, Walt Disney, Terrytoons, Hanna Barbera, Walter Lantz, Nelvana, Filmation, UPA, Ub Iwerks, and numerous others in operation during the years under study. 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 in a wide variety of ways: by contacting animation fans and collectors and having them make copies of some of their cartoons for us, visiting film archives and repositories and viewing cartoons in their libraries/holdings on site, obtaining copies of the needed 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.

The origination date for this research (1930) was chosen for four reasons: (1) many major animation studios had begun operations by that time, (2) the era of silent cartoons had virtually ended, (3) cartoons produced prior to 1930 are not very accessible today, and (4) many cartoons produced during the 1930s are still broadcast on television and/or available for viewing on home video. 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 about physical appearance. 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 ($n=8$) implemented the decision-making procedures in a similar manner, intercoder reliability coefficients were calculated periodically throughout the project, based on approximately 5% sampling of the cartoons studied. Reliability estimates consistently were above .80 for all major measures, and were at least .90 for all of the variables used in the analyses reported in this article, indicating a very high level of intercoder reliability for this research.

The present study is based on data collected for all major characters ($N= 4,313$) appearing in each cartoon studied, regardless of whether the characters in question were human characters, animals, personified inanimate objects (e.g., cars with the ability to growl or dance, telephone poles given human-like abilities to see or hear or sing), monsters, ghosts, etc. Minor characters ($n= 26,853$) were excluded from the study principally because of their overall lack of consequential impact upon storylines and the brevity of their appearance on screen. Many such characters, for example, appeared on screen for only one second or just a few seconds, as people (or animals) in a crowd. The dataset contains a great deal of information about each major character's gender, age, race, ethnicity, marital status, level of intelligence, level of physical attractiveness, body weight, physique, occupational status, level of goodness or badness, and other demographic-type and descriptive information. There is also extensive data about the types of social and leisure-time/recreational activities in which characters engaged, the emotions they experienced, and their involvement with a variety of different types of legal and illegal drugs. In addition, this dataset contains information about the number of acts of violence, aggression, and prosocial behaviors (and limited information about the types of these behaviors involved) that the characters committed.

Although some well-known characters (e.g., Bugs Bunny, Mickey Mouse, Popeye) appeared in more than one of the cartoons included in the study's sample, each portrayal in each separate cartoon was treated as a distinct entity. The decision to do this rather than considering each character's appearance only one time was made because, in different cartoons, it was not at all uncommon for the same character to be portrayed rather differently, both physically and behaviorally.

Operational Definitions of Some Key Concepts

Perhaps the most important operational definition to provide for this study is that used for classifying characters' level of physical attractiveness. In this research, every character's physical attractiveness was classified either as "ugly, unappealing, or below average in looks" or "average or normal looking" or "good looking, pretty, handsome, or above-average in attractiveness." Coders were instructed to code all characters as "average or normal looking" *by default* unless the cartoon provided specific, unmistakable reasons (based on the character's appearance) to select one of the other physical attractiveness classifications. The benchmark that coders were instructed to use for classifying a character as being something other than "average or normal looking" was that the character was "supposed to be obviously ugly, unappealing, or 'bad looking'" or "supposed to be obviously pretty, good looking, or attractive." Coders were given specific instructions to bear in mind that "it is only a character's objective appearance that counts when we code physical attractiveness, *not* how the character himself/herself/itself sees himself/herself/itself." Cartoons are rarely subtle in the messages they try/wish to convey; so utilizing these coding rules for classifying characters' physical attractiveness was, in actuality, quite easy for coders to apply in a consistent manner.

