BEING YOUNG, BEAUTIFUL, AND TAN:
AN EXPERIMENTAL STUDY OF TV BEAUTY AND MACHO ADS
ON ROLE EXPECTATIONS OF MALES AND FEMALES

by
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ABSTRACT

In 1979, Alexis S. Tan conducted the study, "TV Beauty Ads and Role Expectations of Adolescent Female Viewers." This study replicated and expanded Tan's study in several different ways.

This study manipulated exposure to television commercials that contained beauty/sex, wholesome beauty/youth, and macho themes to determine if males and females had more beauty-, sex-, youth-, or macho-emphasized views of four real-life roles. The theoretical framework used in this study, as well as Tan's, was cultivation analysis.

Cultivation analysis seeks to determine the conceptions of social reality that television viewing tends to cultivate in different groups of viewers over continuous, long-term exposure. Cultivation theorists search for differences in perceptions of social reality between light and heavy television viewers in the same
demographic subgroups. Although cultivation theory posits effects from long-term viewing, this study, similar to Tan’s (1979), wanted to determine if there was a causal relationship between one single saturated exposure and subsequent perceptions of real-life roles.

A 5 x 2 (commercial type X gender) experimental design, expanding on Tan’s (1979) basic framework, was used to test the effects of beauty/sex, wholesome beauty/youth, and macho commercials on evaluations of four real-life roles in male and female college students.

Two questionnaires were designed to measure a number of variables including: (a) perceptions of four real-life roles (to be personally desirable, successful as spouse, popular with potential romantic partners, and successful in career), (b) product recall, (c) perceived effectiveness of commercials, (d) liking for commercials, and (e) interest in commercials.

Findings indicated strong gender differences between males’ and females’ perceptions of the four real-life roles. Although the results revealed only one main effect for condition regarding perceptions of real-life roles, there were significant findings for
condition regarding degree of product recall, likability and interest in commercials.

Tan (1979) found cultivation effects for highly personal roles, while this study found only strong gender differences. Explanations for the null findings as well as directions for future research are discussed.
Chapter 1

INTRODUCTION

This thesis replicated and expanded the study, "TV Beauty Ads and Role Expectations of Adolescent Female Viewers," by Alexis S. Tan (1979). Tan's (1979) investigation manipulated exposure to TV "beauty" commercials (commercials using sex appeal, beauty, and/or youth as selling points) to ascertain whether they affected viewers' perceptions of "commercial-relevant aspects of social reality (i.e., the perceived importance of beauty commercial themes in social and other relations)" (p. 284). This replication expanded Tan's (1979) study by manipulating exposure to "beauty" commercials in five conditions to ascertain whether these commercials affected both male and female perceptions of social roles in society.

Perceived social reality is that which is absorbed from television exposure. In this study, the definition of social reality was based on the
definition used by Elliott and Slater (1980)--the degree or extent that any individual's definition of a situation is influenced by "indirect information sources" (p. 409), (i.e., television viewing, communication with other people), rather than from direct experience.

The theoretical framework that Tan (1979) used was cultivation analysis. While the primary theoretical orientation of this replication is also cultivation, this study will consider an additional explanation, priming. The ultimate purpose of this study is to determine if beauty ads cultivate perceptions reflecting the images of social reality seen in the ads among college students.

From here forward, "beauty" commercials collectively will be referred to as those using beauty/sex appeal and wholesome beauty/youth to sell products.
1.1 Importance of This Study

Wimmer and Dominick (1991) state that the results of any single study are, by themselves, only indications of what might exist and studies must be replicated in order to ensure that the results of any single study are not created by or dependent on a methodological factor. In order to validate Tan’s 12-year-old results, this study aimed to replicate and expand upon his findings. Tan’s (1979) original justification for the study holds today, but there is a great deal more to consider.

Tan’s (1979) original justification was to discover whether exposure to "beauty" commercials affected adolescents’ perceptions of the importance of beauty, sex appeal and youth in various "real-life" roles. Aside from Tan’s (1979) original justification, there are a number of additional reasons to replicate and expand this study.

The mass media play an important role as a source of messages in our daily lives. Watching television has become a commonplace activity. Consequently, it is important to examine the
association between television and its viewers. "Beauty" commercials appear quite frequently on television. Heavy viewing of "beauty" ads may be related to role perceptions that reflect TV's image of "beauty."

A second justification for the replication of this study concerns the perceptions of youngsters today. Since television commercials constitute a significant "element in the symbolic world of television" (Tan, 1979, p. 284) and commercials take place for approximately 9 1/2 minutes in every hour of prime-time television, there is a large possibility that exposure to television commercials affects youngsters. In addition, due to the many elements that make up commercial content, commercials "sell" more than just products. Thus, the "selling power" of commercials may extend to notions of lifestyle expectations. More specifically, numerous studies have shown that youngsters model behavior that they see in the media, and use media to gain insight into roles they will fill later in life (Busby, 1975; Durkin, 1984; Pearson, 1985). Relationships between heavy
television viewing and perceptions of self, work, and/or future success may also exist.

For example, Perloff (1975) noted that long-term exposure to the "beautiful" characters who populate soap operas may be related to feelings of low self-worth and dissatisfaction with one's lifestyle. Specifically, exposure to "beauty" ads may result in perceiving "beauty" commercials as a standard for "real-life" roles.

Third, the relationship between television and its viewers may have changed since Tan conducted the study in 1977-1978. His data are now over twelve years old, which raises many important questions. For example, are the findings still relevant? Have the messages in commercials changed since 1977? Have people's perceptions of themselves changed? Have advertising tactics changed? In addition, were the results created by or dependent on methodological factors? For example, were the results design-specific results, sampling-specific results, or method-specific results (Wimmer & Dominick, 1991)?

It is also important to consider the sample. Although Tan (1979) used female adolescents in the
original sample, this study should be done using both female and male undergraduate college students. College is one of a number of times that separate childhood from adulthood. Both males and females attend college and watch television. In addition, college marks the first time many youngsters are "on their own" and responsible for themselves as well as a time to try to find one's own "identity." Evidence of this is offered by Greenberg, Nuendorf, Buerkel-Rothfuss and Henderson (1982). While using cultivation analysis to study soap opera viewing, they claimed that the portrayal of interpersonal relationships among "soap characters" may impact strongly on the expectations and conceptions of college-age female viewers because they are less experienced in matters of romance and love, but yet have or are developing strong interests in this area. Although Greenberg and his associates only studied the expectations and conceptions of females, it should be noted that it is important to study the perceptions of males as well. Upon entering college, males are also "on their own"
for the first time, trying to find their own "identity," and less experienced in matters of romance and love.

Including males in this study is important for several other reasons. Society is filled with an abundance of stereotypes about males and females that are often inaccurate. Both males and females are subjected to stereotyped images in the media that often degrade men and women or portray them as perfect. Growing up with constant exposure to such images raises important questions about individuals' perceptions. Are perfect images of women causing men to have unattainable expectations for women in their daily lives? Are degrading images of women causing men to perceive women as "lower" inadequate beings? Are perfect male images leading females to have unattainable expectations for men? Are degrading images concerning men causing women to perceive men as "lower" inadequate beings? The same questions can be asked for women's and men's expectations of themselves. In order to sufficiently understand the effects of stereotyped images in the media, an examination of the perceptions of both females and males is important.
Furthermore, as this study is examining college students who are in a new environment and "on their own" for the first time, it is important to point out that they may be particularly vulnerable to mass mediated messages, especially those regarding roles and beliefs. Although viewing time may typically decrease during the college years, television is one stable way that college students, away from home for the first time, may obtain important and concrete information. Furthermore, because college students watch less television than other groups, the saturated messages in this study may have a greater experimental impact than with a heavy viewing group. Finally and most importantly, because college students are away from their parents and just starting to create their own "identity" they may look to television for role models as well as talk to each other about television "stars," thus collectively labeling characters as role models.

1.2 Theoretical Orientation

Tan's study (1979) was the first to study TV "beauty" commercials from the perspective of
cultivation analysis. Most importantly, he wanted to study the role of the mass media as "cultivators" of audience perceptions of social reality. More specifically, Tan (1979) was interested in determining the "perceptions about the facts, norms, and values of society through selective presentations and by emphasizing certain themes" (the "beauty" commercials) (p. 283).

Tan's study (1979) differed from previous ones because he used an experimental design rather than a survey. Surveys are typically used in cultivation research because effects are assumed to be cumulative. Tan wanted to discover whether a single, saturated exposure to "beauty" commercials could affect audience perceptions of social reality immediately after exposure (Tan, 1979).

In order to measure perceived importance of sex appeal, beauty, and youth in four real-life roles, Tan (1979) asked his subjects the importance of the following roles: (1) success in career or job; (2) a woman's success as a wife; (3) a woman's popularity with men; and, (4) personally desirable characteristics. Tan (1979) asked how important the
following beauty characteristics (the others were fillers) were for all four of the roles: a pretty face; sex appeal; a youthful appearance; a healthy, slim body; glamour; intelligence; ability to work hard; articulate (good) talker; a good education; competence.

In the original study Tan (1979) found evidence of cultivation. He found that subjects who saw the "beauty" ads were more likely than subjects who saw the neutral ads to give higher importance ratings to beauty characteristics for the roles "to be popular with men" and "for you, personally." For the roles, "success in job or career" and "success as wife" ratings did not differ significantly between the "beauty" group and the neutral group. The "beauty" group also recalled significantly more of the content of the advertisements than the control group, but perceived the commercials as less effective. Thus, Tan (1979) found that for highly personal roles, exposure to TV beauty ads led adolescent girls to place more emphasis on beauty characteristics.

Tan's (1979) results may have been due to methodological factors. Tan (1979) did not indicate if he pre-tested the commercials for specificity,
saliency, interest, or possible stereotypes. For the control commercials, advertisements for dog food, soy sauce, and disposable diapers were used. Durkin (1985) notes that teenagers of either sex probably would not find such commercials salient or interesting. Durkin (1985) further explains that differences in effectiveness ratings could be due to differences in perceptions of the target audience--('self' or 'other')--and that "attributional biases could be implicated in the measures which essentially probe the subjects' perceptions of the causes of people's behavior" (p. 198). As previously noted, Tan (1979) used only two categories of commercials. Furthermore, it is possible that the control products may have been presented in sex-role stereotyped formats (Durkin, 1985). Finally, the results may have been due to the lack of a "no-exposure" condition.

In conclusion, the Tan (1979) study examined exposure to "beauty" commercials on female adolescents' perceptions of the importance of beauty, sex appeal, and youth in various "real-life" roles. Two conditions were examined: Exposure to "beauty" commercials and exposure to "non-beauty" (neutral) commercials.
Stereotypical themes, saliency, and interest in commercial content, however, were not. This study was expanded by considering more specific methods.

This replication was expanded to include five conditions: beauty/sex-appeal commercials, wholesome beauty/youth commercials, macho commercials, non-beauty (neutral) commercials, and no-exposure. The subjects consisted of college-aged males and females in order to ascertain if males and females have different perceptions regarding real life roles, i.e., success in career, success as spouse, popularity or being liked by potential romantic partners and being personally desirable.

Chapter 2 will examine Tan’s (1979) findings, relevant cultivation research, as well as research on sex-role stereotypes in commercials. Ultimately, this study hopes to discover whether television viewing—specifically commercials—molds viewers’ perceptions of reality.
2.1 Cultivation Theory

Television plays an extremely important role in society. The presence of television in today's society is often taken for granted as few people remember what life was like prior to television. Children born in the past 20 years probably do not realize that there was a time without television. Today, the American family owns multiple sets, placing them in "prominent positions" throughout the house.

Most Americans claim that television is their major source of news and information, and in the average American household television sets are turned on for seven hours a day (Morgan & Signorielli, 1990). Because of television's widespread use, it has become the "nation's most common and constant learning environment" (Morgan & Signorielli, 1990, p. 13) about
the world and the people in it. Television's lessons collectively consist of images that constitute the mainstream of our popular culture.

The stories told on television tell viewers about life while both mirroring and leading society. Television creates a picture of "both the good and the bad, the happy and the sad, the powerful and the weak, and who or what is successful or a failure" while also "showing and telling us about people, places, striving power, and fate" (Morgan & Signorielli, 1990, p. 14). Thus, in our daily lives, television provides society with a myriad of messages.

A great deal of research has examined the effects of television's messages on viewers. One fruitful area of investigation is cultivation theory, which examines relationships between overall exposure to television's messages and audience beliefs and behaviors (Gerbner, Gross, Morgan, & Signorielli, 1986).

