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# Gender representation in children's food and toy commercials

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GENDER REPRESENTATION IN CHILDREN'S FOOD  
AND TOY COMMERCIALS

A Thesis

Presented to

The Faculty of the School of Journalism and Mass Communications

San José State University

In Partial Fulfillment

of the Requirements for the Degree

Master of Science

by

Tiffany Taylor

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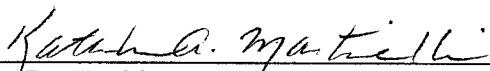
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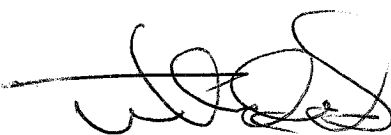
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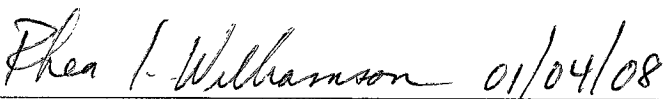
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## ABSTRACT

### GENDER REPRESENTATION IN CHILDREN'S FOOD AND TOY COMMERCIALS

by Tiffany Taylor

This thesis addresses commercials as they specifically pertain to children's food and their products. Content analysis is the method used to collect the data concerning gender representation in such commercials, examining who is interacting with the product, who is doing the talking and who is simply present. The 1453 commercials that were looked at were taken from the stations most widely available to the public: ABC, CBS, NBC, Fox, and CW. Of these only 422 were considered directed toward children based on the coding criteria. The coding that was done for each commercial takes into account whether they were boy-only, girl-only or gender neutral/mixed ads, based on their presence and interaction with the product. The results showed that not only were boy-only ads more prominent, but that when there was a mixed gender ad, more boys were present and had primary interaction with the product.

## ACKNOWLEDGMENTS

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## CHAPTER 1

### Introduction

“Trix are for kids,” but are they really for all kids? Like many others, this colorful, sugary cereal has a male character as its main promotional icon; in this case, he is simply known as the Trix rabbit, created in 1954 by General Mills (Food Reference Web site, 2004). From Quaker Oats’ *Captain Crunch*, to Post’s *Sugar Bear* for Sugar Crisps, *Barney and Fred Flintstone* for Fruity Pebbles, Kelloggs’ *Snap, Crackle and Pop* for Rice Krispies, *Tony* the Tiger for Frosted Flakes and General Mills’ *Lucky* the Leprechaun for Lucky Charms, it is a wonder that girls even eat cereals!

With cereals being the most advertised food for children, the realization that the promotional character of choice is a male figure is of some concern. Girls eat too. Along with toys, food is the most marketed product to children, accounting for nearly 80% of ads geared toward children (Strasburger & Wilson, 2002). A key component of these ads is the focus character that often becomes a popular icon for children to relate to, forming what could be referred to as a role model. Role models are found not only in cartoons, but in any character that is popular and appealing. This can be witnessed in the popularity of cereal characters on children’s accessories such as tees and lunch kits. The paucity of female representations in commercials geared toward kids could contribute to the development of skewed definitions of gender roles. Examining how gender is represented in both food and toy commercials directed toward children may reveal the importance of creating more gender equality in kids’ food and toy advertisements.

Advertisements are an extremely pervasive aspect of television and have been identified as such through the large amounts of research conducted on the various effects they may have. Ads are “a highly visible and powerful social institution that act as a vehicle of cultural communication” (Ferguson, Kreshel, & Tinkham, 1990). Therefore, if one element (such as television commercials) has the power to create and convey cultural meaning, inaccurate stereotypes, and confining role settings, that medium is considerably disconcerting and worth some focus.

According to Browne (1998), children are exposed to approximately 20,000 commercials per year, more than half of which are for food, and this does not include what is heard on the radio, seen on billboards, or viewed on the Internet. Food and toy ads are the focal point of this research because they are the two most marketed products to children. Food ads make up about 60%, while toy ads make up another 25% of all commercials targeted to children (Strasburger & Wilson, 2002). Advertisers view children as a captive audience and gullible target group, and spend more than \$12 billion a year specifically on marketing to children (Strasburger & Wilson, 2002). Television has become such a part of children’s lives that it can in many ways play the role of “teacher.” Children’s increased exposure to this medium also means an increase in the number of ads they see. With the potential to affect change in an industry ultimately on the rise, continuous and exhaustive research on advertising as it relates to children is imperative.

The literature review for the most part, focuses on the work of researchers who, through a variety of methods, have investigated the portrayals of males and females

(children and adults) in advertisements. Other research draws on studies done on international media followed by the theoretical framework to illustrate how all the findings from the data can relate in context. The literature review leads up to a few authors' general findings on the pervasiveness of advertisements and just how influential they can be in the process of role definition.

To explore what the representation of gender is like in ads today, data was collected by recording and coding commercials on the network stations. A detailed coding form was used to get a better grasp of how each gender interacts with the toy or food. The form also allowed for the examination of how the ad was created (in terms of colors and sounds used), which could then be related to its association in the depiction of the gender(s) and the product(s) in the commercial. The study allowed for the creation of easily tabulated data from which to draw inferences about the possible effects gender representation in ads could have on children.

## CHAPTER 2

### Literature Review

Speaking more specifically to the pervasive institution of advertising, Mang (1997) wrote that advertising “occupies a special position within the economic organization of a modern society” (p. 59). Advertising deals with ideas, attitudes, and values, giving them “cultural form through its signifying practices” (p. 61). Advertising as “signifying practices” gives meaning to words and images (Smith, 2004). Through this process, advertising is able to penetrate the fabric of the belief systems of society. The promotional culture of advertising has worked its way into “what we read, what we care about, the ways we raise our children, our ideas of right and wrong conduct, our attribution of significance to 'image' in both public and private life” (Mang, 1997).

Advertising is a social practice, and it does not operate in a vacuum (Mang, 1997). The social role of advertising involves a number of interconnected relationships – “those between person and object, use and symbol, symbolism and power, and communication and satisfaction” (Mang, 1997). Thus, advertising must be considered in light of cultural expectations. Cuneen and Sidwell (1998) argued that advertising is highly prone to a variety of interpretations due to the varying cultural contexts under which the ads were created and are being delivered. Similarly, Baker (2005) illustrated the concept of “shared meanings,” where he explored an advertisement’s emphasis on cultural practices. It is the participants in a culture who give meaning to people, objects, and events. Since things in themselves rarely have any single and fixed meaning, they need to be given meanings by participants of the culture. Baker (2005) suggested that

advertisements serve as a filter/interpreter for those receiving the messages. The work has already been done for viewers; they are pre-confined to roles and clearly are told how to operate in those roles.

The authors examined in this literature review cover a wide range of topics concerning gender representation in children's food and toy commercials. Some authors conducted detailed content analyses on the roles of men and women in commercials from a representative set of advertisements and others applied theories as means to examine the potential effects these commercials can have on children. Looking at gender representation from an academic standpoint is nothing new; however the studies chosen for this literature review are the most relevant and in some cases most recent.