In this study, we collected the data reported in this manuscript only for major characters. We felt that it was important to distinguish between major and minor characters because the former have a much greater and much more consequential impact upon cartoons' storylines and messages, whereas the latter do not. Therefore, we adopted operational definition criteria that would enable the two character types (i.e., major and minor) to be differentiated easily and in a meaningful way. 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 the conditions stipulated in one or more of the subsequent rules were met. Second, if a character appeared in an average of at least two camera cuts for each complete minute or additional partial minute of the cartoon's running time, that was sufficient to label it a "major" character. For example, if a cartoon had a total running time of 8 minutes and 10 seconds, a character would have to appear at least 18 times [i.e., in 18 or more camera cuts, (that is, two per minute or partial minute of running time, multiplied by nine minutes/partial minutes increments)] throughout the duration of the cartoon in order to be considered "major" using this criterion. Third, a character would be considered "major" if it spoke an average two sentences or phrases counting as sentences per minute or partial minute of the cartoon's total running time. Fourth, a character would be considered "major" if it had an average of three or more camera cuts in which it appeared and sentences or phrases counting as sentences per minute of the cartoon's running time. This criterion was implemented to take into account that many consequential characters in the cartoons do not appear a lot and do not say a lot, but their cumulative visual and verbal presence in the cartoon merits "major" character status even though the two previous rules would have prevented such a designation from being made. Finally, a character would 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*. Generally speaking, although these rules may seem to be somewhat

convoluted, determining whether a character was a major or minor one was an easy, straightforward, and relatively-obvious process.

Analysis

In these analyses, the dependent variable, physical attractiveness, is a categorical measure. For analytical purposes, chi-square tests were used to provide comparisons when the independent variable was categorical in nature or ordinal with fewer than five response categories (e.g., race, age group, body weight classification). In instances in which we believed that they could be particularly useful and illustrative, odds ratios (*ORs*) and their attendant 95% confidence intervals (*CI₉₅*) were computed. Odds ratios were selected for many of these analyses because they facilitated direct comparisons of the messages provided about good-looking or unappealing-looking characters, whereas other statistical tests do not lend themselves so easily to such comparisons and interpretation. For variables that were continuous in nature (e.g., number of violent acts, number of prosocial behaviors, overall activity level), analysis of variance was used and *post hoc* paired-comparisons tests were used to examine intergroup differences based on physical attractiveness. In a few instances where it was most illustrative analytically to do so, physical attractiveness categories were collapsed so that attractive characters could be compared to those that were ordinary looking or unattractive, or so that unattractive characters could be compared to those that were better looking. In these instances, when the comparison measure was a continuous variable, Student's *t* tests were used for the analysis.

Due to the large sample size, we have chosen to adopt a more rigorous standard for attaining statistical significance than routinely would be the case. In this paper, results are reported as statistically significant whenever $p < .01$ and as marginally significant whenever $p < .05$. Almost all of the intergroup differences observed were of sufficient magnitude that they far exceeded the $p < .01$ criterion; indeed, most are at or near $p < .0001$. We acknowledge that we have conducted a fairly large number of statistical tests, and some readers may wish to apply a Bonferroni correction to the data presented in each of the subsections presented below, in the Results section. Accordingly, for the sections in which results pertaining to descriptive / demographic differences and emotional states are presented, given the number of statistical tests conducted, the Bonferroni-corrected level of statistical significance for these relationships would be $p < .001$ if a desired level of assurance of $p < .01$ were selected, or $p < .005$ if a desired level of assurance of $p < .05$ were chosen. In the subsection presenting the findings pertaining to activities (see below), the Bonferroni-corrected level of statistical significance for these relationships would be $p < .0005$ if a desired level of assurance of $p < .01$ were selected, or $p < .0024$ if a desired level of assurance of $p < .05$ were chosen. Finally, in the subsection in which prosocial and antisocial behavior-related findings are presented, the Bonferroni-corrected level of statistical significance for these relationships would be $p < .0011$ if a desired level of assurance of $p < .01$ were selected, or $p < .0055$ if a desired level of assurance of $p < .05$ were chosen.