Cultivation theory examines whether those who spend more of their time watching television are more likely to answer questions reflecting the potential lessons of the television world in terms of television
images. "Cultivation analysis represents a particular set of theoretical and methodological assumptions and procedures designed to assess the contributions of television viewing to people's conceptions of social reality" (Morgan & Signorielli, 1990, p. 15). More simply, cultivation analysis determines the conceptions of social reality that television viewing tends to cultivate in different groups of viewers. In short, cultivation theorists search for differences in perceptions of social reality between light and heavy television viewers in the same demographic subgroups (Gerbner et al., 1986).

Cultivation analysis focuses on the general and widespread consequences of cumulative exposure to cultural media rather than on individual messages' ability to create change in audience members' behaviors (Morgan & Signorielli, 1990). Thus, this perspective posits that the more time spent watching television, the more likely conceptions of social reality will reflect the most common and repetitive messages and lessons on television. Cultivation is a continuous, dynamic, ongoing process of interaction among messages and contexts (i.e., demographics, lifestyle, lifestage)
that influences television viewing audiences. Finally, this perspective claims that television viewing contributes to "the cultivation of common perspectives among otherwise diverse respondents, i.e., mainstreaming" (Signorielli, 1989, p. 342).

Gerbner and his associates (1986) explained the importance of examining how the mass media reflect the mainstream, as defined by the social relationships in a particular society's dominant culture. Furthermore, they claim that because television watching is a daily commonplace activity, for most people there is an accumulated, repetitive exposure to the most general system of messages, images, and values that underlie and cut across the widest variety of programs.

According to these scholars, because "successive generations grow up with television's version of the world, there is a steady entrenchment of mainstream orientations in most cases, and the systematic but almost imperceptible modification of previous orientations in others" (Gerbner et al., 1986, p. 24). In other words, the process of mainstreaming is "affirmation for the believers and indoctrination for the deviants" (Gerbner et al., 1986, p. 24). More
simply, mainstreaming is "the dynamics of the cultivation of general concepts of social reality" (Gerbner, Gross, Morgan, & Signorielli, 1980, p. 10).

Although television is not the most substantial contributor to social reality, it may be the most consistent.

Growing up with a televised version of the world offers a variety of different effects. Television programming and commercials emphasize many different types of themes. Although specific commercials may vary, similar recurrent and stable messages highlighting cultural standards and reflecting social power exist. One particular theme television commercials constantly reveal, emphasizes beauty and gives the message that only the beautiful can attain fame and fortune. Messages are repeatedly conveyed urging viewers that they must either look or act "perfectly beautiful" in order for society to accept them. Thus the area of beauty in the mass media is an important concern. Studies have researched both the existence of "beauty" themes on television as well as the effects of such themes (Downs & Harrison, 1983; 1985; Downs & Robertson, 1980; Kenrick & Gutierres,
The importance of television content, especially "beauty" themes will now be addressed.

2.2 Importance of Content Studies

Children born in today's society live in a world where television watching is a commonplace daily activity. Television not only provides news and information, it is also a storyteller. Its content, particularly its stories, consists of images, portrayals, and values that cut across most types of programs. Its socially constructed version of reality aims at all classes, groups, and ages.

As previously noted, television content consists of recurrent themes and stable patterns. Because recurrent themes and stable images exist on television, viewers may believe such themes and patterns are consistent with reality. However, there are many critical discrepancies between reality and the world as portrayed on television (Morgan & Signorielli, 1990). Identifying and assessing television images, in
both its programming and commercial messages, is the first step in studying its effect on viewers.

The typical person watches an average of 35.7 hours of television per week (Frank & Greenberg, 1980) and over five hours a day. Furthermore, an hour of television includes approximately 20 commercials. Thus, the average American views approximately 714 commercials per week, or over 37,000 commercials per year. It is also important to note that commercials may attract the attention of the "less involved" television viewer through the use of entertainment production techniques, intrusive placement between popular programs and repetition (Atkins & Miller, 1975).

2.3 Important Content Studies

Many studies in the past have focused on the content of television (see, for example, Signorielli, 1985). A large number of studies have found very similar images and themes on television. Signorielli (1990) reported that in samples of daytime serials, children's programming and commercials, women are not
only underrepresented but also presented in stereotypically traditional roles. Many gender-typed roles exist on television, particularly those that allude to physical attractiveness and strength.

2.3.1 Sex-Role Behaviors

Many studies have isolated stereotyped sex-role images in television commercials. McArthur and Resko (1975), using a social learning perspective, concluded that television commercials contained many sex differences. They found that not only were more men than women presented in television commercials, but also that the "basis for the credibility of those men and women who are presented differs as do their roles, their location, their arguments on behalf of a product, and the rewards they reap from using the product" (p. 209).

Bretl and Cantor (1988) found several differences between the portrayal of men and women on television commercials. They too discovered that women were more likely than men to be seen in domestic settings, advertise products in the home (men advertise
products used outside the home), and use the products that they advertise (Bretl & Cantor, 1988). In addition, they found that a "lower percentage of female than male central characters were employed, but males, in increasing numbers, were presented as spouses and parents, with no other apparent occupation" (p. 595).

Lovdal (1989) compared commercials in a sample of 1988 commercials during prime time to those used in an earlier study by O’Donnell and O’Donnell (1978) and found that conventional sex-role stereotypes still existed. Women in television commercials were seen in narrowly defined roles such as housewives or low-level employees, while men were portrayed as non-domestic product representatives. Commercials characterized men as independent, employed, and speaking with the voice of distinction. More specifically, she found that men were pictured in three times the variety of occupations and roles as were women. Finally, consistent with other content studies, she found that sex-role messages were prevalent in television commercials.

In general, past research reveals that women in commercials lack a voice of authority and knowledge, are not seen outside the home as often as males, do not
represent products for domestic items, and are not viewed in wider professional contexts (Lovdal, 1989). Television's portrayal of these combined images conveys stereotypical themes. It is important to ask, consequently, what effects these images have on viewers.

2.3.2 Beauty and Youth

Many studies reveal beauty and youth images in television commercials. Downs and Harrison (1983) using a sample of 4,294 network television commercials aired between 8 a.m. and 10 p.m. on seven consecutive days, examined the frequencies of specific types of verbal stereotypes portrayed in commercials and regular programs. They found that attractiveness statements appeared to be associated with food, drink, and personal care advertisements. Furthermore, a large number of these commercials used female performers with male voice-overs. In general, Downs and Harrison (1983) ascertained that there were a number of television commercials that both contained and emphasized "beauty" and "youth" factors.
For example, their research revealed that "9.3% of all commercials contained a direct statement of beauty . . . approximately one beauty statement for every 10.8 commercials on television" (Downs & Harrison, 1983, p. 4). In addition, they found that 1.7% of all commercials included a direct statement of youth . . . approximately one per 59.6 commercials (Downs & Harrison, 1983). Moreover, the majority of female characters in commercials were between the ages of 20 and 35 (Ferrante, Haynes & Kingsley, 1988).

Past research reveals that commercials featuring youth and especially beauty themes occur very frequently on television. Moreover, Downs and Harrison (1983) suggested that television commercials harbor a great number of attractiveness stereotypes within them, implying many common characteristics that degrade women. For example, many women are portrayed as "ugly" or "bad" because they do not use the advertised product.

Commercials that use beauty and youth themes are important because they can have negative effects on viewers. Commercials that emphasize youth, for example, the slogan "it's a Pepsi generation," can
create anxiety and tension among the elderly, which "encourages display of symptoms of intellectual impairment" (Comstock, Chaffee, Katzman, McCombs, & Roberts, 1978, p. 308) The effect of beauty commercials is a similar concern; viewers who are unattractive may develop feelings of tension and frustration. It is important to recognize these themes and study their effects.

2.3.3 Sex Appeal

The use, or rather misuse of sexual appeal by sellers in advertisements is very popular. However, in the past there has been little empirical research that has focused on the presence of sexual appeal in advertisements and commercials. Marketing and advertising textbooks claim that the use of sex appeal in advertising has the power to demand attention and move merchandise (McCarthy, 1981). Nevertheless, in order to better understand the use of sexual themes in advertising, scholars need to verify their existence as well as study their effects.
Fowles (1982) examined 15 basic appeals in advertising, noting that the need for sex is portrayed in advertisements. He claims that 2% of advertisements actually seek the audience's need for sexual intercourse (Fowles, 1982). It was found that the need for affectionate human contact was used in advertisements. Affectionate human contact is "sexual" in nature because it allows for sexual imagery. The portrayal of sexual imagery emphasizes the need for sex appeal as much as sexual intercourse.

Saporito and Goldberg (1982) examined the use of sex appeal in three pairs of prescription drug advertisements that appeared over a period of approximately ten years. The results indicated that sexually-oriented advertisements were sometimes used in advertising directed toward physicians. In addition, they found that sexual themes were more frequently used for non-life-threatening conditions. This sexually-oriented content supports the notion that sellers use sex to sell.

Past research has also examined the prevalence of violence and sex in television advertisements. The concept of "baiting," the process by which networks use
violence and sex appeals in their advertisements in order to "bait" audience members into a feeling of closeness with the program, was coined by Melody (1973). Soley and Reid (1985), using Melody's notion of "baiting," examined whether violence and sex were emphasized in advertisements for television programs. They found that violence and sex were predominant features, especially in network program advertisements. Moreover, these advertisements tended to be larger than other program advertisements.

Soley and Reid's (1985) study relates to this one for several reasons. First, "sex" themes are predominant in television commercials (Reid & Soley, 1985); therefore viewers are constantly exposed to them. Second, exposure to constant and consistent themes potentially can have effects on viewers. Continuous exposure to recurrent themes on television have been shown to distort perceptions of social reality. Therefore, constant exposure to "sex" themes on television commercials may cause "sex-emphasized" views of social roles.
2.3.4 Macho

Past research indicates that there have been only a few studies that have examined male sex-role models in television commercials. Meyers (1980) examined the male sex-role model in prime-time television commercials. She found that television males were "locked into certain recurrent images and roles and the existence of male sex-role stereotyping is a reality" (p. 12). For example, some common and recurrent images were that males often exhibit more authority, superiority, dominance, and less affection, but were more hard-working than females. They also acted as rugged individualists, focusing on automobiles, automobile-related products, alcohol and food (Meyers, 1980).

Her results indicated that traits and behaviors were systematically rated as characteristic of separate categories of males: the "family man," the "business man," and the "macho male." In addition, she concluded, based on past cultivation research (for example, Gerbner, Gross, Jackson-Beeck, Jeffries-Fox, & Signorielli, 1978; Gerbner, Gross, Signorielli, Morgan,
& Jackson-Beeck, 1979), because "television has the power to influence/teach both violent behavior and political attitudes, then television can also play a role in influencing/teaching sex-role behaviors and attitudes" (Meyers, 1980, p. 5).

2.4 Relevant Cultivation Studies

Cultivation analysis generally begins with recognizing and assessing the most current and stable patterns in television content, and ends with measuring its effects. Once this analysis of content or analysis of common themes and messages on television is completed, specific questions are created and posed to various groups. Questions related to identifiable aspects of the television world as well as television viewing are equally important because "the shape and contours of the television world rarely match objective reality, though they often do match dominant ideologies and values" (Signorielli & Morgan, 1991, p. 18).

The cultivation hypothesis has received support in numerous studies examining a number of different
topics with samples of all ages. One important area of investigation has focused on conceptions of sex-role behaviors.

2.4.1 Sex-role Behaviors

Morgan (1982) found that among adolescent girls there was a significant longitudinal impact on sex-role attitudes and amount of television viewing. However, he found no evidence that the girls' degree of sex-typing subsequently led to television viewing. The longitudinal effects for adolescent boys were the reverse of those found for girls. There was no longitudinal impact on boys' sex-role attitudes, but sexism did foreshadow greater viewing.

Frueh and McGhee (1975) using a sample of children in kindergarten, second, fourth, and sixth grades, found that increased television viewing was clearly related to stronger traditional sex-role development. Furthermore, they note that this relationship held equally for boys and girls as well as across all four age groups. In a later study, using a sample of kindergarten children, McGhee and Frueh
(1980) found that increased television viewing correlated with the viewers' stronger belief in social stereotypes in addition to attributing higher status role models to men rather than to women.

Preston (1990) studied pornography and the social construction of gender and sexuality from a cultivation perspective. Preston points out the importance of studying the existing "social structures built on sex-based inequalities" (p. 109) to fully understand the impact of pornography. More simply, pornography consists of definite stereotypes about women, and men to some degree, concerning roles, traits and sexuality.

Preston (1990) found that the relationship between exposure to pornography and gender stereotyping was very different for men and women. The data indicate that for men, exposure to pornography was consistently associated with relatively high stereotyping, particularly around gender-appropriate sex-roles and perceptions of male and female sexuality. In almost all female subgroups no significant associations between exposure to pornography and sex-role stereotyping existed. In addition, the
"correlations between gender-stereotyping and sex-traits (and sexuality, though not significantly), were consistently negative" (Preston, 1990, p. 121). This study provides support that exposure to pornography functions to preserve existing sex-based inequalities as well as gender differences.