### Gender Representation in Advertisements

Much of the previous research on gender representation in ads geared toward children focuses on the representation of males in these ads. It could be noted that this in itself is a reflection of the fact that there is a prominence of males in ads. As such, analyzing males provides researchers with a wider perspective from which to observe and collect data, therefore giving more reliable results due to increased data sets. Whipple and McManamon (2002) stressed the lack of available resources for their research on male and female voices in commercials because of the saturation of male announcers. This again provides evidence of the proliferation of men over women even when dealing with announcers. They found that the general use of men over women was because men are perceived as being more "credible" than women, usually remaining consistent in their opinions that are rarely subject to change. In accordance with Whipple and

McManamon, Kaufman (1999) noted the “credibility” that is often viewed as being possessed by males in a specific look at medications. A number of these commercials (narrated by a male) will show the mother nursing her kids back to health, exuding the satisfaction of knowing the remedy of choice will work. In these commercials, the medicines are recommended by “Dr. Mom,” but the voicing is done by a male, almost as if the man has given it the seal of approval. In a similar study, Macklin and Kolbe (1984) found that 42.8% of female-oriented advertisements used female-only narrators, compared to 61.6% of male-oriented advertisements using male-only narrators.

Kaufman (1999) and Seiter’s (1993) content analyses both confirmed the hypothesis that there is a dominance of males over females in commercials. Dominance for the purpose of this study was attributed to the gender interacting most with the child. A more in-depth look at the roles of men and women found that men were less likely to be portrayed as cooking, cleaning, washing, and shopping. Furthermore, men without spouses were more likely to be shown with boys rather than with girls. However, if both spouses were present, it was still more likely that they would be shown with boys. Women were mostly depicted preparing food or baths for children or cleaning the home, while men were shown reading, talking, playing, or eating with children. Similarly, Welch, Huston-Stein, Wright, and Plehal (1979) performed a study of the aggressive behavior displayed in child characters taken from a sample of 60 morning-time toy advertisements, which produced disconcerting results. They discovered that aggression was found to be limited almost exclusively to advertisements aimed at boys. These



advertisements also contained higher levels of action and movement than in those aimed at girls.

Ganahl, Prinsen, and Netzley (2003) conducted a content analysis of 1,337 primetime commercials from three major networks: ABC, NBC, and CBS. Similarly, Harrison and Marske (2005) observed 426 food advertisements that occurred during programs children watched most and contained children as primary characters. Even though women make most of the purchases of goods and services for the home (Kaufman, 1999), both Harrison and Marske (2005) and Ganahl, Prinsen, and Netzley (2003) found that females are still underrepresented as primary characters (with the exception of health and beauty products) in commercials. Females are either: (1) cast as counterparts to the men, supporting men at what they do or (2) not being portrayed at all, perpetuating traditional stereotypes (Hovland, McMahan, & Lee, 2005).

In a content analysis done by Larson (2001), the portrayals of activities and interactions of boys and girls in both single-gendered and mixed-gendered commercials were analyzed. Nearly equal numbers of girls and boys were portrayed together acting cooperatively in mixed-gendered ads. However, in the single-gendered commercials, girls were portrayed in stereotypical domestic settings. Putrevu (2004) said that these domestic settings have adverse effects on girls as they begin to develop the concept of what it means to be “girl” and how that character should be in society.

Food commercials have superceded toys in their prevalence on television programming for children (Wilson, Signal, & Nicholls, 2006). Though food is not a gender-specific product, advertising would have children perceive otherwise (Neville,

Thomas, & Bauman, 2005). With a greater focus on children's health in regards to food commercials, Henderson and Kelly (2005) also found that when mixed gendered advertisements occurred, the boys still outnumbered the girls and that boys were interacting significantly more with the food than the girls, who mostly watched in awe as the boys prepared or consumed it.

The correlation between obesity in children and the high sugar content of foods advertised to children shows a relationship between advertising and children's weight (Lobstein & Dobb, 2005). With junk foods accounting for more than 70% of the food advertised to children, Halford (2005) noted that the relation to obesity is evident. Therefore, it seems only logical to assume that the effects of the dominance of junk food commercials spread across to values children will develop (Halford, Gillespie, & Brown 2005). Rodd and Patel (2005) discussed this concern in relation to children's dental health, which has declined over the last decade.

A similar correlation can be made between youth and alcohol consumption. Chen, Grube, & Bersamin (2005) found that children between the ages of 7 and 12 could name more brands of beer than they could past presidents. The researchers asserted that though the latter could be the result of a downfall in the education system, the idea of marketing to children at a young age to ensure brand loyalty is not new. Joe Camel, the popular icon for Camel cigarettes that appeared in an animated cartoon form, was changed as a result of its increased popularity among children (Calfee, 2000). The notion of employing tactics that gain massive appeal among children, though seemingly unethical, has its reach across toy and food commercials during children's programming

(Rovinelli & Whissell, 1998). Children are extremely receptive to advertisements due to the techniques frequently employed such as jingles, bright colors, animation, and slogans (Rouner, Slater, & Domenech-Rodriguez, 2003). Ellickson, Collins, and Hambarisoomians (2005) confirmed this finding when they analyzed advertisements and found key elements such as popular songs and fast moving colors seemingly present for the direct appeal of children. A child's retention for commercials is heightened by the attractiveness of today's ads (Gunter, Baluch, & Duffy, 2002), which appeal to the senses most accessible and used at a young age. Browne (1998) identified those senses as sight and sound.

Though their research did not focus on gender representation in advertisements, Hurtz and Durkin (2004) examined gender-stereotyped radio commercials and their effects on men's and women's perceptions of themselves and each other. They studied a wide range of commercials throughout the business work day with an equal number voiced by men and women. Fischer and Dube (2005) asserted that a study of this nature can produce data comparable to an investigation of the voiceovers used in television commercials. Similarly, they conducted research looking specifically at gender differences in regard to emotional advertising. Both sets of researchers found that men's voices are usually louder and scripted to put them in a role with much command such as a boss or head coach. In contrast, women were very rarely placed above the men in terms of rank. Instead they were normally girlfriends sharing information about a good recipe or service. They found that women were most likely to be portrayed as equal to each other and men were given frequent opportunities to exercise power over the other in large

groups and in one-on-one interaction. Even the environment in which men and women are immersed seems to be carefully chosen to represent how each gender can and should act (Ahmed, Grace, and Stelfox, 2004).

Applying these findings to the core of this literature review is relevant. Children are exposed to ads featuring individuals of their own age group and many ads have family settings. The amount of ads shown daily makes these observations of men and women at the very least, noteworthy. To a small degree it can be assumed that the same will apply for children's ads. Based on her findings in a study concerning a content analysis of gender differences in children's advertising, Smith (1994) asserted that though technology and "modern ways of thinking" have come into play and some portrayals have become more subtle than others, "subtle biases can be just as destructive as overt ones." Advertisements heavily rely on socially generated notions of gender as a means of targeting products at appropriate consumer sectors, appealing to the individual and casting the product in the image of the user (Williamson, 1978). Additionally, advertisements often contain compact narrative structures that introduce characters, motivations, and outcomes without the added complication of the 'history' of other television genres such as soap opera. With that knowledge, Williamson asserted that it is important to investigate toy ads in particular because they promote goods that arguably contribute to a gender-based construction of the self and the adoption of appropriate gender behavior since more often than not many games are created to be gender-specific.

In Ellen's 1975 content analytic study, she investigated the sex differences in children's ads pertaining to the products that males and females appear in, the activity

involved, and the gender orientation of the audio for the ad. She found that children were not only more reactive to their own gender, but their portrayals were drastically different, with females being portrayed as less competitive than the males and mostly remained indoors.

Similar to the proposed method of data collection for this thesis, Furnham, Abramsky, and Gunter (1997) conducted a content analysis of children's ads for their book, *Sex Roles*. Two sets of television advertisements from weekend children's television in London and New York were video-recorded and coded. The advertised products covered by this analysis included snack and fast food, toys, and breakfast cereal. Each advertisement was coded according to nine criteria, including the ethnicity and gender of the people appearing, gender of central figure and of any "voice over" in the commercial, presence or absence of music, and other sales-related content. In general, male actors were more numerous than females in both American and British advertisements. There were more similarities than differences between the two national markets in terms of the nature of gender-role portrayals, with males generally occupying more central and authoritative positions.