Results

Differences Based on Demographic and Descriptive Characteristics

Table 1 presents summary findings for the variables examined vis-a-vis physical attractiveness, and only variables that met the Bonferroni-corrected levels of statistical significance are included there. Females were far more likely than males to be shown as being physically attractive ($OR = 6.77$, $CI_{95} = 6.14 - 7.52$, $p < .0001$). An inverse association was found for age and physical attractiveness. Specifically, among characters that were shown to be unattractive, 11.6% were youths; among those that were average looking, 21.7% were children or adolescents; among those shown to be physically appealing, 28.7% were youths [$\chi^2(2) = 17.52$, $p < .0002$]. Put another way, compared to their adult and elderly counterparts, youths were less than half as likely to be shown as being unattractive ($OR = 0.46$, $CI_{95} = 0.30 - 0.72$, $p < .0004$) and about 50% likelier to be shown as being above average in attractiveness ($OR = 1.51$, $CI_{95} = 1.07 - 2.33$, $p < .02$). Physical attractiveness was not found to differ based on characters' race ($p < .35$). Physical attractiveness was found to be related to characters' height [$\chi^2(2) = 19.84$, $p < .0001$] such that with increasing height there was a greater likelihood of being portrayed as being less-than-attractive. Body weight and physical attractiveness were found to be related inversely with one another [$\chi^2(4) = 50.26$, $p < .0001$]. Overweight characters were nearly three times as likely as their underweight and normal weight counterparts to be shown as unattractive (19.7%, 8.2%, and 2.8%, respectively; $OR = 2.86$, $CI_{95} = 2.01 - 4.08$, $p < .0001$), whereas underweight characters were about twice as likely as their normal weight and overweight counterparts to be shown as attractive ($OR = 1.96$, $CI_{95} = 1.04 - 3.70$, $p < .004$). A strong relationship was found between physical attractiveness and physique [$\chi^2(4) = 487.97$, $p < .0001$]. Unattractive characters were more than seven times as likely as their ordinary-looking and good-looking counterparts to be shown to have a below-average body type (i.e., too skinny/scrawny or too flabby) ($OR = 7.11$, $CI_{95} = 5.01 - 10.09$, $p < .0001$), whereas attractive characters were more than 11 times as likely as their unattractive and ordinary-looking counterparts to be shown as having an above average body type (i.e., "built" or curvaceous) ($OR = 11.27$, $CI_{95} = 8.18 - 15.51$, $p < .0001$). Similarly, a strong relationship was noted between physical attractiveness and intelligence [$\chi^2(4) = 69.10$, $p < .0001$]. Unattractive characters were far more likely to be shown as being unintelligent ($OR = 3.69$, $CI_{95} = 2.41 - 5.67$, $p < .0001$) whereas attractive characters were far more likely to be shown as being smart ($OR = 3.09$, $CI_{95} = 1.89 - 5.05$, $p < .0001$). The more attractive characters were, the less likely they were to be shown to have any types of physical problems (e.g., speech impediment, hearing impaired, etc.). Specifically, 21.7% of the characters who were unattractive were portrayed as having some type of physical problem, compared to 12.1% of those that were average looking and 5.9% of those that were good looking [$\chi^2(2) = 25.96$, $p < .0001$]. The more attractive a character was, generally speaking, the more likely that character was to be shown as employed [$\chi^2(2) = 7.96$, $p < .02$]. Among unattractive characters, 18.6% held some type of job, versus 23.4% of the average-looking and 30.3% of the attractive characters. Moreover, among employed characters, physical attractiveness was also found to be associated with job performance. Characters that were shown to be good at their jobs were nearly four times as likely as those who performed their jobs with below-average or average competency to be shown as physically attractive ($OR = 3.85$, $CI_{95} = 2.11 - 7.02$, $p < .0001$).

Differences Based on Emotional States

In terms of the emotions they displayed and experienced, once again several differences were found based on cartoon characters' physical attractiveness. For example, the more attractive a character was, the more likely he/she/it was to experience happiness [$\chi^2(2) = 20.33, p < .0001$]. This was particularly noteworthy when good looking characters were compared to their ugly and ordinary-looking counterparts, as the former were more than twice as likely as the latter to demonstrate happiness ($OR = 2.23, CI_{95} = 1.17 - 4.26, p < .0001$). As another example, the more attractive a character was, the less likely he/she/it was to experience anger [$\chi^2(2) = 45.78, p < .0001$]. Specifically, unattractive characters were two and a half times more likely than average-looking and attractive characters to experience anger ($OR = 2.56, CI_{95} = 1.89 - 3.45, p < .0001$). As a third example, the more attractive characters were, the more likely they were to be portrayed as loving [$\chi^2(2) = 92.27, p < .0001$]. The most noteworthy difference was observed for physically attractive characters versus their unattractive and ordinary-looking counterparts, with the former being four times more likely than the latter to be shown as loving ($OR = 3.97, CI_{95} = 2.92 - 5.38, p < .0001$).