Lull, Hanson, and Marx (1977) studied the degree to which college women and men were sensitive to the sex-role stereotyping of females in television commercials. They found that in commercials that clearly portrayed women in female stereotypical manners, "fewer than half of the subjects recognized these media portrayals as sexist" (Lull et al., 1977, p. 156). These results support possible cultivation effects because viewers are constantly exposed to certain television themes that they do not hold as different from their conceptions of social reality.

Geis, Brown, Walstedt, and Porter (1984) studied the effects of traditional and nontraditional roles for women and men in television commercials on the aspirations of women and men. They found that when commercials contain sex-stereotypes, women, compared to
men and to women who had seen reversed sex-role commercials, de-emphasized achievement in favor of homemaking.

Volgy and Schwartz (1980), using a sample of registered voters in a Southwestern city, found a positive relationship between viewing entertainment programs and the acceptance of traditional sex-roles. Ross, Anderson, and Wisocki (1982), utilizing a sample of college students and adults, found that the amount of sex-role stereotyping obtained through self-descriptions was positively correlated with the amount of viewing of stereotyped television programs.

Signorielli (1989) examined the relationship between television viewing and sex-role stereotyping. More specifically, this study explored the images of men and women in an annual sample of prime-time network dramatic television programming, and the relationship between television viewing and having sexist views of roles of men and women in society. This research first focused upon character images, finding that the men and women who populate prime-time network dramatic programs are portrayed in traditional and stereotypical ways. This research reveals that over the past 17 years the
images have been rather stable, very traditional and generally supportive of the status quo. For example, the image conveyed by prime-time television is that not only should women (especially if married) stay home, but they should also leave the world of work to the men. These images, consequently, present a message that is quite different from the situation that exists in the "real world."

Furthermore, the cultivation analysis, a secondary analysis of data from the National Opinion Research Center (NORC) General Social Surveys, provided some evidence that television viewing may be related to more sexist views of women's role in society (Signorielli, 1989). More specifically, she found that there is a positive relationship with television viewing, for men, women, whites, liberals, those with some college education, middle-class, and middle-aged respondents, when heavy viewers, to give sexist responses.

Past research has also focused on college students and soap opera exposure. Buerkel-Rothfuss and Mayes (1981) found that exposure to soap operas was related to perceptions about people and events. More
specifically, they found that exposure to soap operas was related to holding negative stereotyped perceptions of women. Finally, Buerkel-Rothfuss and Mayes (1981) examined the possibility that heavy exposure to soap operas may have detrimental effects on viewers' own life satisfaction and self-concept.

This concern is relevant to my proposal because some scholars claim that "long term exposure to the 'beautiful' characters who populate soap operas may cause feelings of low self-worth and dissatisfaction with one's lifestyle" (Buerkel-Rothfuss & Mayes, 1981, p. 110). The same type of detrimental effects can occur with heavy viewers of television commercials that use heavy beauty, sex-appeal, youth, and/or macho appeals to sell products.

2.4.2 Effects of Beauty and Youth Themes

Past research indicates that there is strong reason to believe that television socializes attractiveness stereotypes (Downs & Harrison, 1985). Although there is not an abundance of research in this
area, several scholars have studied the impact of television attractiveness on viewers.

For example, Kenrick and Gutierres (1980) found that when adults were exposed to highly attractive television performers they consequently had lower evaluations of a nontelevision stimulus person. In the first of three studies, males were first exposed to a popular TV show that featured three highly attractive characters, then asked to rate a photo of an average woman. These subjects rated the target female (one in the photo) as significantly less attractive than did a comparable control group. Similar findings were evident in more controlled laboratory settings as well. In addition, Downs and Robertson (1980) found that when college-aged adults were asked to evaluate selected (attractive-based) television characters, they tended to offer attributions consistent with "beauty is good" stereotypes.

2.4.3 Effects of Sexual Themes

In the original study, Tan (1979) looked at television commercials that used sexual themes to sell
products. However his results did not specify the individual effects of beauty, youth, and sex commercials. As previously stated, he found cultivation effects in those who were exposed to the "beauty" commercials as a whole.

Few studies have ventured into the effects of sexual themes in television commercials. However, there has been some research on the effects of sexual themes in advertisements. Severn, Belch, and Belch (1990) used a sample of 180 18- to 26- year-old students in examining the role of visually explicit sexual stimuli in the processing of verbal information in a persuasive message and the resulting effect on recall, attitudes, behavioral intentions, and higher-order cognitive response measures.

They found that the use of a sexually explicit advertising appeal did not interfere with subjects' ability to recall a brand name, but did have a negative effect on copy-point recall (Severn, Belch, & Belch, 1990). More simply, the use of sexual appeal appears to interfere with message comprehension, and processing tends to focus more on the execution of the message in
terms of its sexual elements, "drawing cognitive processing away from evaluation of the product and/or the message."

Richmond and Hartman (1982) also studied the effects of advertisements that contained sexual themes. In the first part of their study 50 adults were used to label advertisements, collected over a period of several years, into one of five "sexy" categories. The "functional" category represents those products presented in a straightforward sexual manner, for example, undergarments and personal hygiene products.

The "fantasy" dimension represents those products that elicit some sort of fantasy gratification or wish fulfillment in viewers. "Symbolism" in advertisements employs the use of sexual symbols to influence perception of male and female products. For example, some advertisements use the symbol of "silk" as feminine, and use the symbol of "wool tweed" as masculine.

"Inappropriate" advertisements are those that use sex appeal primarily as an attention device, bearing little or no relationship to the product and often shadowing the product message. Usually these
advertisements exploit the female body, degrade the feminine role, and insult propriety (Hartman & Richmond, 1982).

Finally, the "male/female orientation" dimension promotes the products by predominantly addressing either a male or female target audience. For example, advertising bras targets females, while advertising after-shave lotion targets males. This dimension was used to determine whether products were targeted towards males or females.

The effects of recall between ad component and brand or advertiser was examined using a sample of 384 adults randomly selected in the Athens, Ohio area (Richmond & Hartman, 1982). Those advertisements employing "inappropriate" themes were most "incorrectly" recalled while those using "symbolism" themes were most "correctly" recalled. This study strongly implies that while sex appeal in advertisements produces results, advertisers must be cautious as to the implications of particular appeals.

In conclusion, it is important to study the effects of sex-role, beauty and youth, as well as sexual themes on television. Not only are viewers
constantly exposed to and affected by common and stable themes on television, but according to the cultivation hypothesis they also perceive their own roles in similar ways. Thus, because television is such a commonplace and popular activity, it contributes a great deal to the maintenance of the status quo with regard to sex-role, attractiveness, youthful, and sexy standards.

2.5 Social Cognition Theory and Priming

Another relevant theoretical perspective that may explain media effects is Social Cognition Theory. Based on the premise that people cannot retain all the information that the environment offers and that they must be able to simplify and organize their perceptions, this perspective focuses on cognitive structures and the ways that social information (stimuli) is (are) processed.

One way that Social Cognition Theory explains media effects is by a concept called priming. Priming is a temporary effect that occurs when certain thoughts or cognitive frameworks are activated and used to
evaluate subsequent stimuli. Some models hold that the activation of certain relevant ideas can spread to other related concepts in a cognitive network that will also be used in subsequent evaluations and judgments.

Many researchers have studied priming and assert that the media can prime viewers. Berkowitz and Rogers (1986) found that "when people witness, read, or hear of an event via the mass media, ideas are activated which, for a short time, tend to evoke other semantically related thoughts" (p. 58). And, because the mass media is one way that people gain information, this information has the ability to bring related thoughts out from memory. When viewers are primed by the mass media, for a short time thereafter, they may interpret information and events in terms of the primed information, in order to make sense of the stimuli (Roloff & Berger, 1982).

Although a priming effect is only temporary, there are long-term implications. As related thoughts are recalled from memory, they become the temporary basis that we use to evaluate stimuli in following encounters. If ideas or concepts are primed repeatedly, in time they may become more readily or
"chronically" accessible (Bargh, Bond, Lombardi, & Tota, 1986). Thoughts that are "chronically" accessible are often recalled from memory and become more likely to be activated again. Hansen and Hansen (1988) propose that long-term chronic effects can be anticipated from repeated activation.

These schemas that cause short- and long-term effects can "provide a construction of social reality--a reality, that may appear as fact, not as an interpretation" (Hansen & Hansen, 1988, p. 292). Priming effects may help explain how long-term media effects, such as those explained by cultivation, come about.

2.6 Priming and Cultivation

Although Tan (1979) explained his effects by cultivation, they can also be interpreted by the priming effect. The "beauty" commercials emphasized themes that activated (primed) certain schema that linked the concept of "beauty" with the concept of
"success." This schema was then used to evaluate the importance of beauty in everyday roles in society.

As previously noted, long-term priming results in repeated activation. Repeated exposure results in continuous priming of viewers. These long-term effects are consistent with the cultivation hypothesis. Gerbner and his associates (1980) argue that not only does television violence produce a relatively temporary change in observers' attitudes concerning aggression, but it may also cultivate long-lived conceptions of the social environment as wicked and dangerous. It is important to note that lasting beliefs or attitudes are more probable when "other crucial influences are present for the activated ideas to be learned so that one's conception of the world is affected for an appreciable length of time" (Berkowitz & Rogers, 1986, p. 66).

In this experiment, subjects were only exposed to approximately 11-12 minutes of commercials. On one hand, this is priming because it is a short twelve-minute exposure. But, on the other hand, subjects probably have been exposed to similar themes numerous times in the past. Thus, related schema may be
activated from themes to which they previously were continually exposed.

2.7 Priming Studies

Priming has received support in many different areas of investigation. One early area of investigation found short-term priming effects in subjects (Srull & Wyer 1979). Srull and Wyer (1979) found that when subjects were unknowingly primed with either hostility-related or kindness-related items, they were subsequently more likely to evaluate further stimuli in terms of relevant primed schemata. Further research by Wyer and Srull (1981) found that the priming effect influenced people's reactions to others. In this experiment, subjects presented with words having hostile connotations made hostile evaluations of an ambiguous target person. Extending this research, Carver, Ganellen, Froming, and Chambers (1983) discovered that when people watched a brief film depicting hostile interactions between a businessman and his secretary they subsequently perceived more hostility in an ambiguous person.
The priming effect was also tested with rock music videos (Hansen, 1989; Hansen & Hansen, 1988). In the 1988 study, a sample of 121 undergraduate women and 100 undergraduate men were exposed to music videos either with or without gender stereotypic portrayals, and then viewed and appraised a videotaped male-female interaction. When sex-role stereotypic schemas were primed by the music videos, impressions of the interaction were significantly changed. Subjects who viewed the stereotyped videos were more likely to use sex-role stereotypic schemas that affected subsequent appraisal of a male-female interaction, and "shift the meaning of traits" (Hansen & Hansen, 1988, p. 309) and think that the men and the women were in more stereotypical roles. When sex-role schemas had not been primed, no change was evident.

In addition, Hansen (1989), also using a sample of male and female undergraduate college students, examined the effects of priming using sex-role stereotypic schemas in rock music videos. In this case the rock music videos were a priming stimuli that produced "strong, predictable, and nonconscious cognitive effects on viewers" (Hansen, 1989, p. 371).
More specifically, the portrayal of a sex-role stereotypic event in popular rock music videos had a "significant and predictable effect on appraisal, impressions, and memory of a man and a woman engaging in sex-role stereotypic social interaction" (p. 386). Thus, as result of seeing the rock music videos and processing the relevant schema, other relevant schema were activated thereby increasing the likelihood that closely related concepts and behaviors would be processed and recalled (Hansen, 1989).

Priming has also received support in the effects of aggressive pornography (Malamuth & Check, 1981; 1985). Malamuth and Check (1981) found that after males were exposed to movies depicting sexual violence, they were more likely to indicate that violence against women was occasionally acceptable.

In further research, Malamuth and Check (1985), using a sample of 307 male undergraduate students, examined the effects of aggressive pornography on beliefs about rape myths. Subjects first listened to one of eight audiotaped versions of a passage of an aggressive pornographic scene, one of which portrayed the myth that rape results in the victim's sexual
arousal. Then, subjects listened to a second passage depicting either consenting or non-consenting sex. Malamuth and Check (1985) found that males who were primed with a version of a pornographic scene in which females were aroused and appeared to enjoy sexual aggression were more likely to become more aggressive and accept the myth or stereotype that women enjoyed rape.

In conclusion, studies have shown that the mass media can prime stereotypes of male-female interactions and roles. This evidence is important because as a result of the abundance of stereotypes in the media, viewers are constantly primed. Thus stereotypes become more easily accessible and longer lasting.