Ferguson, Kreshel, and Tinkham (1990) explained that though the roles of women in advertisements seem to perpetuate a stereotype society has fought to break away from, advertisers are able to stereotype freely because sales (among women) continue to rise and acclaim continues to be given to their ads. Caldas-Coulthard and van Leewuwen (2001) discussed a similar issue facing the baby-toy industry in their investigation of a baby's first toys. They found that a growing number of parents had become aware of

how ads had been prescribing what their children should and should not play with. However, the percentage of aware or concerned parents who are willing to stop purchasing certain toys or making their opinions heard regarding certain ads isn't enough to put a dent in production, sales, or feedback. As such, the advertising companies are able to stay true to the equation that works. The concepts of what "girl" and what "boy" should be go far beyond just the creation of the advertisement, but also in the physical production of the toys (Chandler & Griffiths, 2000). Toys that are marketed for both sexes will often come in "versions," with a pink option for girls and a blue option for boys. Chandler and Griffith (2000) found evidence that to a smaller degree the materials used for boys' toys are often more durable due to "the rough game play" that boys will engage in. There are many facets in which the representation of what it means to be "boy" and "girl" are depicted in ads and several theorists have used their own research to explain these depictions as they occur with regards to children's food and toy commercials.

#### Applying the Theory

Seiter (1993) focused on toys and the roles they play in the lives of children and parents. She took an in-depth look at Barbie, My Little Pony, and action TV toys for boys such as action figures from the Real Ghostbusters. She asserted that the constant homogeneity of pink packaging for girls and the strong male leader with a "tough guy" attitude for boys can dangerously perpetuate gender role stereotypes as explained by Gerbner and Gross' (1976) application of cultivation theory. Seiter (1993) noted that action figures for boys are depicted as blasting away the enemy to save the day, while

toys for girls such as My Little Pony use moral persuasion to get the enemy to change. Further findings showed that commercials aimed toward girls normally have fuzzy, pastel colored images and take place in domestic settings, while boys are usually placed outside.

Lowry and Kim (2005) noted that children identify with other children in ads and use these advertisements to help them to understand and distinguish themselves from adults. Children continue to use these characters as a means of identification (Gerbner & Gross, 1976). Similarly, in an exhaustive analysis of 3,500 toy commercials, Pugh (2005) found that many toys perpetuate stereotypes for children, often masking them as “skills” that parents should want their children to develop. Inevitably, the skills associated with each gender is dictated by the toy companies.

Durkin (1985) used cognitive development theory to explain some of his findings in his study of children and commercials. He defined cognitive development as a child’s growing construction of the self, with an implicit assumption that the child knows which role to develop according to what one sees and experiences. It takes into consideration the child’s growing perception of the world and how things and people are categorized. Durkin proposed a three-stage developmental process in which children begin to determine the characteristics of their own gender. Those stages are:

- Gender labeling (2- to 3-years-old approx.) where the child slowly becomes aware of being a member of a particular sex.
- Gender stability (3- to 4-years-old approx.) where the child becomes aware of the durability of his or her gender and is able to predict the sex he or she will be when

grown up. This prediction, however, is generally still dependent on the child's physical concept of gender.

- Gender constancy (4- to 7-years-old approx.) where children come to understand the permanency or constancy of their own and other people's gender.

Durkin (1985) noted that children actively seek information about gender behavior and, using play styles and sex-typed toys as their experimental equipment, learn how to behave in a manner that society deems acceptable.

Smith's (1994) look at gender differences in children's ads found that children will acquire the patterns of behavior more rapidly where there is an attractive model whose behavior is rewarded as often is seen in television ads. Peirce and McBride (1999) argued that television teaches children a great deal about sex-typed behaviors, simply because it brings an abundance of readily observable models into the child's own home. However, it is important to acknowledge that television programming is not the only source of gender-example, since advertisements present to children any number of gender-appropriate behaviors that are lavished with rewards. These behaviors are clearly distinguished and separated as boy and girl reactions and attitudes.

Women and men typically differ in their emotional and attitudinal responses. Additionally, their prior attitudes toward stereotyped portrayals affect advertising effectiveness (Orth & Holancova, 2004). However, children are in the process of developing their "prior attitudes," thus they have very little from which to draw what adults would refer to as preconceived notions (Gonzalez & Koestner, 2005), and are in a position to act upon what they see.



Many studies mentioned in this literature review use content analysis as a means of collecting and analyzing data because it is a reliable way to look at a representative sample of some form of media and allows for the coding of several factors at one time, once an efficient coding scheme is created. Content analysis has long been used as a means of collecting data, but was not considered a quality method until Kassirjian (1977) wrote his article, *Content Analysis in Consumer Research*. He realized that previous content analyses did not meet the accepted standards of data collection. As such, he offered directives on how to improve content analysis in the areas of objectivity, systemization, quantification, sampling, and reliability (Kolby & Burnett, 1991).

Content analysis, for the purpose of this study, is the frequency with which certain identifiable elements in a given set of advertisements occur. The variables outlined in Table 1 are those that the advertisements will be coded for to find the most representative results for the hypotheses. The ads will be coded after they have been recorded to allow for more precise coding, given the pause and play capabilities of recording. Based on a detailed examination of Smith's (2005), Durkin's (1985), Ellen's (1975), and Griffiths' (2001) studies, the following hypotheses have been developed:

H1: The gender for the voiceover of the commercials will be predominantly male.

H2: The dominant product user will be male.

H3: There will be more boys in mixed gender ads than girls.

H4: Boys will display more activity than girls in single-gender ads.

H5: Boys will display more aggression than girls in single-gender ads.

Table 1. Definition of Variables

<b>Variable</b>	<b>Definition</b>
Gender of voiceover	Voices(or voices) from an unseen source
Dominant product user	The person directly handling, consuming or interacting with the advertised product
Main character	The main character, child or adult, that appears most in the ad, or has the main speaking role, or center of attention
Activity level	Refers to whether the characters are active and busy or passive and quiet
Aggression	Acting against another person or thing such as showing actions of hitting, throwing, grabbing and determined behavior as in pursuing a goal (Browne, 1998)

The substantial number of sources covering the span of topics and research concerning advertising, gender portrayals in advertisements and theory can be used to predict the possible effects on children, providing a sufficiently supportive foundation for the prospective research to be conducted. The literature in support of this thesis shows there is significant validity in exploring this topic as the industry of advertising continues to expand, becoming more easily accessible to children at an increasingly younger age.

## CHAPTER 3

### Method

Using content analysis, data was collected by recording and coding commercials from ads viewed on the network stations, ABC, NBC, CW, CBS, and Fox. Network stations were chosen because families with televisions have easier access to these network channels as opposed to cable channels, such as Cartoon Network, 98% vs. 74% according to Strasburger and Wilson (2002). These channels are free and widely available to a larger group of people. As such, it is easy to assume the possibility of these ads reaching a greater number of children. The advertisements were recorded Monday through Friday between the times of 3 p.m. and 6 p.m. for two weeks from September 3-14. Each station was viewed randomly, to ensure that each station was coded every day of the week at least once. The times of 3 p.m. to 6 p.m. are prime for this research given that many children would be home from school and might be able to watch what they want until about 6 p.m., when their parent(s) is likely to watch the local news or eat dinner. The coding sheet in Appendix 1 was used to categorize and record the data found.