Differences Based on Activities

Cartoon characters' physical attractiveness was also found to be related to how they spent their time. Overall, the more attractive a character was, the greater the number of activities in which he/she/it was shown to be engaged [$F(2,4311) = 8.92, p < .0001$]. Overall, attractive characters engaged in nearly twice as many different types of activities as unattractive characters did, with average-looking characters falling squarely in the middle of the two extremes. Significant differences were found for a few specific types of activities. Compared to those who were unappealing or ordinary-looking, attractive characters were more than twice as likely to dance ($OR = 2.43, CI_{95} = 1.56 - 3.77, p < .0001$), more than four times as likely to groom themselves ($OR = 4.18, CI_{95} = 2.27 - 7.70, p < .0001$), more than twice as likely to take care of a pet ($OR = 2.11, CI_{95} = 1.01 - 4.43, p < .05$), and more than three times as likely to take a vacation ($OR = 3.09, CI_{95} = 1.52 - 6.31, p < .002$).

Differences in Prosocial and Antisocial Behaviors

Finally, numerous differences in characters' involvement in romantic, prosocial, and antisocial activities were observed based on whether they were unattractive, ordinary looking, or attractive. For example, attractive characters demonstrated more than four times as much flirting with other characters as their unappealing and average-looking counterparts did (0.22 versus 0.05 acts, $t = 6.19, p < .0001$). The former also engaged in more than four times as much romantic-type physical affection like kissing and hugging as the latter (0.33 versus 0.08 acts, $t = 5.01, p < .0001$). Not surprisingly, physically unattractive characters were half as likely as their average-looking and good-looking counterparts to engage in prosocial acts of any kind ($OR = 0.49, CI_{95} = 0.35 - 0.69, p < .0001$) and, on average, they engaged in about half as many prosocial acts (0.33 versus 0.59 acts, $t = 3.32, p < .0009$). Conversely, attractive characters complimented others on their appearance or performance more than twice as much as their less-good-looking peers did (0.24 versus 0.11 acts, $t = 3.93, p < .0001$), and they demonstrated somewhat more concern for others' emotional or physical well-being (0.21 versus 0.13 acts, $t = 2.06, p < .04$).

Perhaps the greatest differences here, though, were found with respect to antisocial behaviors. First and foremost, the more attractive a character was, the less likely he/she/it was to engage in an antisocial act of any kind. Whereas 48.9% of the attractive characters performed at least one antisocial act, this was true of 59.8% of the ordinary-looking characters and 79.9% of the unattractive characters [$\chi^2(2) = 47.30, p < .0001$]. This difference was perhaps most obvious when violence was considered: Unattractive characters were more than twice as likely as their ordinary-looking and good-looking counterparts to perpetrate at least one violent act ($OR = 2.40, CI_{95} = 1.82 - 3.15, p < .0001$). Coinciding with this, unattractive characters engaged in 50% more acts of physical aggression than their better-looking peers (0.75 versus 0.49 acts, $t = 3.23, p < .002$) and nearly twice as many acts of violence (2.68 versus 1.45 acts, $t = 5.26, p < .0001$). When all types of antisocial behaviors (i.e., lying and deceitfulness, physical aggression, verbal aggression, and violence) were considered together, physically unattractive characters were nearly twice as antisocial as their ordinary-looking and good-looking counterparts (3.99 versus 2.43 acts, $t = 5.58, p < .0001$). In terms of their overall classification as a “good character” versus a “bad character” (what many people colloquially refer to as “good guys” and “bad guys”), physically unattractive characters were nine times more likely to be deemed “bad characters” than were characters whose appearance was considered more appealing ($OR = 9.03, CI_{95} = 5.38 - 15.17, p < .0001$) whereas physically attractive characters were nearly three times as likely to be deemed “good characters” when compared to their less-attractive counterparts ($OR = 2.79, CI_{95} = 1.84 - 4.21, p < .0001$).