2.8 Summary

Past research indicates an existing need for continued examination of the effects of television commercials. Both the cultivation hypothesis and the priming perspective attempt to explain such effects. Tan (1979) studied the effects of "beauty" commercials. However it has been twelve years since his research was
conducted. It is important to answer both the same questions that he asked as well as additional relevant questions. Therefore, a replication of Tan’s study would provide significant information about the relationship between viewing television commercials and viewers’ perceptions of reality.

2.9 Hypotheses and Research Questions

The main objective of this study was to determine the effects of exposure to beauty/sex, wholesome beauty/youth, and macho commercials on the perceived importance of similar themes in the social relations of both male and female college students.

Research has shown that beauty, sex appeal, youth, and macho appeal in television commercials cultivates viewers to perceive media-emphasized roles of social reality. Scholars have found that commercials using beauty/sex, and/or youth (Tan, 1979) and sex-role stereotyping (Geis et al., 1984; Lull et al., 1977) have cultivated media-emphasized views in social relations.
The first set of hypotheses postulates that subjects in the beauty/sex condition will rate the importance of sex-related characteristics (sex appeal, sensuousness, and an attractive face) higher in their real-life roles than groups that do not view the beauty/sex commercial content. Males and females will differ in their responses for the importance of sex-related characteristics.

H₁: (a) Subjects who see beauty/sex commercials will rate the importance of sex-related characteristics higher for the role "success in job or career," and

(b) Male and female responses will differ for the importance of sex-related characteristics regarding the role "success in job or career."

H₂: (a) Subjects who see beauty/sex commercials will rate the importance of sex-related characteristics higher for the role "success as a spouse," and
(b) Male and female responses will differ for the importance of sex-related characteristics regarding the role "success as a spouse."

\[ H_3: \]
(a) Subjects who see beauty/sex commercials will rate the importance of sex-related characteristics higher for the role "to be popular with, or liked by potential romantic partners," and

(b) Male and female responses will differ for the importance of sex-related characteristics regarding the role "to be popular with, or liked by potential romantic partners."

\[ H_4: \]
(a) Subjects who see beauty/sex commercials will rate the importance of sex-related characteristics higher for the role "personally desirable characteristics for you," and

(b) Male and female responses will differ for the importance of sex-related characteristics regarding the role "personally desirable characteristics for you."
In addition to studying the effects of beauty/sex themes on television commercials, research has also examined the effects of wholesome beauty/youth themes (Tan, 1979). Scholars have found that heavy television viewing cultivates perceptions of reality based on beauty and youth themes (Downs & Harrison, 1985; Downs & Robertson, 1980; Kenrick & Gutierres, 1980;) and sex-role stereotyping (Frueh & McGhee, 1975; 1980; Morgan, 1982; Preston, 1990; Signorielli, 1989; Volgy & Schwartz, 1980).

The second set of hypotheses postulates that subjects in the wholesome beauty/youth condition will rate the importance of youth-related characteristics (an attractive face, healthy, well-toned body, youthful appearance) higher in their real-life roles than groups that do not view the wholesome beauty/youth commercial content. Males and females will differ in their responses for the importance of youth-related characteristics.
H₃: (a) Subjects who see wholesome beauty/youth commercials will rate the importance of youth-related characteristics higher for the role "success in job or career,"

(b) Male and female responses will differ for the importance of youth-related characteristics regarding the role "success in job or career."

H₄: (a) Subjects who see wholesome beauty/youth commercials will rate the importance youth-related characteristics higher for the role "success as a spouse," and

(b) Male and female responses will differ for the importance of youth-related characteristics regarding the role "success as a spouse."

H₅: (a) Subjects who see wholesome beauty/youth commercials will rate the importance of youth-related characteristics higher for the role "to be popular with, or liked by potential romantic partners," and
(b) Male and female responses will differ for the importance of youth-related characteristics regarding the role "to be popular with, or liked by potential romantic partners."

$H_s$: (a) Subjects who see wholesome beauty/youth commercials will rate the importance of youth-related characteristics higher for the role "personally desirable characteristics for you," and

(b) Male and female responses will differ for the importance of youth-related characteristics regarding the role "personally desirable characteristics for you."

In addition to examining beauty/sex and wholesome beauty/youth themes on television commercials, this study also explores macho male themes. Past research has revealed that certain traits and behaviors exist for males on television commercials, and that males are indeed "locked into" certain roles (Meyers, 1980).
The third set of hypotheses postulated that subjects in the macho commercial content condition will rate the importance of macho-related characteristics (ruggedness, toughness) higher in their real life roles than groups that do not view the macho commercial content. Males and females will differ in their responses for the importance of macho-related characteristics.

$H_3$: (a) Subjects who see macho commercials will rate the importance of macho-related characteristics higher for the role "success in job or career," and

(b) Male and female responses will differ for the importance of macho-related characteristics regarding the role "success in job or career."

$H_{10}$: (a) Subjects who see macho commercials will rate the importance of macho-related characteristics higher for the role "success as a spouse," and
(b) Male and female responses will differ for the importance of macho-related characteristics regarding the role "success as a spouse."

\(H_{11}:\) (a) Subjects who see macho commercials will rate the importance of macho-related characteristics higher for the role "to be popular with, or liked by potential romantic partners," and

(b) Male and female responses will differ for the importance of macho-related characteristics regarding the role "to be popular with, or liked by potential romantic partners."

\(H_{12}:\) (a) Subjects who see macho commercials will rate the importance of macho-related characteristics higher for the role "personally desirable characteristics for you," and

(b) Male and female responses will differ for the importance of macho-related characteristics regarding the role "personally desirable characteristics for you."
In addition to examining cultivation and gender effects of perceptions of real-life roles, past research has also focused on perceived effectiveness, liking, and product recall (Tan, 1979). Tan (1979) found that those subjects who were exposed to "beauty" commercials recalled more commercial content than those who were exposed to neutral commercials. However, Tan (1979) also found that subjects exposed to "beauty" commercials perceived them as less effective than subjects exposed to neutral commercials. $H_3$--$H_8$ examine condition differences for degree of product recall, perceived effectiveness of commercials, liking and interest in commercials. In addition, for consistency purposes, research questions (RQ$_1$--RQ$_4$) will explore gender differences for degree of recall, perceived effectiveness of commercials, liking, and interest in commercials.

$H_{13}$: Subjects who see beauty/sex, wholesome beauty/youth or macho commercials will differ in their degree of recall than those who see neutral commercials.
RQ1: Will males and females differ in the degree that they recall product names?

H1: Subjects who see beauty/sex, wholesome beauty/youth or macho commercials will differ in their perceptions of commercial effectiveness than those who see neutral commercials.

RQ2: Will males and females differ in their perceptions of how effective the commercials are at selling the advertised product?

H2: Subjects who see beauty/sex, wholesome beauty/youth or macho commercials will differ in how much they like the commercials than those who see neutral commercials.

RQ3: Will males and females differ in how much they like the commercials?
$H_s$: Subjects who see beauty/sex, wholesome beauty/youth or macho commercials will differ in how much they are interested in the commercials compared to those who see neutral commercials.

$RQ_s$: Will males and females differ in how much they are interested in the commercials?
Chapter 3

METHODS

3.1 Experimental Design

A 5 x 2 (commercial type X gender) experimental design, expanding on Tan's (1979) basic framework, was used to test the effects of beauty/sex, "wholesome" beauty/youth and macho commercials on evaluations of four real-life roles in male and female college students. This experiment expanded on Tan's (1979) work in several ways. First, more recent, up-to-date commercials relevant to younger viewers were used. Second, a larger and more diverse sample of college students was used. Third, additional dependent measures were incorporated. Fourth, following the experiment, participants who were exposed to the "beauty" and "macho" commercials were debriefed.
3.2 Pretesting the Stimuli

The first step of the research was to create stimulus tapes consisting of commercials that measured the four conditions of the experiment. In order to identify appropriate commercials, the following operational definitions were used:

3.2.1 Definition of Conditions

(1) Beauty and/or sex appeal commercials
These commercials portrayed characteristics that emphasized beauty and/or sex appeal, such as: Beautiful, lovely, elegant, gorgeous, handsome, radiant, polished, pretty, attractive, cute (Downs & Harrison, 1983), asserted or implied visual portrayals and depictions of and verbal referents to sexual behavior (i.e., intercourse; petting; visual depictions of sexy, suggestive dancing/movements; "come-hither" looks) (Greenberg, Graef, Fernandez-Collado, Korzenny, & Atkin, 1980). Beauty and/or sex appeal commercials were operationally defined as those commercials whose
major focus was on beauty and/or sex appeal to sell a product.

(2) **Wholesome beauty/youth commercials**

The second level had a focus on beauty, with emphasis on "wholesomeness" and youth. Commercials that emphasized youth included the following characteristics: young, look young, feel young, young-looking skin, act young (Downs & Harrison, 1983).

**Wholesome beauty and youth commercials** were operationally defined as those commercials that used either wholesome beauty or youthfulness to sell a particular product.

(3) **Macho commercials**

Commercials that emphasized macho characteristics included: boldly making eye contact with a girl, a man proud of his muscles, male getting into a chug-a-lug contest at a party, knew that women found him attractive, went out at the local gym, planned to go drinking at the local bar, went out with the boys on Saturday night, flirted with the clerk—flirt, rough, rugged, tough, immature, boisterous, adventurous, daring, bold, impulsive (England & Hyland, 1985, p. 12)

**Macho commercials** were operationally defined as those
commercials that used traditional masculine characteristics such as a man being rough, tough, athletic, rugged, bold or adventurous to sell a product.

(4) Neutral Commercials
The fourth level, neutral commercial content, did not contain any "beauty" or "macho" related images. Neutral commercials were operationally defined as those commercials that did not contain beauty, sex, youth, or macho related images to sell products. Such commercials used the actual benefits of a particular product to sell it.

3.2.2 Pretests

Nineteen or twenty commercials were identified that focused on the four types of commercials. The commercials were gathered from television programming a college student population is likely to watch, such as network broadcast programming (ABC, NBC and CBS) and cable programming (MTV, Philadelphia 57, Philadelphia 17 and Channel 29).
Beauty/sex, wholesome beauty/youth, macho, and neutral commercials were pretested in four upper level Communication classes during the spring 1992 semester. Videotapes of the 19 or 20 commercials for each of the four sets of commercials were shown to four different classes, one set per class, who then rated each of the 20 commercials on several semantic differential scales designed to assess levels of interest as well as stereotypical perceptions (see Appendix A).

3.2.3 Pretest Results

The stimulus materials were evaluated in order to determine both their interest levels and that they were tapping the intended stereotypes. The results of the pretest are in Appendix B.

Eighteen subjects pretested 20 beauty and/or sex appeal commercials. The results of this pretest indicated that all 20 commercials had beauty or sexual appeal. Therefore, all 20 commercials were used in the experiment.
Between 17 and 19 subjects (two students came late) pretested the wholesome beauty and/or youth commercials. Nineteen commercials were pretested. As a direct result of this pretest, two commercials were replaced and one was added for the experiment. Only 64% of the subjects rated a Nexus Shampoo commercial as using beauty appeals while 23% said that the Nexus commercial used sexual appeals to sell. Because of the high percentage of sexual appeals, the Nexus commercial was replaced with Vibrance Shampoo and Conditioner.

Second, the Dove soap commercial was replaced. Only 47% of the subjects said that this commercial used "beauty" themes to sell the product. It was replaced with a commercial for Jhirmak Shampoo and Conditioner. In addition, a twentieth commercial was used, "Oil of Olay (foaming face)." The theme of this commercial was similar to the other two Oil of Olay commercials, but advertised the "foaming face" product.

Between 15 and 17 subjects (two students came late) pretested 20 macho commercials. All of the commercials except for one were used. Only 13% of the subjects found the "Nike" commercial to illustrate
macho themes; thus it was replaced with a "Nestle Crunch" commercial.

There were no beauty, sexual, or macho themes isolated by the eighteen subjects in any of the 20 neutral commercials. Therefore, all 20 neutral commercials were used in the experiment. So, the pretest not only tested the commercials, but demonstrated that expected stereotypes (beauty/sex, youth, and macho) were present in commercials and that the stereotypes were distinct across conditions.

3.2.4 The Faculty Panel

The last step of the pretest was to show that the commercials represented each of the four conditions to a three-member faculty panel. The panel viewed the commercials and judged them to represent the images that were intended.

3.3 The Stimuli

As a result of the pretests, four sets of 20 commercials were used to create the final videotape of
stimuli. The commercials included in each condition are listed in Appendix C. Adjacent to each commercial is its length in seconds. The stimuli were edited with eight seconds of black screen between each of the 20 commercials.