All commercials were coded. An ad directed toward children was considered one where children were present and interacting with the food or toys being promoted in the ad. A car ad with a family, though children were present, were coded as “other” for the purpose of this study, and an ad that clearly depicted adult services or products, such as insurance policies or business suits, was considered “null” and not a part of the analysis. There were approximately 30 ads in a 1-hour period of network television, therefore, over

the course of the two weeks 1,453 commercials were recorded and coded, however, all of those ads were not directly targeted toward kids. The ads selected were those geared toward children. Though the research focuses specifically on toys and food, was important to record the frequency of any children's ad. Therefore, the coding form also included the categorization of "other," which referred to commercials showing learning programs like Sylvan for children and other programs or vacation packages appealing to children's power of persuasion over family activities.

### Defining the Terms

**Voiceover:** The voice-over in the advertisement represents a position of authority. The voice-overs in the sample were coded as "male," "female," "none," or "both." The gender of the voice-over in the advertisement gives an indirect impression of gender importance for the product. Traditionally, male voice-overs are more prevalent in advertisements to children, including messages for gender-neutral products (Kolby & Burnett, 1991).

**Dominant product user:** The dominant product user in the advertisement is the person most directly interacting with the advertised product. This variable was coded as "boy," "girl," "both boy and girl," or "no dominant user." A very direct and high-impact gender signal is delivered via the gender of the dominant product user in advertising, because it indicates to a child who is the one most associated with the product, answering the question of who it is for (Griffiths).

**Main character:** This is classified into three categories. These categories are "male," "female," or "neutral." A neutral classification is represented by a mix of males

and females as main characters. Similar to the dominant product user, the main character in the commercial also delivers a powerful cue as to the gender preference and gender appropriateness for the product (Ellen).

Activity: This refers to what was done by the characters present in the ad. Ads were coded for whether there was observance of someone else interacting with the product or if they were the ones engaged with the product itself or doing most of the talking and instruction in regards to the product (Ellen).

Aggression: This referred to any action against another person or thing such as hitting, throwing, grabbing and also included determined behavior as in the pursuit of a goal (Browne, 1998). It is important to code for aggression since previous studies have indicated that the overall nature of females as depicted by the media is less competitive than males (Smith). This recording measured whether aggressive behavior occurred even in the brief time span of an ad.

Each time a commercial was coded, the type of commercial (food, toy, or other), the number of boys and girls shown in the commercial, whether the commercial is for a toy or cereal, and whether it was geared toward a boy, girl, or if it was gender neutral was recorded. If only one gender was represented in the ad, it was considered to be a boy-only or girl-only ad, while if both were present it was considered mixed gender. Two coders were used to ensure coder reliability. The criteria of categorization was explained in detail and the ads recorded to allow for easy recall in the event of a miscount in the number of children present in the ad or any other observations possibly missed for

coding. These coders were the researcher and another student from the graduate studies Mass Communications program at San José State University.

Each ad was coded for whether there was a voiceover and which gender was doing it (or both as the case might be) along with coding for aggression, activity level, and interaction as outlined earlier. The information was tallied and put into readable graphs from which the desired information was easily be extrapolated.

It is important to check for reliability whenever measurements are done through observation because of the high propensity for human error to occur. To determine whether two or more coders are reliable, an intercoder reliability check can be performed by calculating the percentage of agreement between pairs of observers (Novak & Buddenbaum, 2001). However, simple percentage of agreement tends to overestimate reliability. By chance alone, a judge will sometimes choose the same category on two trials; thus, Scott's pi can be used to factor out chance agreement (Novak & Buddenbaum). By inputting the data from a random sample of 10 percent of the items that were initially coded into the formula, reliability can be assumed if Scott's pi is at least .7, but if an item is particularly hard to judge, a reliability coefficient of .6 may be acceptable (Novak & Buddenbaum).

$$\text{Scott's pi} = 1 - \frac{P_o - P_e}{P_e}$$

$P_o$  = percentage of observed agreement (expressed as a decimal) of two judges coding for the same item independently

$P_e$  = percentage of agreement expected by chance = sum of squared percentages (expressed as a decimal) in each coding category

Scott's pi was used to determine inter-coder reliability after the data for this research was collected. A reliability of .618 was achieved which representative of a satisfactory reliability of the information.

## Results

After two weeks of research 1453 commercials were coded (Figure 1), and only 422 were considered geared toward children (Figure 2), based on the criteria set prior to collecting data. The majority of the commercials were for products and services clearly for adult use, such as cars, jobs, insurance, dietary supplements and exercise machines. Of the 422, 248 were categorized as "food" commercials, 106 as "toy" commercials and 68 as "other" (Figure 3). This "other" consisted of educational programs or resources such as Sylvan Learning Centers as well as medication and baby products that were promoted in such a way to interest younger audiences. As such the base number used for the generation of the primary graphs is 354, which is the total number of food and toy commercials that were viewed in the designated period.

Each station showed a similar distribution of advertisements overall, with an average of 290 commercials per station (Figure 1). Fox showed 300, the highest number and CW showed 282, the lowest number over the two-week period. From Figure 2 it can also be seen that NBC showed 109 children's ads while Fox had 60, the lowest of the five stations. ABC, NBC, and CW showed 90, 91, and 72, respectively. The overall gender representation in all coded ads resulted in more than a 2:1 ratio of boys to girls (Figure 4), with 606 boys and 245 girls. The same result was derived from the gender representation in mix gender ads (Figure 5) with 483 boys and 203 girls, therefore confirming H3,