Discussion

Before discussing the implications of our main 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 or less, thereby excluding longer-form animated cartoons from consideration. We do not know whether or not short-form 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 the longer cartoons would be a worthwhile endeavor for future researchers to undertake. Second, our sample ends during the middle-1990s. It would be helpful and, we believe, interesting 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 see different operational definitions of the key concepts used. There is no “gold standard” in content analysis research with regard to defining major versus minor characters, physically attractive versus unattractive 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 as with any content analysis study, there is no way to know the extent to which the use of different definitions might have led to different research findings. Fourth, some of the major characters included in this research were neither humans nor animals, but rather personified inanimate objects brought to life. This may cause some readers concern about the

applicability of attractiveness-related messages deriving from the portrayal of these characters. This concern, however, ought to be minimal, as the total number of such characters whose physical attractiveness was coded as anything other than the default of “average / ordinary looking” was only 7, only 0.2% of the entire research sample. Such characters had, at best, a minimal impact upon the research findings.

Despite these potential limitations, we still believe that the present research has much to contribute to our understanding of cartoons’ messages about physical attractiveness. Without a doubt, the animated cartoons studied in conjunction with this research communicated a clear, consistent message with regard to attractiveness: Being attractive is a very good thing. On virtually all dimensions examined, socially-desired traits were associated with being attractive and socially-disapproved characteristics were associated with being ordinary looking and/or unattractive. For example, our culture values youthfulness over old age; youths were less likely to be unattractive. As another example, our culture values thinness over being overweight; overweight characters were more likely to be shown as unattractive whereas thin characters were more likely to be depicted as good looking. Intelligence is also prized in our society and, once again, below-average intelligence was associated with the less-valued group: physically-unattractive characters. Even when it comes to emotional states, cartoons reinforce the very same types of messages. We like being around people who are happy and loving, and dislike being around persons who display anger. The former traits were depicted to be more typical of attractive characters than of those that are unattractive or ordinary looking, whereas the latter was more closely associated with being physically unappealing. Compounding these findings, we also discovered that attractive characters were more likely to perform prosocial acts—that is, to do things that were intended specifically to benefit others—than other characters were, and conversely, that unattractive characters were more likely to engage in antisocial acts when compared to others. When the overall “goodness/badness” dimension was examined, physically unattractive characters were far more likely than others to be considered “bad characters” whereas physically attractive characters were more likely than others to be considered “good characters.” Taken together, all of these findings add up to a pretty convincing overarching message about the subjective qualities of attractiveness and ugliness: the former is good, whereas the latter is not.

Another point we wish to discuss from this research pertains to our weight-related findings. Clearly, and not unexpectedly, a strong association was found between cartoon characters’ body weight and their purported level of attractiveness. Overweight characters were nearly three times as likely as others to be shown as unattractive whereas thin/underweight characters were nearly twice as likely as others to be depicted as above-average in attractiveness. In another published work (Klein & Shiffman, 2005), we addressed cartoons’ messages about body weight, and showed that being overweight was a bad thing whereas being underweight was a good thing. Our findings for physical attractiveness complement that research as well as the work of other scholars (Malkin, Wornian, & Chrisler, 1999; Nemeroff et al., 1994; Petrie et al., 1996; Rumble & Cash, 2000; Spitzer, Henderson, & Zivian, 1999). We would like to point out, however, that while the relationship between body weight and physical attractiveness was a strong one, it was not a perfect one. Indeed, many characters that were underweight or thin were not shown to be attractive, and some that were overweight were not shown to be unattractive. This highlights the need for media researchers

to differentiate between body weight and physical attractiveness, as Halliwell and Dittmar (2004) recently noted.