The commercials that Tan (1979) used and those included in the present study differ a great deal. Since Tan’s data were probably collected in 1977 or 1978, his commercials would be dated today. Thus, this experiment uses recently broadcast commercials. Tan (1979) also did not consider viewers’ interests or perceptions of stereotypes in the commercials; consequently, this experiment used commercials that were both salient and relevant to youngsters and scrutinized for possible stereotypes.

3.4 Subjects

The sample consisted of 253 undergraduate students enrolled in either a large introductory Communication class (Mass Media and Society) or a small nonmajor Communication class (Oral Communication in Business). Men and women in the Mass Media and Society
course were required (five points) to either participate in this experiment or write a letter to an advertiser. Those students in Oral Communication in Business were offered three extra credit points for participation in the experiment.

The goal was to include 20-25 subjects in each cell. The subject pool was made up of 137 females and 116 males whose ages ranged from 17 to 23 with a mean age of 19.78 (sd = 1.39). The sample was somewhat equally divided by grade: 21.4% freshmen, 24.6% sophomores, 21% juniors, and 16.3% seniors (16.7% of the entire sample did not respond because that information was not collected for the no-exposure condition). Table 3.1 represents the final number of subjects in each condition by gender.

Table 3.1
Crosstabulation of Gender by Condition

<table>
<thead>
<tr>
<th></th>
<th>SEX</th>
<th>YOUTH</th>
<th>MACHO</th>
<th>NEUTRAL</th>
<th>NO-EXPOSURE</th>
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<tbody>
<tr>
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<td>25</td>
<td>33</td>
<td>29</td>
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<td>24</td>
</tr>
<tr>
<td>MALE</td>
<td>24</td>
<td>26</td>
<td>25</td>
<td>21</td>
<td>20</td>
</tr>
</tbody>
</table>
3.5 Independent Variables

The experiment incorporated two independent variables: Gender of subject and type of commercial. Subjects were grouped by gender, (1) male, and (2) female. The type of television commercial had five conditions: (1) beauty and/or sex appeal commercials; (2) wholesome beauty and/or youth appeal commercials; (3) macho commercials; (4) neutral commercials; and (5) no-exposure.

3.6 Dependent Variables

The dependent measures were in two questionnaires: (1) The "Perceptions of Social Roles" post-exposure questionnaire (see Appendix D) that included Tan’s (1979) dependent measures, and (2) The "Commercial Evaluation" post-exposure questionnaire (see Appendix E). The "Commercial Evaluation" questionnaire measured subjects’ evaluations of the stimuli (commercials).
3.6.1 Measuring Perceptions of Social Roles

Subjects' perceptions of social roles were measured with a questionnaire asking how important fourteen adjectives were for them in their own four real-life roles. For each role, subjects were asked to indicate how important [(3) very important (2) quite important (1) not too important or (0) not at all important] each of the fourteen characteristics were for them to possess. The four "real-life" roles included: (1) success in career or job; (2) success as a spouse; (3) to be popular with (or liked by) potential romantic partners; and (4) "for you, personally to be desirable." These were taken directly from Tan's (1979) design.

For every role, Tan (1979) asked subjects to rank the top five characteristics, while this study asked how important each of the 14 characteristics were for them. The 14 characteristics were: sex appeal, hard-work*, a youthful appearance, ruggedness, being articulate (good-talker)*, a healthy, well toned body, a good education*, being sensuous, being classy*, competence*, an attractive face, intelligence*,
wholesomeness and toughness. Those characteristics marked by (*) were filler items.

The characteristics (excluding the filler items and wholesomeness) were designed to represent each of the three types of commercials (sexy, youthful, and macho). The following characteristics were included in each group.

**Sexy:** sex appeal, sensuous, attractive face

**Youth:** youthful, healthy, well-toned body, attractive face

**Macho:** rugged and tough

These groups were designed to achieve parsimony in measurement over the four roles and so that each condition would have an appropriate and specific dependent variable. Although "wholesomeness" was not originally specified as a filler item, the results of the preliminary reliability analysis revealed this characteristic was tapping another dimension. "An attractive face" was included in both the sexy and youth groups; elimination of this characteristic in the indices reduced the overall level of reliability.
A total of 12 summative indices (dependent variables) was created. Three indices, representing the image dimensions, were created for each of the four roles (personally to be desirable, success as spouse, popular with potential romantic partners, and success in career). Scores on the Sexy and Youth indices ranged from 0 to 9; scores on the Macho Index ranged from 0 to 6. Cronbach's Alpha was used to test the reliability for each index. A list of the indices, Cronbach's alpha, the mean score and standard deviation for each index are listed in Table 3.2.
Table 3.2
Role/Scale and Index:
Alphas, Means and Standard Deviations

<table>
<thead>
<tr>
<th>Role</th>
<th>Index</th>
<th>$\alpha$</th>
<th>M</th>
<th>sd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personally desirable:</td>
<td>Youth--Personal $^a$</td>
<td>.690</td>
<td>5.88</td>
<td>1.78</td>
</tr>
<tr>
<td></td>
<td>Sexy--Personal $^a$</td>
<td>.700</td>
<td>6.19</td>
<td>1.63</td>
</tr>
<tr>
<td></td>
<td>Macho--Personal $^b$</td>
<td>.744</td>
<td>2.41</td>
<td>1.29</td>
</tr>
<tr>
<td>Success Spouse:</td>
<td>Youth--Spouse $^a$</td>
<td>.855</td>
<td>4.83</td>
<td>1.85</td>
</tr>
<tr>
<td></td>
<td>Sexy--Spouse $^a$</td>
<td>.773</td>
<td>6.02</td>
<td>1.66</td>
</tr>
<tr>
<td></td>
<td>Macho--Spouse $^b$</td>
<td>.777</td>
<td>2.24</td>
<td>1.19</td>
</tr>
<tr>
<td>Popular Romantic</td>
<td>Youth--Popular $^a$</td>
<td>.628</td>
<td>6.33</td>
<td>1.57</td>
</tr>
<tr>
<td>Partners:</td>
<td>Sexy--Popular $^a$</td>
<td>.687</td>
<td>6.98</td>
<td>1.47</td>
</tr>
<tr>
<td></td>
<td>Macho--Popular $^b$</td>
<td>.725</td>
<td>2.19</td>
<td>1.57</td>
</tr>
<tr>
<td>Success Career:</td>
<td>Youth--Career $^a$</td>
<td>.727</td>
<td>3.60</td>
<td>1.80</td>
</tr>
<tr>
<td></td>
<td>Sexy--Career $^a$</td>
<td>.636</td>
<td>2.83</td>
<td>1.64</td>
</tr>
<tr>
<td></td>
<td>Macho--Career $^b$</td>
<td>.685</td>
<td>3.02</td>
<td>1.47</td>
</tr>
</tbody>
</table>

Note: $^a$Scale range 0-9  $^b$Scale range 0-6
Higher scores reflect greater importance.
Overall, Youth and Sexy characteristics were important to the subjects. For the role, "For you, personally to be desirable," students rated youth-related characteristics as relatively important ($M = 5.8$), sex-related characteristics as more important ($M = 6.19$), and macho-related characteristics as only somewhat important ($M = 2.41$).

For the role, "Success as spouse," students rated youth-related characteristics as important ($M = 4.83$), sex-related characteristics as very important ($M = 6.02$), and macho-related characteristics as only somewhat important ($M = 2.24$).

For the role, "To be popular with (or liked by) potential romantic partners," students rated youth-related characteristics as important ($M = 6.33$), sex-related characteristics as even more important ($M = 6.98$), and macho-related characteristics as only somewhat important ($M = 2.19$).

For the role, "Success in job or career," students rated youth-related characteristics as important ($M = 3.60$), sex-related characteristics as not at all important ($M = 2.83$) and macho-related characteristics as important ($M = 3.02$).
3.6.2 Commercial Evaluation Questionnaire

Four additional dependent measures were gathered by the "Commercial Evaluation" questionnaire (Appendix E). These measures examined (1) number of products recalled, (2) liking for commercials, (3) interest in commercials, and (4) perceived effectiveness of commercials.

The number of products recalled (commercial retention) was measured by asking subjects to list any products they remembered from the commercials. A recall score was computed by counting the number of advertised products or brands correctly identified. A scale measuring the degree of product recall was created with the following categories: (0) none (1) few—7 or less (2) many—more than 8. This scale was created to get a relative sense of how many products were remembered and so those subjects with a better memory would not have an advantage. Subjects recalled quite a few commercials; the mean score on this scale was 1.56 (sd = .54).

Liking for the commercials was measured by asking the subjects, in general, how much they liked
the commercials. The scale measuring the degree of liking for the commercials was: (0) not at all (1) not much (2) somewhat (3) very much. Overall, subjects liked the commercials (M = 2.0; sd = .57).

Interest in the commercials was measured by asking the subjects, in general, how interesting they thought the commercials were. The scale measuring the degree of interest for the commercials was: (0) not at all interesting (1) not too interesting (2) quite interesting (3) very interesting. Overall, subjects rated the commercials as somewhat interesting (M = 1.68; sd = .65).

Perceived effectiveness of the commercials was measured by asking the subjects how effective they thought the commercials were in selling the products advertised. The scale for the degree of perceived effectiveness was: (0) very effective (1) somewhat effective (2) not too effective (3) not at all effective. The perceived effectiveness scale had a mean of 1.79 (sd = .55).
3.7 Experimental Procedure

Subjects were given the opportunity to sign up for the experiment between March 24, 1992 and April 13, 1992. The stimuli and questionnaire order were then randomly assigned to male, female, or mixed experimental groups. Data were collected on weekdays between April 13, 1992 and April 23, 1992 from approximately 10:30 a.m. to 6:30 p.m. The number of subjects in each group varied from 1 to 8. The data were collected in all male, all female, and both male and female experimental groups.

Upon entering the experimental room, subjects were given a chance to get comfortable. The experimenter read the names of the subjects who were supposed to be in the group, and noted each subject’s social security number (so that students would receive "points" for participating). The experimenter then read either the "exposure" or the "no-exposure" script to introduce subjects to the study (see Appendix F). Subjects in the exposure condition were told that they were participating in two different studies; the first was to evaluate 20 television commercials, the second
was a pretest for a study that would be completed this summer. The intention of telling subjects that they were participating in two different studies was to disguise the main objective of the study.

Subjects then either viewed one of the 11- to 12-minute commercial segments (on a 19" television) or, in the no-exposure condition, were told that all participants were not yet present or that the questionnaires were a little late.

Subjects were exposed to either: (a) 20 commercials that contained beauty and/or sexual appeals (b) wholesome beauty and/or youth appeals (c) macho or strong masculine appeals (d) neutral commercials or (e) no-exposure to any media stimulus.

Subjects in the no-exposure condition were told that they could study or read the Review or Computer World. They waited for the same amount of time that it took to view the television commercials (approximately 11 to 12 minutes).
In the exposure conditions, subjects were first given the "Commercial Evaluation" questionnaire (see Appendix E) in order to evaluate the commercials they just watched as well as disguise the purpose of the study.

Subjects were then asked to pretest items for another study. The second questionnaire, "Perceptions of Social Roles," was designed to measure effects of television commercials (see Appendix D). In the no-exposure condition, subjects were only given the second questionnaire.

After completing the study, the experimenter read a debriefing script (see Appendix G). Subjects in the exposure conditions were debriefed more extensively than subjects in the no-exposure conditions, and all subjects were asked not to talk about the study until all data were collected.

The results of the Commercial Evaluation questionnaire indicated that only nine subjects said that they had previous knowledge about the experiment. Furthermore, the previous knowledge that they had was extremely general; they heard that the experiment was "about commercials."
3.11 Debriefing

All participants in this study were debriefed. Participants exposed to either the beauty/sex, wholesome beauty/youth, or macho commercials were debriefed more extensively than the others. Debriefing took place immediately after the experiment. The experimenter read a script (see Appendix G) with the following information: (1) subjects were thanked for their participation, (2) subjects were informed that they participated in one study, not two, (3) subjects were told the purpose of the experiment ("no-exposure" conditions were told that they were in a "no-exposure" condition), (4) subjects were advised not to discuss the experiment until all the data were collected, and (5) some negative implications of sex-role images were discussed. The discussion of implications of negative sex-role images included examples of successful women that were not beautiful and showed a clip from the prime-time television program, "Seinfeld." The clip (30 seconds) showed a comedian addressing the issue of "appeals advertisers use to 'sell' products."
3.12 Analysis

As noted above, three summative indices (Sexy, Youth and Macho) were created to test the importance of beauty/sex, wholesome beauty/youth and macho-emphasized views in relation to the four real-life roles. A total of 12 indices were created; each had an acceptable level of reliability as measured by Cronbach’s Alpha. Twelve 2 (gender) by 5 (condition) analyses of variance (ANOVA) were conducted to examine differences between subjects in the five conditions (beauty/sex, wholesome beauty/youth, macho or neutral commercial content and no-exposure conditions) on these indices. In addition, four 2 (gender) by 4 (commercial condition) ANOVA’s were conducted to examine differences in likability, interest, perceived effectiveness, and degree of product recall. The significance of F was measured for both main effects (gender and condition) as well as two-way interactions (gender-condition) for each of the 16 dependent variables.