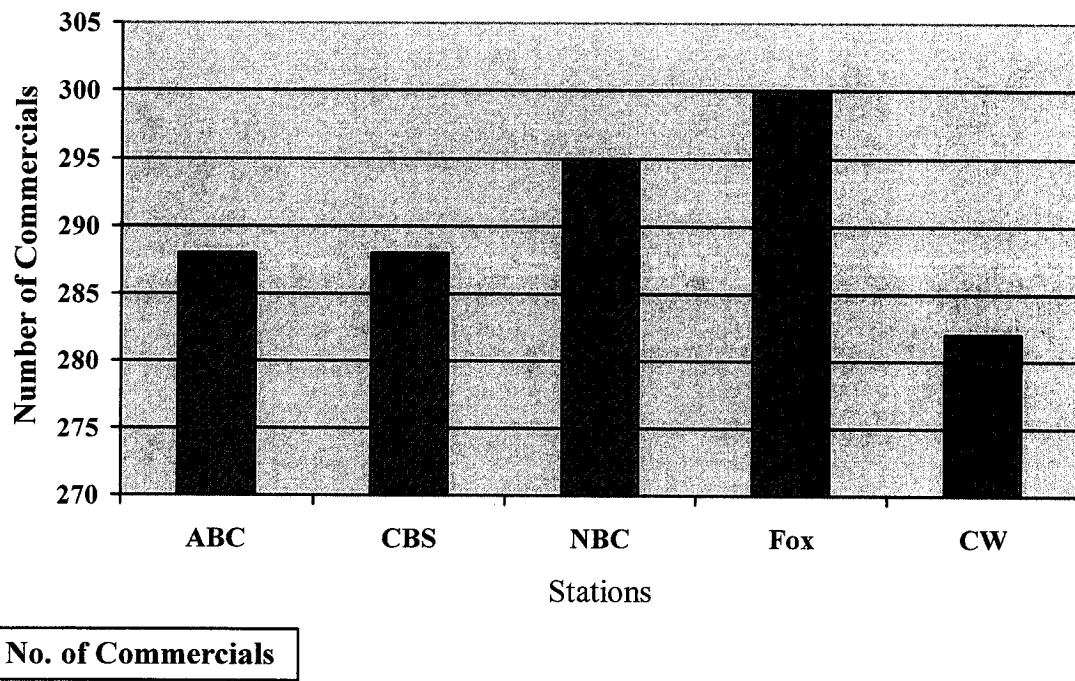


Figure 1. Number of Commercials Shown on Each Station



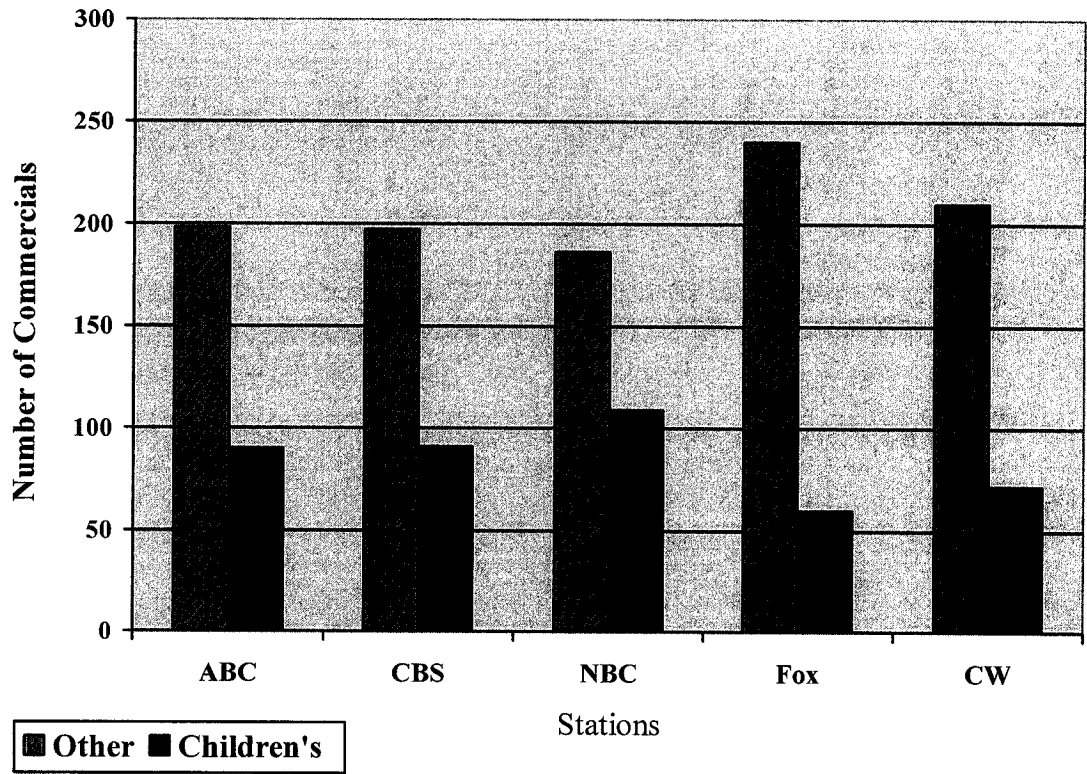


Figure 2. Number of Children's Commercials v. Other Commercials Shown on Each Station

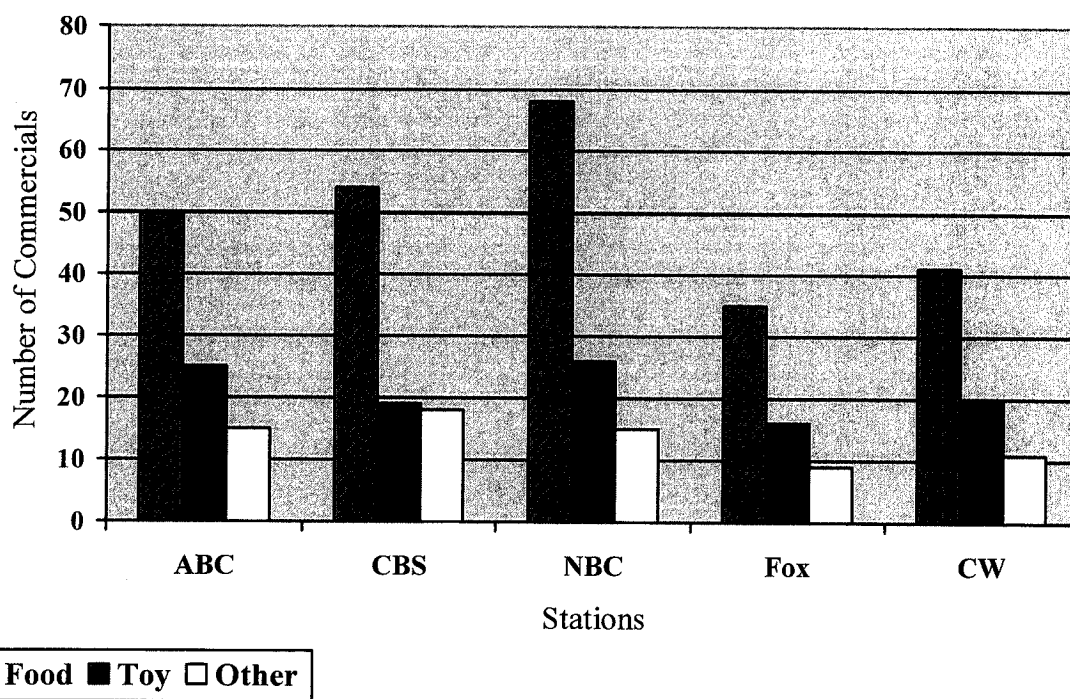


Figure 3. Number of Commercials Geared toward Children Shown on Each Station.

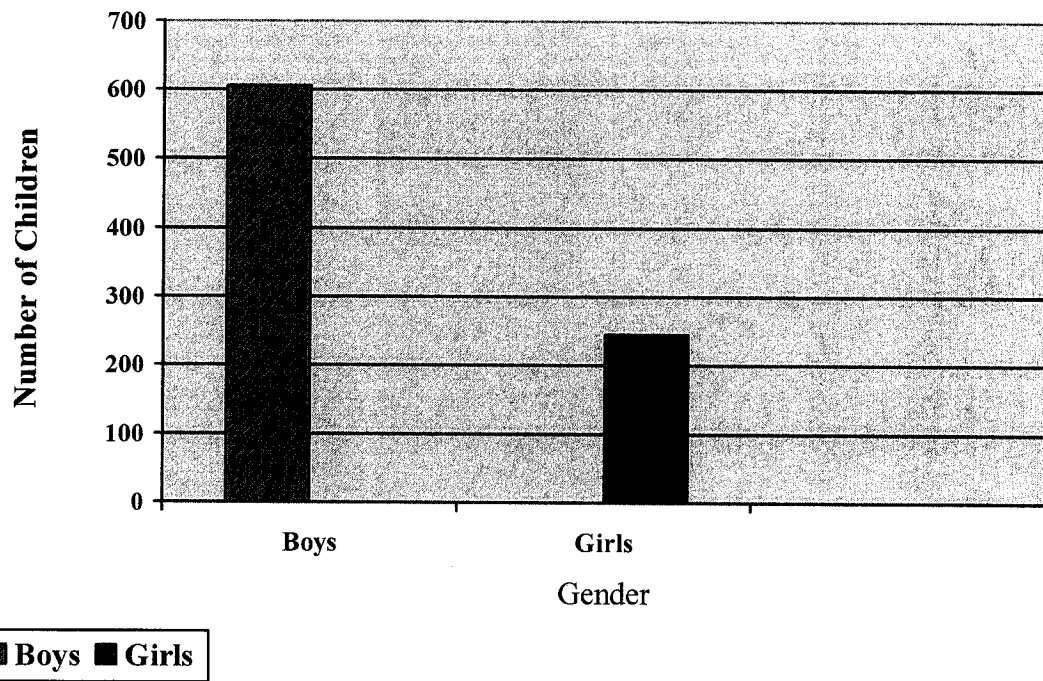


Figure 4: Gender Representation in All Commercials.