In conclusion, our research is consistent with the many published studies (cited earlier) that have shown positive characteristics to be associated with attractiveness and negative characteristics associated with being unattractive. Our work contributes to this corpus by demonstrating that these types of messages are supplied in a medium to which people are exposed beginning at a very early age, for many years, and on a repeated basis throughout those years of exposure.¹ Animated cartoons, we contend, both reflect and shape social values about physical attractiveness, and help to form children's initial notions of what it means to be pretty, handsome, ordinary looking, or unattractive. Through the repeated exposure to such consistently-negative messages about being unattractive and such consistently-positive messages about being good looking, young people come to learn that it is good to be attractive and bad to be unattractive or ordinary looking. These messages, in turn, are reinforced by other media to which they are exposed (since those media, too, typically portray similar messages about physical attractiveness), by their peers, by their parents, and by other role models around them. The adverse effects of internalizing such messages about attractiveness have not been the subject of much scientific study, and this would be an area well worth exploring in future research. Work examining the impact of negative media messages on a similar construct—namely, body weight—has shown a link to problems like low self-esteem (Henderson-King, Henderson-King, & Hoffman, 2001; Wilcox & Laird, 2000), poor body image (Durkin & Paxton, 2002; Lin & Kulik, 2002), eating disorders (Murray, Touyz, & Beumont, 1996; Stice, 1998, 2002; Thomsen, McCoy, & Williams, 2001), and depression (Durkin & Paxton, 2002; Pinhas et al., 1999), among others. Indeed, research has shown a link between people's perceptions of others' body type and the types of personality characteristics that they expect such persons to demonstrate (Powell, Tutton, & Stewart, 1974; Stewart, Tutton, & Steele, 1973). Comparable effects are likely to exist where physical appearance stereotyping is concerned, too, but as mentioned above, this topic needs to be examined in future media effects research.

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¹Since this project's data facilitate analyses of changes over time, we also examined our data for trends in the portrayals of physical attractiveness over time. No consistent, linear patterning of results was noted, and attractive or unattractive characters were no more/less common at the end of the period covered by the research than they were at the beginning of the study period ($p < .42$). A curvilinear relationship was identified, such that attractive characters became less frequent for a few decades (1930s through the mid-1960s, $p < .0001$), then more frequent for awhile (until the early 1980s, $p < .0001$), and then less common again (until the mid-1990s, $p < .0001$).

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Table 1

Differences in Characters' Physical Attractiveness Based on Demographic Characteristics, Emotional States, Leisure-Time Activities and Home Projects, Romantic Activities, Prosocial Behaviors, and Antisocial Behaviors

Predictor Measure	Statistical Significance
DEMOGRAPHIC / DESCRIPTIVE CHARACTERISTICS	
Gender (female)	$p<.0001$
Age (children and adolescents)	$p<.0001$
Height (taller)	$p<.0001$
Body weight (heavier)	$p<.0001$
Physique (better built)	$p<.0001$
Intelligence (smarter)	$p<.0001$
Physical problems (does not have)	$p<.0001$
Job-related competency (greater)	$p<.0001$
EMOTIONAL / FEELING STATES DISPLAYED	
Happiness (happier)	$p<.0001$
Sadness (less sad)	$p<.004$
Anger (less anger)	$p<.0001$
Being loving or affectionate (more loving)	$p<.0001$
LEISURE-TIME ACTIVITIES AND HOME PROJECTS	
Total number of the following activities (more active)	$p<.0001$
Dancing	$p<.0002$
Personal grooming or hygiene	$p<.0001$
Taking a vacation	$p<.002$
ROMANTIC ACTIVITIES	
Flirting with other characters (more)	$p<.0001$
Physical expressions of romance or love (more)	$p<.0001$
PROSOCIAL BEHAVIORS	
Complimenting others' appearance or performance (more)	$p<.0002$
Total amount of prosocial behaviors demonstrated (more)	$p<.001$
ANTISOCIAL BEHAVIORS	
Perpetrating violence against others (less)	$p<.0001$
Total amount of antisocial behaviors demonstrated (less)	$p<.0001$