Post-hoc Duncan Multiple range tests were done in order to locate any non-hypothesized differences in social roles. In addition, post-hoc Duncan Multiple
range tests were used to determine any differences between exposure groups for degree of recall, received effectiveness, likability, and interest in commercials.
Chapter 4

RESULTS

The purpose of this experiment was to replicate and expand upon Tan (1979). A 5 x 2 (commercial type X gender) experimental design, was used to test the effects of beauty/sex, "wholesome" beauty/youth and macho commercials on evaluations of four real-life roles in male and female college students.

Sixteen hypotheses (16 dependent variables) were tested with 16 two-way ANOVAs. Hypotheses 1-4 examined the effects of exposure to beauty/sex commercials on subsequent ratings for the importance of the characteristics that made up the Sexy Index. Hypotheses 5-8 examined the effects of exposure to wholesome beauty/youth commercials on subsequent ratings for the importance of the characteristics that made up the Youth Index. Hypotheses 9-12 examined the effects of macho commercials on subsequent ratings for the importance of the characteristics that made up the
Macho Index. Hypotheses 13-16 examined the effects of exposure to the four types of commercials on the degree of product recall, perceived effectiveness, likability, and interest. Research questions 1-4 examined gender differences in the degree of product recall, perceived effectiveness, likability, and interest.

4.1 Hypotheses 1-4 -- The Sexy Index

The first four hypotheses examined the effects of commercial content and gender on ratings for the importance of sex-related characteristics (Sexy Index) for the subjects on the four real-life roles. Scores on the Sexy Indices ranged from 0 to 9 [(not at all important to somewhat important (M < 3.00), important (M < 6.00), or very important (M < 9.00)].

4.1.1 Hypothesis 1

Hypothesis 1 (table 4.1) proposed that there would be condition and gender differences in ratings of sex-related characteristics (Sexy Index) for the role "success in job or career."
Table 4.1

Success in Job or Career -- Sexy

Condition and Gender

<table>
<thead>
<tr>
<th>Main Effects</th>
<th>SS</th>
<th>DF</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition</td>
<td>14.09</td>
<td>4</td>
<td>3.52</td>
<td>1.34</td>
</tr>
<tr>
<td>Gender</td>
<td>14.80</td>
<td>1</td>
<td>14.80</td>
<td>5.62*</td>
</tr>
<tr>
<td>2-Way Interaction</td>
<td>4.160</td>
<td>4</td>
<td>1.04</td>
<td>.40</td>
</tr>
<tr>
<td>Gender Condition</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explained</td>
<td>33.5</td>
<td>9</td>
<td>3.72</td>
<td>1.41</td>
</tr>
<tr>
<td>Residual</td>
<td>637.5</td>
<td>242</td>
<td>2.63</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>671.0</td>
<td>251</td>
<td>2.67</td>
<td></td>
</tr>
</tbody>
</table>

*p < .05

Overall, for the role "success in job or career," subjects rated sex-related characteristics at the lower end of the measurement scale (somewhat important). Scores ranged from 2.80 to 3.32 out of a possible 9 points, with a mean score of 2.83 (sd = 1.64). The analysis revealed no support for H₁(a) (F = 1.34, df = 4, 242, NS). There was support for H₁(b) (F = 14.80, df = 1, 242, p < .05). Males rated sex-related
characteristics as more important ($M = 3.11$) than females ($M = 2.61$). There was no interaction effect between condition and gender.

### 4.1.2 Hypothesis 2

Hypothesis 2 (table 4.2) proposed that there would be condition and gender differences in ratings of sex-related characteristics (Sexy Index) for the role "success as spouse."
Table 4.2

ANOVA

Success as Spouse -- Sexy

Condition and Gender

<table>
<thead>
<tr>
<th>Main Effects</th>
<th>SS</th>
<th>DF</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition</td>
<td>7.08</td>
<td>4</td>
<td>1.77</td>
<td>.66</td>
</tr>
<tr>
<td>Gender</td>
<td>32.57</td>
<td>1</td>
<td>32.57</td>
<td>12.22**</td>
</tr>
<tr>
<td>2-way</td>
<td>7.67</td>
<td>4</td>
<td>1.92</td>
<td>.72</td>
</tr>
<tr>
<td>Interaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Condition</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Explained 47.15 9  5.24 1.97
Residual 639.75 240 2.67
Total 686.90 249 2.76

**p<.01

Overall, for the role "success as spouse" subjects rated sex-related characteristics at the middle of the measurement scale (important). Scores ranged from 5.0 to 6.16 out of a possible 9 points, with a mean score of 6.02 (sd = 1.66). The analysis revealed no support for H1(a) (F = .66, df = 4, 240, NS). There was support for H1(b) (F = 12.22, df = 1, 240, p < .01). While both males and females rated these sex-related characteristics as important, males rated them as more
important ($M = 6.42$) than females ($M = 5.70$). There was no interaction effect between condition and gender.

4.1.3 Hypothesis 3

Hypothesis 3 (table 4.3) proposed that there would be condition and gender differences in ratings of sex-related characteristics' (Sexy Index) for the role "popular with potential romantic partners."
Table 4.3

ANOVA
Popular with Potential Romantic Partners -- Sexy Condition and Gender

<table>
<thead>
<tr>
<th>Main Effects</th>
<th>SS</th>
<th>DF</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition</td>
<td>13.35</td>
<td>4</td>
<td>3.34</td>
<td>1.60</td>
</tr>
<tr>
<td>Gender</td>
<td>12.49</td>
<td>1</td>
<td>12.49</td>
<td>5.98*</td>
</tr>
<tr>
<td>2-Way</td>
<td>8.57</td>
<td>4</td>
<td>2.14</td>
<td>1.03</td>
</tr>
<tr>
<td>Interaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Condition</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explained</td>
<td>34.22</td>
<td>9</td>
<td>3.80</td>
<td>1.82</td>
</tr>
<tr>
<td>Residual</td>
<td>505.64</td>
<td>242</td>
<td>2.09</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>539.86</td>
<td>251</td>
<td>2.15</td>
<td></td>
</tr>
</tbody>
</table>

*p < .05

Overall, for the role "to be popular with potential romantic partners," subjects rated sex-related characteristics as very important. Scores ranged from 6.63 to 7.25 out of a possible 9 points, with a mean score of 6.98 (sd = 1.47). The analysis revealed no support for H3(a) (F = 1.60, df = 4, 242, NS). There was support for H3(b) (F = 5.98, df = 1, 242, p < .05). While both males and females rated these
characteristics very important, males rated them as more important ($M = 7.22$) than females ($M = 6.78$).

There was no interaction effect between condition and gender.

4.1.4 Hypothesis 4

Hypothesis 4 (table 4.4) proposed that there would be condition and gender differences in ratings of sex-related characteristics (Sexy Index) for the role "personally desirable characteristics."
Overall, for the role "personally to be desirable," subjects rated sex-related characteristics as very important. Scores ranged from to 6.02 to 6.34 out of a possible 9 points, with a mean of 6.19 (sd = 1.63). The analysis revealed no support for $H_4(a)$ ($F = .355$, df = 4, 242, NS). There was support for $H_4(b)$ ($F = 13.03$, df = 1, 242, $p < .01$). Males rated these
characteristics as more important \( (M = 6.59) \) than females \( (M = 5.86) \). There was no interaction effect between condition and gender.

Hypotheses 1-4 tested the effects of beauty/youth commercial content on the importance of sex-related characteristics (Sexy Index) for the four real-life roles. The results revealed significant main effects for gender, but not condition, for the four real-life roles.

4.2 Hypotheses 5-8 -- The Youth Index

Hypotheses 5-8 examined the effects of commercial content and gender on ratings for the importance of youth-related characteristics (Youth Index) for the subjects on the four real-life roles. Scores on the Youth Indices ranged from 0 to 9 \{ (not at all important to somewhat important \( (M < 3.00) \), important \( (M < 6.00) \), or very important \( (M < 9.00) \) \}. 
4.2.1 Hypothesis 5

Hypothesis 5 (table 4.5) proposed that there would be condition and gender differences in ratings of youth-related characteristics (Youth Index) for the role "success in job or career."

<table>
<thead>
<tr>
<th>Main Effects</th>
<th>SS</th>
<th>DF</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition</td>
<td>29.89</td>
<td>4</td>
<td>7.47</td>
<td>2.42*</td>
</tr>
<tr>
<td>Gender</td>
<td>4.75</td>
<td>1</td>
<td>4.75</td>
<td>1.54</td>
</tr>
<tr>
<td>2-Way Interaction</td>
<td>33.41</td>
<td>4</td>
<td>8.35</td>
<td>2.70*</td>
</tr>
<tr>
<td>Explained</td>
<td>63.40</td>
<td>9</td>
<td>7.60</td>
<td>2.46</td>
</tr>
<tr>
<td>Residual</td>
<td>747.92</td>
<td>242</td>
<td>3.09</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>816.32</td>
<td>251</td>
<td>3.25</td>
<td></td>
</tr>
</tbody>
</table>

* p < .05

Overall, students rated youth-related characteristics as important for the role, "success in career or job."
The scores on the index ranged from 3.15 to 4.18 out of a possible 9 points, with a mean score of 3.6 ($sd = 1.80$). Although there was a significant effect for condition ($F = 2.42$, $df = 4, 242$, $p < .05$), $H_{2}(a)$ was not supported. The post-hoc Duncan Multiple range test revealed one non-hypothesized finding. Subjects in the macho commercial condition rated the importance of youth-related characteristics significantly higher ($M = 4.18$) than those in the beauty/sex ($M = 3.59$), youth ($M = 3.37$), neutral ($M = 3.62$) or no-exposure ($M = 3.15$) conditions (see table 4.6).

Table 4.6

<table>
<thead>
<tr>
<th>Commercial Condition</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>No-exposure</td>
<td>3.15$_b$</td>
</tr>
<tr>
<td>Wholesome Beauty/Youth</td>
<td>3.37$_b$</td>
</tr>
<tr>
<td>Beauty/Sex</td>
<td>3.59$_b$</td>
</tr>
<tr>
<td>Neutral Content</td>
<td>3.62$_b$</td>
</tr>
<tr>
<td>Macho Content</td>
<td>4.18$_b$</td>
</tr>
</tbody>
</table>

Note: Means not sharing common subscripts, differ significantly, $p < .05$. 

Success in Job or Career -- Youth

Means by Commercial Condition
There was no support for H₃(b) (F = 1.54, df = 1, 242, NS). There also was a statistically significant two-way interaction between condition and gender (F = 2.70, df = 4, 242, p < .05) (see table 4.7).

Table 4.7

<table>
<thead>
<tr>
<th>Gender</th>
<th>Condition</th>
<th>Sex</th>
<th>Youth</th>
<th>Macho</th>
<th>Neutral</th>
<th>N.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td></td>
<td>4.17</td>
<td>3.19</td>
<td>4.44</td>
<td>3.19</td>
<td>3.76</td>
</tr>
<tr>
<td>Females</td>
<td></td>
<td>3.04</td>
<td>3.52</td>
<td>3.97</td>
<td>3.96</td>
<td>2.71</td>
</tr>
</tbody>
</table>

Note: Higher scores reflect more important ratings.

Males in the Beauty/Sex and Macho conditions had higher scores than females on ratings of youth-related characteristics for the role "success in job or career." Females in the Youth condition, on the other hand, had higher scores than males on the ratings of
youth-related characteristics for the role "success in job or career."

4.2.2 Hypothesis 6

Hypothesis 6 (table 4.8) proposed that there would be condition and gender differences in ratings of youth-related characteristics (Youth Index) for the role "success as spouse."

Table 4.8

<table>
<thead>
<tr>
<th>ANOVA</th>
<th>Success as Spouse -- Youth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition and Gender</td>
<td>Condition</td>
</tr>
<tr>
<td>Gender</td>
<td>47.41</td>
</tr>
<tr>
<td>2-way Interaction</td>
<td>Condition</td>
</tr>
<tr>
<td>Explained</td>
<td>93.60</td>
</tr>
<tr>
<td>Residual</td>
<td>761.34</td>
</tr>
<tr>
<td>Total</td>
<td>854.94</td>
</tr>
</tbody>
</table>

**p<.01
Overall, in regard to "success as spouse," subjects rated youth-related characteristics as important. The scores on the index ranged from 4.26 to 5.16 out of a possible 9 points, with a mean score of 4.83 (sd = 1.85). The analysis revealed no support for $H_6(a)$ ($F = 1.97 \text{ df} = 4, 240, \text{ NS}$). While subjects in the macho ($M = 5.16$) and youth ($M = 5.02$) commercial conditions had higher scores on the Youth Index than the other three conditions [$M$ (no-exposure) = 4.90; $M$ (beauty/sex) = 4.73; $M$ (neutral) = 4.26], the difference was not statistically significant. There was support for $H_6(b)$ ($F = 14.95 \text{ df} = 1, 240, p < .01$). Overall, males rated youth-related characteristics as more important ($M = 5.31$) than females ($M = 4.44$). There was no interaction effect between condition and gender.