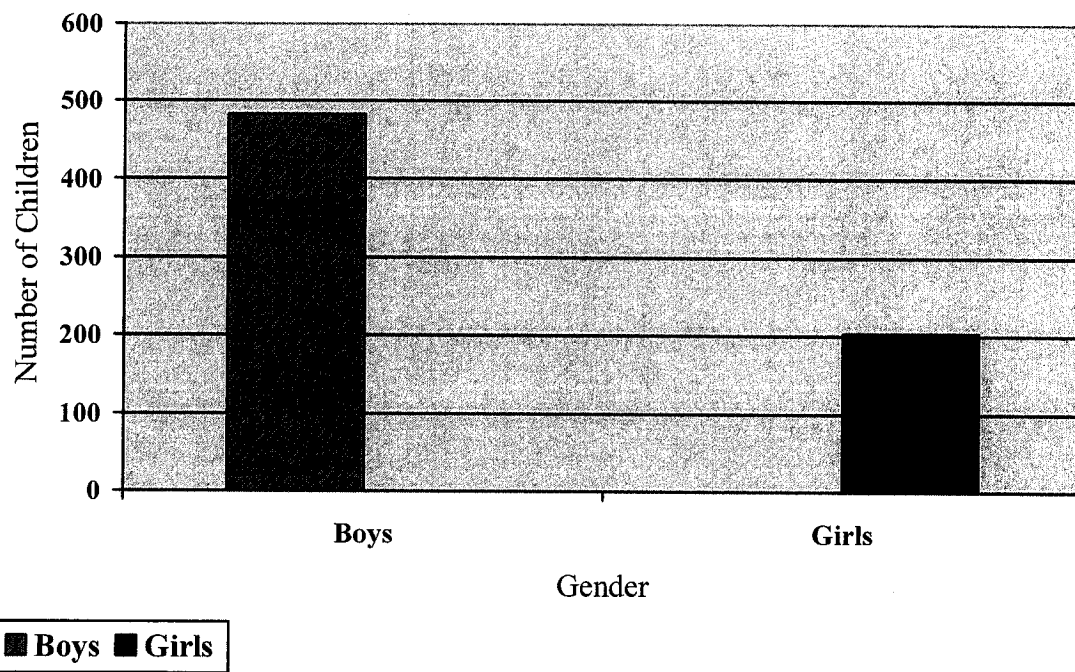


Figure 5: Gender Representation in Mixed Commercials

which stated that there will be more boys in mixed gender ads than girls. In regards to each station, the distribution of gender specific and mixed commercials was very similar to that of the overall commercial distribution (Figure 6), with NBC showing 25 boy-only commercials, the highest amount, and Fox with 12. ABC, CBS, and CW had 18, 15, and 16 boy-only ads, respectively. The numbers for girl-only ads were overwhelmingly low, with NBC showing six, and CBS with only one of the 17 girl-only commercials coded for over the entire two-week period. Mixed ads, 251 of the 354 ads, accounted for most of the ads geared toward children (Figure 6). Boy-only ads totaled 86 and girl-only 17. Overall there were more food than toy commercials, with 248 and 106, respectively. Within the ads that were collected, there were 401 boys and 203 girls in the food commercials and 177 boys and 68 girls in the toy commercials (Figure 7). The small amount of girls can be attributed to the fact that the primary girl count came from the toys, which, unlike food, tends to be gender specific. Since there were only 17 toy commercials and present in those were 42 girls, the rest came from mixed commercials involving food. Figure 8 shows the vast differences in the amount of children in each type of commercial.

With a total of 132 ads including voiceovers, 109 voiceovers were identified as male and 23 as female (Figure 9), therefore H1 (the gender for the voiceover of the commercials will be predominantly male) was supported. Female voices were found to be primarily used in girl-only commercials and in mixed ads, where the voice seemed to

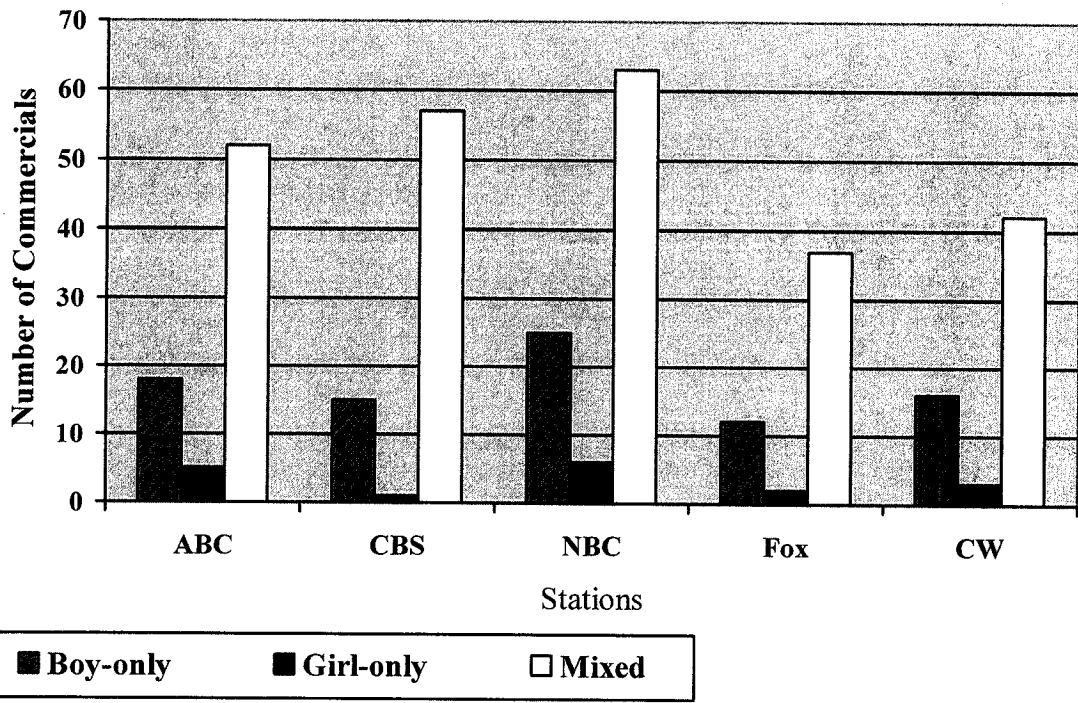


Figure 6. Number of Types of Children's Commercials Shown on Each Station

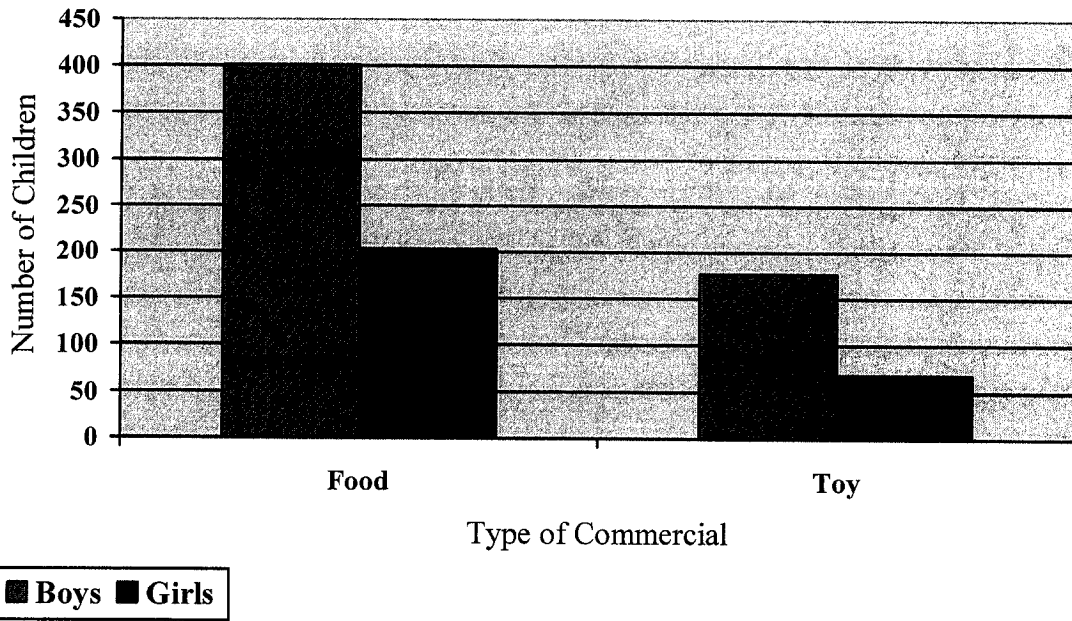


Figure 7. Number of Children in Food and Toy Commercials

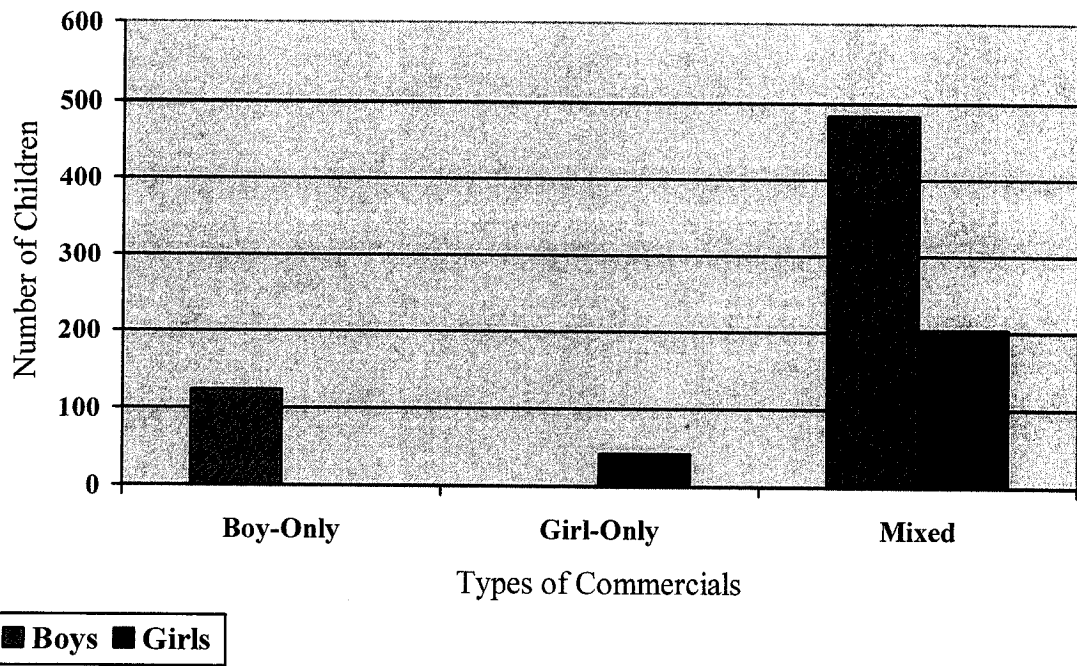


Figure 8. Number of Children in Each Type of Commercial



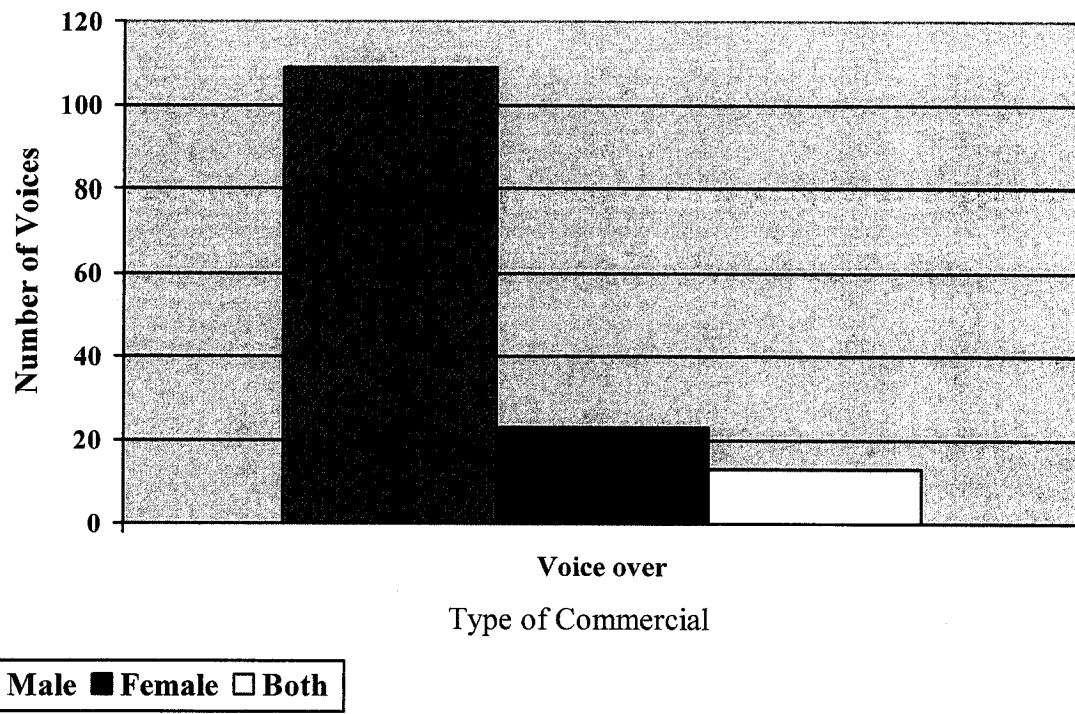


Figure 9: Gender of Voices Used in Commercial

play the role of a mother speaking in reference to her children represented by those interacting in the commercial. There wasn't any consistency found in terms of when male voices were used, since they were used for the majority of the ads, however it was found that there were girl-specific toys that would include male voice-overs, but female voices weren't used for male-specific toys.

In terms of dominant product use, H2 was supported with 292 commercials having boys interacting with the product, 17 with girls and 45 where both were considered having similar or equal interaction with the product being advertised (Figure 10). Additionally, H4 and H5, which stated that boys will display more activity than girls in single-gender ads and boys will display more aggression than girls in single-gender ads, were both supported. Boys were shown as being competitive with their toys and games. With lines like "see who you can be on top," or "taking over territory" as marketing lines to draw in boys and make them feel compelled to ask for such toys. Girls were most often shown as experiencing games where sharing was involved and working together is the goal of the game. Boys were most often set in an outdoor setting, while girl-only ads were set inside a bedroom or cuddled together on a room floor with soft colors and slow transition of scenes. Commercials with boys were primarily fast-paced, and equipped with louder music or sound effects.