4.2.3 Hypothesis 7

Hypothesis 7 (table 4.9) proposed that there would be condition and gender differences in ratings of youth-related characteristics (Youth Index) for the role "popular with potential romantic partners."
Table 4.9

ANOVA

Popular with Potential Romantic Partners -- Youth Condition and Gender

<table>
<thead>
<tr>
<th>Main Effects</th>
<th>SS</th>
<th>DF</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition</td>
<td>9.91</td>
<td>4</td>
<td>2.48</td>
<td>1.03</td>
</tr>
<tr>
<td>Gender</td>
<td>9.84</td>
<td>1</td>
<td>9.84</td>
<td>4.07*</td>
</tr>
<tr>
<td>2-way Interaction</td>
<td>12.99</td>
<td>4</td>
<td>3.25</td>
<td>1.34</td>
</tr>
<tr>
<td>Explained</td>
<td>32.75</td>
<td>9</td>
<td>3.64</td>
<td>1.51</td>
</tr>
<tr>
<td>Residual</td>
<td>584.91</td>
<td>242</td>
<td>2.42</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>617.66</td>
<td>251</td>
<td>2.46</td>
<td></td>
</tr>
</tbody>
</table>

*p<.05

Overall, subjects rated youth-related characteristics very important for the role, "popular with potential romantic partners." Scores on the Youth Index ranged from 5.98 to 6.50 out of a possible 9 points, with a mean score of 6.33 (sd = 1.57). The analysis revealed no support for H1(a) (F = 1.03, df = 4, 242, NS). Subjects in the macho commercial condition had higher (M = 6.50) scores on the Youth Index; however, this
difference was not statistically significant [M (neutral) = 6.47; M (no-exposure) = 6.41; M (beauty/sex) = 6.36; M (beauty/youth) = 5.98]. There was support for H7(b) (F = 4.07 df = 1, 242. p < .05). Males rated the youth-related characteristics as more important (M = 6.55) than females (M = 6.15). There was no interaction effect between condition and gender.

4.2.4 Hypotheses 8

Hypothesis 8 (table 4.10) proposed that there would be condition and gender differences in ratings of youth-related characteristics (Youth Index) for the role "personally desirable characteristics."
Table 4.10

ANOVA

Personally Desirable Characteristics -- Youth
Condition and Gender

<table>
<thead>
<tr>
<th>Main Effects</th>
<th>SS</th>
<th>DF</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition</td>
<td>8.43</td>
<td>4</td>
<td>2.11</td>
<td>.69</td>
</tr>
<tr>
<td>Gender</td>
<td>24.92</td>
<td>1</td>
<td>24.92</td>
<td>8.15**</td>
</tr>
<tr>
<td>2-Way Interaction</td>
<td>21.50</td>
<td>4</td>
<td>5.39</td>
<td>1.76</td>
</tr>
<tr>
<td>Gender Condition</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explained</td>
<td>54.48</td>
<td>9</td>
<td>6.05</td>
<td>1.98</td>
</tr>
<tr>
<td>Residual</td>
<td>737.17</td>
<td>241</td>
<td>3.06</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>791.65</td>
<td>250</td>
<td>3.17</td>
<td></td>
</tr>
</tbody>
</table>

**p<.01

Overall, subjects rated youth-related characteristics as important for the role, "for you personally, to be desirable." The scores on the Youth Index ranged from 5.63 to 6.18 out of a possible 9 points, with a mean score of 5.88 (sd = 1.78). The analysis revealed no support for Hₐ(a) (F = .69, df = 4, 241, NS). Subjects in the macho commercial condition had higher scores (M = 6.18) on the Youth Index; however, this difference
was not statistically significant \( M \) (no-exposure) = 5.89; \( M \) (youth) = 5.86; \( M \) (beauty/sex) = 5.82; \( M \) (neutral) = 5.63. There was support for \( H_6(b) \) \( (F = 8.15, df = 1, 241. p < .01) \). \( H_6(b) \) revealed that males rated youth-related characteristics very important \( (M = 6.23) \), while females rated youth-related characteristics as important \( (M = 5.60) \). There was no interaction effect between condition and gender.

Hypotheses 5-8 examined the effects of commercial content and gender on ratings for the importance of youth-related characteristics (Youth Index) for the subjects on the four real-life roles. The results revealed that three of the hypotheses had significant main effects for gender. Males rated the importance of youth-related characteristics higher than females for three roles. There was one statistically significant, but non-hypothesized, condition effect. Subjects who saw the macho commercials rated youth-related characteristics higher for the role, "success in job or career." Data for the other three roles, while not statistically significant, showed a similar trend. Subjects in the macho condition rated the
youth-related characteristics as more important than subjects in the other four experimental groups. Furthermore, there was one interaction effect between gender and condition for the role, "success in job or career."

4.3 Hypotheses 9-12 -- The Macho Index

Hypotheses 9-12 examined the effects commercial content and gender on ratings for the importance of macho-related characteristics (Macho Index) for the subjects on the four real-life roles. Scores on the Macho Index ranged from 0-6 (not at all to somewhat important (M < 2.00), important (M < 4.00), or very important (M < 6.00).

4.3.1 Hypothesis 9

Hypothesis 9 (table 4.11) proposed that there would be condition and gender differences in ratings of macho-related characteristics (Macho Index) for the role "success in job or career."
Table 4.11

ANOVA

Success in Job or Career -- Macho Condition and Gender

<table>
<thead>
<tr>
<th>Main Effects</th>
<th>SS</th>
<th>DF</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition</td>
<td>14.09</td>
<td>4</td>
<td>3.52</td>
<td>1.34</td>
</tr>
<tr>
<td>Gender</td>
<td>41.15</td>
<td>1</td>
<td>41.15</td>
<td>20.82**</td>
</tr>
<tr>
<td>2-Way Interaction</td>
<td>4.16</td>
<td>4</td>
<td>1.04</td>
<td>.40</td>
</tr>
<tr>
<td>Explained</td>
<td>33.50</td>
<td>9</td>
<td>3.72</td>
<td>1.41</td>
</tr>
<tr>
<td>Residual</td>
<td>637.50</td>
<td>242</td>
<td>2.63</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>671.00</td>
<td>251</td>
<td>2.67</td>
<td></td>
</tr>
</tbody>
</table>

**p < .01

Overall, subjects rated macho-related characteristics as important for the role, "success in job or career." The scores on the Macho Index ranged from 2.80 to 3.32 out of a possible 6 points, with a mean score of 3.02 (sd = 1.46). The analysis revealed no support for $H_a(a)$ ($F = 1.34$, $df = 4$, 242, NS). There was support for $H_a(b)$ ($F = 20.82$, $df = 1$, 242, $p < .01$). Males
rated macho-related characteristics as more important ($M = 3.47$) than females ($M = 2.65$). There was no interaction effect between condition and gender.

### 4.3.2 Hypothesis 10

Hypothesis 10 (table 4.12) proposed that there would be condition and gender differences in ratings of macho-related characteristics (Macho Index) for the role "success as spouse."

<table>
<thead>
<tr>
<th>Table 4.12</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ANOVA</strong></td>
</tr>
<tr>
<td>Success as Spouse -- Macho</td>
</tr>
<tr>
<td>Condition and Gender</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Main Effects</th>
<th>SS</th>
<th>DF</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition</td>
<td>5.87</td>
<td>4</td>
<td>1.45</td>
<td>1.04</td>
</tr>
<tr>
<td>Gender</td>
<td>9.53</td>
<td>1</td>
<td>9.53</td>
<td>6.67**</td>
</tr>
<tr>
<td>2-Way Interaction</td>
<td>1.33</td>
<td>4</td>
<td>.33</td>
<td>.24</td>
</tr>
<tr>
<td>Explained</td>
<td>16.97</td>
<td>9</td>
<td>1.87</td>
<td>1.34</td>
</tr>
<tr>
<td>Residual</td>
<td>338.11</td>
<td>240</td>
<td>1.41</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>355.08</td>
<td>249</td>
<td>1.43</td>
<td></td>
</tr>
</tbody>
</table>

**p < .01**
Overall, subjects rated macho-related characteristics as somewhat important for the role, "success as spouse." Scores on the Macho Index ranged from 1.98 to 2.42 out of a possible 6 points, with a mean score of 2.24 (sd = 1.19). The analysis revealed no support for \( H_{10}(a) \) (\( F = 1.04, \text{ df} = 4, 240, \text{ NS} \)). There was support for \( H_{10}(b) \) (\( F = 6.67, \text{ df} = 1, 240, p < .01 \)). Males rated macho-related characteristics as more important (\( M = 2.46 \)) than females (\( M = 2.06 \)). There was no interaction effect between condition and gender.

4.3.3 Hypothesis 11

Hypothesis 11 (table 4.13) proposed that there would be condition and gender differences in ratings of macho-related characteristics (Macho Index) for the role "popular with potential romantic partners."
Table 4.13

ANOVA

Popular with Potential Romantic Partners -- Macho Condition and Gender

<table>
<thead>
<tr>
<th>Main Effects</th>
<th>SS</th>
<th>DF</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition</td>
<td>3.45</td>
<td>4</td>
<td>.86</td>
<td>.63</td>
</tr>
<tr>
<td>Gender</td>
<td>28.99</td>
<td>1</td>
<td>28.99</td>
<td>21.11**</td>
</tr>
<tr>
<td>2-Way Interaction</td>
<td>1.94</td>
<td>4</td>
<td>.49</td>
<td>.35</td>
</tr>
</tbody>
</table>

Gender Condition

Explained        | 35.09| 9  | 3.90        | 2.84 |
Residual         | 332.38| 242 | 1.37        |
Total            | 367.47| 251 | 1.46        |

**p<.01

Overall, subjects rated macho-related characteristics as somewhat important for the role, "to be popular with potential romantic partners." Scores on the Macho Index ranged from 2.02 to 2.41, out of a possible 6 points, with a mean score of 2.19 (sd = 1.21). The analysis revealed no support for \( H_I(a) \) (\( F = .63, \ df = 4, 242, \ NS \)). There was support for \( H_I(b) \) (\( F = 21.11, \ df = 1, 242, \ p < .01 \)). Males rated macho-related characteristics as more important (\( M = 2.58 \)) than
females ($M = 1.88$). There was no interaction effect between condition and gender.

### 4.3.4 Hypothesis 12

Hypothesis 12 (table 4.14) proposed that there would be condition and gender differences in ratings of macho-related characteristics (Macho Index) for the role "personally desirable characteristics."

**Table 4.14**

<table>
<thead>
<tr>
<th>Main Effects</th>
<th>SS</th>
<th>DF</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition</td>
<td>11.00</td>
<td>4</td>
<td>2.75</td>
<td>1.84</td>
</tr>
<tr>
<td>Gender</td>
<td>39.23</td>
<td>1</td>
<td>39.23</td>
<td>26.26**</td>
</tr>
<tr>
<td>2-Way</td>
<td>1.85</td>
<td>4</td>
<td>.46</td>
<td>.31</td>
</tr>
<tr>
<td>Interaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explained</td>
<td>53.55</td>
<td>9</td>
<td>5.95</td>
<td>3.98</td>
</tr>
<tr>
<td>Residual</td>
<td>361.53</td>
<td>242</td>
<td>1.49</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>415.08</td>
<td>251</td>
<td>1.65</td>
<td></td>
</tr>
</tbody>
</table>

**p < .01**
Overall, subjects rated macho-related characteristics as important for the role, "for you personally, to be desirable." Scores on the Macho Index ranged from 2.17 to 2.82 out of a possible 6 points, with a mean score of 2.41 (sd = 1.29). The analysis revealed no support for H9a (F = 1.84, df = 4, 242, NS). There was support for H9b (F = 26.26, df = 1, 242, p < .01). Though both males and females rated macho-related characteristics as important, males rated these characteristics as more important (M = 2.86) than females (M = 2.05). There was no interaction effect between condition and gender.