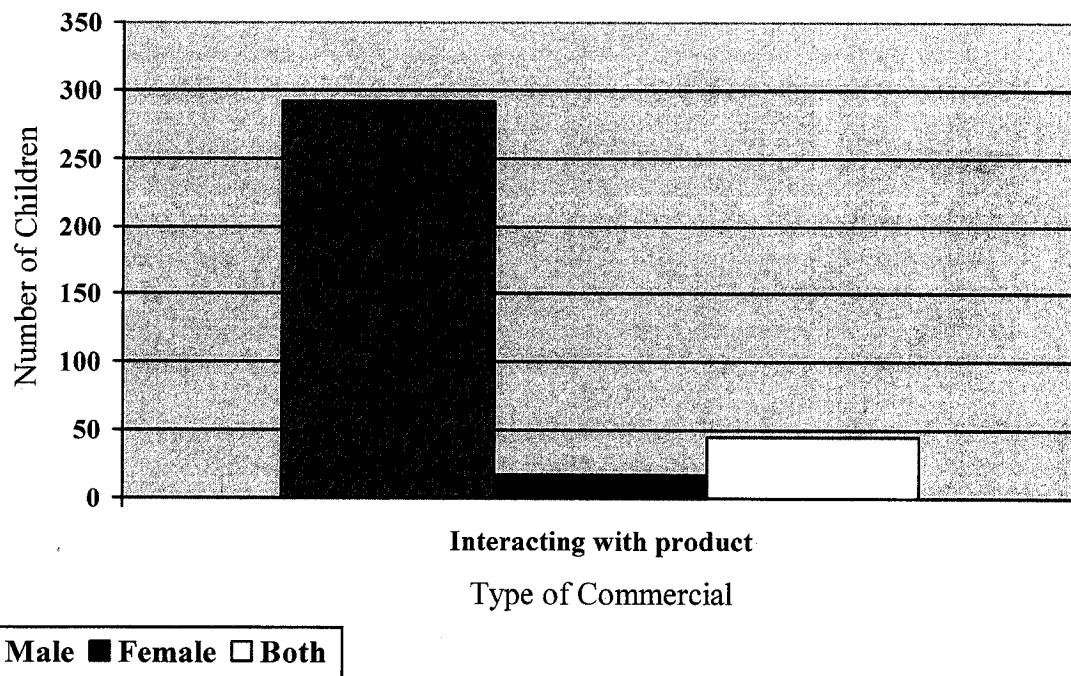


Figure 10. Gender of Children Interacting with a Product.

## Discussion

From the data collected, several major patterns can be outlined, primarily, the fact that there were more males in ads geared toward children than females. Additionally, even in mixed gendered ads the boys were the ones most likely to interact with the product than the girls. One explanation for this could be the assumption that boys will not as easily associate with something that a girl is linked to, as easily as a girl would with something that a boy is associated with. However, there needs to be a larger shift to more mixed gendered commercials than singled-sexed commercials. Though a toy's appeal might be gender specific, food certainly is not. There are many toys today that can be played by both boys and girls and should be depicted as such. Whether it is incorporating girls in competitive outdoor games and boys in scrap booking or more indoor based activities, there needs to be a switch to more integrated ads. This is in alignment with the findings of Ganahl, Prinsen, and Netzley (2003) who found in their content analysis that women were underrepresented in ads; the same is true for the 422 ads coded for in this research.

Several elements of boy-only ads were often different from girl-only ads. It was typical to see girl only ads taking place in the bedroom which was usually decorated in light pastels (primarily pink) and girls associating with touching, affection and sharing based activities. In boy-only ads however, many are set in the outdoors or the backyard of the house with face paced screen shots, loud sound effects and bright colors. These differences seem to propagate traditional gender stereotypes.

The ads that stood out as having consistency in gender presence were those that were not the focus of this research (i.e. food and toy ads); ads such as learning service programs and after school sessions. For the most part, those showed a very diverse representation of voiceovers, male and female adults as well as children. One reason for this might be that these services are to an extent marketed to parents and not just children. Additionally there might not be a drastic difference in the number of boys and girls who need or use these services as such they might genuinely need to target both groups.

Though there were 1,453 commercials recorded, only 422 were geared toward children. The 3 p.m. – 6 p.m. time slot was chosen because of the assumption of accessibility children might have to the television at that time this is a small number. However, the bulk of the programs airing at this time were soap operas and daily talk shows. As such, the commercials were geared toward the audiences of those programs. The data collected is only from 422 commercials but the numbers are for the most part consistent and therefore noteworthy.

#### Recommendation for Future Research

If another study were to be conducted it might prove beneficial to collect data over a longer period of time so that at least more than 1,000 ads can be coded, however the consistency of the results from this research provide reason to believe that the data might not be different.

Looking at children-specific stations like Nickelodeon, Disney, or Cartoon Network, instead of just the network stations could provide insight into a wider variety of children-specific ads. There are ads on those stations that might not be shown on the

networked stations examined in this research. Also, a more detailed look at some of the network stations like NBC on a Saturday morning when a 4-hour cartoon session is scheduled could provide different data. Similarly to the children-specific stations, the programming on a Saturday morning on some networks is geared toward children and often leased out to larger companies like Disney. Cable is filled with more niche marketing and though it is not as easily accessible as network stations will provide more to ads to code. However, it is logical to assume that such 4-hour time slots are not the only times that children are exposed to television commercials and as such this data collected from this research still holds significant weight.

Another time period to look at ads might be the holiday period when children are out of school and retail ads are at an all time high. Children might have more access to the television and more exposure to these ads, therefore a look at a 4-week period through late November through December could provide a more in-depth look into gender representation in such ads.

If the research were to be duplicated an examination of the aesthetics of the ads could be done. Coding for elements such as the colors, sounds, language use and setting could give more insight into just how different boy-only and girl-only ads are. Additionally examining ads other than food and toys would provide another dynamic to the data collected.

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APPENDIX

Coding Form

Channel: NBC CBS ABC Fox CW

Day and Date: \_\_\_\_\_

Time: \_\_\_\_\_

Type of Commercial: Food Toy Other Null

Gender representation: Single gendered \_\_\_\_\_ Mixed \_\_\_\_\_

Dominant product user: Male \_\_\_\_\_ Female \_\_\_\_\_ Both \_\_\_\_\_ None \_\_\_\_\_

Voiceover: Male \_\_\_\_\_ Female \_\_\_\_\_ Both \_\_\_\_\_ None \_\_\_\_\_

If toy commercial: Boy-typed \_\_\_\_\_ Girl-typed \_\_\_\_\_ Gender Neutral \_\_\_\_\_

Main character (real or animated): Boy \_\_\_\_\_ Girl \_\_\_\_\_ Neutral \_\_\_\_\_

# of females (real or animated): \_\_\_\_\_ # of males (real or animated): \_\_\_\_\_

Interaction with food/toy is taking place Yes \_\_\_\_\_  
No \_\_\_\_\_

If yes, who and how many: Boy \_\_\_\_\_  
Girl \_\_\_\_\_  
Male adult \_\_\_\_\_  
Female adult \_\_\_\_\_

Activity (in relation to the product) of gender present:

Boy:	Girl:
Active and speaking _____	Active and speaking _____
Active and listening _____	Active and listening _____
Admiring product _____	Admiring product _____

Aggression present: Yes \_\_\_\_\_ No \_\_\_\_\_

If yes who is displaying it: Boy \_\_\_\_\_  
Girl \_\_\_\_\_