Hypotheses 9-12 tested the effects of macho commercial content on the importance of macho-related characteristics (Macho Index) for the subjects on the four real-life roles. The results revealed significant main effects for gender for all four roles; there were no condition effects or interaction effects.
4.4 Hypotheses 13-16 and Research Questions 1-4

Hypotheses 13-16 tested condition differences in the degree of product recall, perceived effectiveness, likability, and interest in commercial content. The research questions (1-4) looked for gender differences in the degree of product recall, perceived effectiveness, likability, and interest in commercials.

4.4.1 Hypothesis 13 and Research Question 1

Hypothesis 13 (table 4.15) predicted that there would be differences in the degree of product recall based on condition.

H_{13}: Subjects who see beauty/sex, wholesome beauty/youth or macho commercials will differ in their degree of recall than those who see neutral commercials.

RQ_1 (table 4.15) asked if there would be gender differences for the degree of product recall.
Table 4.15

ANOVA

Products Remembered
Condition and Gender

<table>
<thead>
<tr>
<th>Main Effects</th>
<th>SS</th>
<th>DF</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition</td>
<td>4.00</td>
<td>3</td>
<td>1.33</td>
<td>5.25**</td>
</tr>
<tr>
<td>Gender</td>
<td>3.24</td>
<td>1</td>
<td>3.24</td>
<td>12.75**</td>
</tr>
<tr>
<td>2-Way Interaction</td>
<td>1.24</td>
<td>3</td>
<td>.41</td>
<td>1.63</td>
</tr>
<tr>
<td>Explained</td>
<td>8.57</td>
<td>7</td>
<td>1.23</td>
<td>4.83</td>
</tr>
<tr>
<td>Residual</td>
<td>51.54</td>
<td>203</td>
<td>.25</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>60.12</td>
<td>210</td>
<td>.29</td>
<td></td>
</tr>
</tbody>
</table>

**p<.01

The degree of product recall (number of products remembered) was operationalized in three groups: None, some and many. Subjects in the no-exposure condition did not take part in this portion of the experiment because they did not see any commercials. Overall, the scores ranged from 0-2, with a mean 1.56 (sd = .54). The analysis revealed support for H₃(a) (F = 5.25, df = 3, 203; p < .01). In order to determine which
commercial condition had the highest degree of product recall, the post-hoc Duncan Multiple range test was conducted. It revealed that subjects who were exposed to the macho commercial content (M = 1.77) remembered more products than subjects in the beauty/sex (M = 1.43), youth (M = 1.44) or neutral (M = 1.57) conditions (see table 4.16).

Table 4.16

Products Remembered --
Means by Commercial Condition

<table>
<thead>
<tr>
<th>Commercial Condition</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>No-exposure</td>
<td>----</td>
</tr>
<tr>
<td>Beauty/Sex</td>
<td>1.43b</td>
</tr>
<tr>
<td>Wholesome Beauty/Youth</td>
<td>1.44b</td>
</tr>
<tr>
<td>Neutral Content</td>
<td>1.57b</td>
</tr>
<tr>
<td>Macho Content</td>
<td>1.77b</td>
</tr>
</tbody>
</table>

Note: ----No-exposure group did not see the commercials. Groups not sharing common subscripts differ significantly, p < .05.
There was also support for RQ2 (F = 12.75, df = 1, 203, p < .01). The analysis revealed that females remembered more advertised product names (M = 1.67) than males (M = 1.42). There was no interaction effect.

4.4.2 Hypothesis 14 and Research Question 2

Hypothesis 14 (table 4.17) predicted that there would be differences in the perceived effectiveness of the commercials based on condition.

H14: There will be a main effect for condition; subjects who see the three types of commercials (beauty/sex, wholesome beauty/youth, macho) will differ in their perceptions of commercial effectiveness from those who see the neutral commercials.

RQ2 (table 4.17) asked if there would be gender differences for the perceptions of commercial effectiveness.
Overall, scores for the perceived effectiveness of the commercials ranged from 0-3. The mean score for perceived effectiveness was 1.79 (sd = .55). The analysis revealed no support for $H_{n}(a)$ ($F = .58$ df = 3, 203, NS). While subjects in the beauty/sex ($M = 1.82$), youth ($M = 1.81$) and macho ($M = 1.82$) conditions perceived the commercials as more effective than subjects in the neutral condition ($M = 1.0$), this difference was not statistically significant. There
was support for RQ₂ \( (F = 9.45, \, df = 1, \, 203, \, p < .01) \). RQ₂ revealed that females perceived the commercials as more effective \( (M = 1.90) \) than males \( (M = 1.67) \). There was no interaction effect.

4.4.3 Hypothesis 15 and Research Question 3

Hypothesis 15 (table 4.18) predicted that there would be differences in the degree that subjects liked the commercials for condition.

\[ H_{15}: \text{There will be a main effect for condition; subjects who see the three types of commercials (beauty/sex, wholesome beauty/youth, macho) will differ in the amount that they like the commercials from those who see the neutral commercials.} \]

RQ₃ (table 4.18) asked if there would be gender differences for the amount that commercials were liked.
Overall, liking for the commercials was scored on a scale from 0-3. The overall mean score was 2.0 (sd = .57). The analysis revealed support for $H_{13}(a)$ ($F = 5.75$, df = 3, 203, $p < .01$). In order to determine which commercial condition was liked the most, the post-hoc Duncan Multiple range test was used. It revealed that subjects who were exposed to the beauty/sex ($M = 2.18$) and macho commercial content ($M = 2.11$) liked the commercials more than subjects in the

Table 4.18

<table>
<thead>
<tr>
<th>Main Effects</th>
<th>SS</th>
<th>DF</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition</td>
<td>4.94</td>
<td>3</td>
<td>1.65</td>
<td>5.75**</td>
</tr>
<tr>
<td>Gender</td>
<td>.31</td>
<td>1</td>
<td>.31</td>
<td>1.07</td>
</tr>
<tr>
<td>2-Way Interaction</td>
<td>3.71</td>
<td>3</td>
<td>1.24</td>
<td>4.32**</td>
</tr>
<tr>
<td>Gender Condition</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explained</td>
<td>8.89</td>
<td>7</td>
<td>1.27</td>
<td>4.44</td>
</tr>
<tr>
<td>Residual</td>
<td>58.10</td>
<td>203</td>
<td>.29</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>67.00</td>
<td>210</td>
<td>.32</td>
<td></td>
</tr>
</tbody>
</table>

**$p<.01$
neutral ($M = 1.89$) or youth ($M = 1.81$) conditions (see table 4.19).

Table 4.19

<table>
<thead>
<tr>
<th>Commercial Condition</th>
<th>$M$</th>
</tr>
</thead>
<tbody>
<tr>
<td>No-exposure</td>
<td>----</td>
</tr>
<tr>
<td>Beauty/Sex</td>
<td>2.18</td>
</tr>
<tr>
<td>Macho Content</td>
<td>2.11</td>
</tr>
<tr>
<td>Neutral Content</td>
<td>1.89</td>
</tr>
<tr>
<td>Beauty/Youth</td>
<td>1.81</td>
</tr>
</tbody>
</table>

Note: ----No-exposure group did not see the commercials. Means, differ significantly.

Regarding RQ₃, there was no support for gender differences ($F = 1.07$, $df = 1$, 203, NS); however, there was support ($F = 4.32$, $df = 3$, 203, $p < .01$) reflecting an interaction between gender and condition (table 4.20) for likability of the commercial content. In general, women liked all of the commercials better,
except for the beauty/sex ones--men liked the beauty/sex commercials better.

Table 4.20

<table>
<thead>
<tr>
<th>Gender</th>
<th>Condition</th>
<th>Sex</th>
<th>Youth</th>
<th>Macho</th>
<th>Neutral</th>
<th>N.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td></td>
<td>2.38</td>
<td>1.62</td>
<td>2.04</td>
<td>1.81</td>
<td>----</td>
</tr>
<tr>
<td>Females</td>
<td></td>
<td>2.00</td>
<td>1.97</td>
<td>2.16</td>
<td>1.96</td>
<td>----</td>
</tr>
</tbody>
</table>

Note: Higher scores reflect higher likability. ---- not applicable

4.4.4 Hypothesis 16 and Research Question 4

Hypothesis 16 (table 4.21) predicted that there would be differences in how much subjects were interested in the commercials by condition.
$H_{16}$: There will be a main effect for condition; subjects who see the three types of commercials (beauty/sex, wholesome beauty/youth, macho) will differ in the amount that they are interested in the commercials from those who see the neutral commercials.

RQ$_4$ (table 4.21) asked if there would be gender differences for the amount that subjects were interested in the commercials.
Overall, interest in the commercials was scored on a scale that ranged from 0-3. The mean score for interest in commercials was 1.68 (sd = .54). The analysis revealed support for $H_{10}(a)$ ($F = 7.30$, df = 3, 203, $p < .01$). In order to determine which condition found the commercials most interesting, the post-hoc Duncan Multiple range test was used. It revealed that subjects who were exposed to the macho ($M = 1.89$) and beauty/sex ($M = 1.86$) commercials were significantly
more interested in the commercials than subjects in neutral (M = 1.57) and the youth (M = 1.42) conditions (see table 4.22).

Table 4.22

<table>
<thead>
<tr>
<th>Commercial Condition</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>No-exposure</td>
<td>----</td>
</tr>
<tr>
<td>Wholesome Beauty/Youth</td>
<td>1.42a</td>
</tr>
<tr>
<td>Neutral Content</td>
<td>1.57b</td>
</tr>
<tr>
<td>Beauty/Sex</td>
<td>1.86a</td>
</tr>
<tr>
<td>Macho Content</td>
<td>1.89a</td>
</tr>
</tbody>
</table>

Note: ---- No-Exposure group did not see the commercials. Means differ significantly, p < .01.

There was no support for RQ4 (F = .05, df = 1, 203, NS). There was no interaction between gender and condition for interest in commercial content.
4.5 Summary of Results

Overall, this research has revealed some significant findings. Hypotheses 1-12, which dealt with condition and gender differences for the four subjects' perceptions of their own real-life roles, revealed only one main effect for condition, but consistent main effects for gender. There were significant findings for condition in Hypotheses 13-16. The next chapter addresses an overall analysis and the implications of the results obtained in this study.
Chapter 5

DISCUSSION

This chapter discusses the results of this study. The findings will be addressed as well as limitations of the study and directions for future research.

5.1 The Purpose

This thesis replicated and expanded the study, "TV Beauty Ads and Role Expectations of Adolescent Female Viewers," by Alexis S. Tan (1979). Grounded in cultivation theory, Tan's (1979) study manipulated exposure to TV "beauty" commercials (commercials using sex appeal, beauty, and/or youth as selling points) to ascertain whether they affected viewers' (adolescent females) perceptions of "commercial-relevant aspects of social reality (i.e., the perceived importance of beauty commercial themes in social and other
relations)" (p. 284). This replication expanded Tan’s (1979) study by manipulating exposure to "beauty" and macho commercials in five conditions to ascertain whether these commercials affected both male and female college students' perceptions of social roles.

The purpose of this study was to determine, among college students, if beauty and macho ads cultivated perceptions reflecting the images of social reality portrayed in the three types of commercials. More specifically, this study explored the effects of beauty/sex, wholesome beauty/youth, and macho commercial themes on male and female perceptions of four real-life roles. This study was grounded in cultivation theory, and aimed to determine the effects of the three commercial themes on viewers' perceptions.

Cultivation theory holds that the more time spent watching television, the more likely conceptions of social reality will reflect the most common and repetitive messages and lessons on television. Cultivation is a continuous, dynamic, ongoing process of interaction among messages and contexts that influence television viewing audiences. The main goal of cultivation analysis is to study and understand the
long-term shifts and possible transformations that may result from long-term viewing.

Studies have shown that sex-stereotyping (Lovdal, 1989; Signorielli, 1989), beauty/youth themes (Downs & Harrison, 1983; Ferrante, Haynes & Kingsley, 1988) and macho themes (Meyers, 1980) occur on television. Effect studies have found that exposure to sex-stereotyping (Preston, 1990; Geis, Brown, Walstedt, & Porter 1984), beauty/youth (Kenrick & Gutierres, 1980) and sex themes (Richmond & Hartman, 1982) are related to a more television-emphasized view of reality.

This thesis isolated common and continually televised beauty/sex, wholesome beauty/youth, and macho commercial themes and tested their effects on college males and females in order to ascertain if exposure to these commercials would lead to views reflecting these themes.

5.2 What Was Tested? And What Was Found?

In general, the hypotheses tested the effects of three types of commercials on subjects' perceptions
of four real-life roles. Hypotheses 1-12 analyzed male and female perceptions of "Sexy," "Beauty/youth," and "Macho" characteristics on the following roles: (1) success in job or career, (2) success as spouse, (3) to be popular with, or liked by potential romantic partners and (4) personally desirable characteristics for you. Hypotheses 13-16 analyzed viewers perceptions of the effectiveness, interest, likability, and degree of recall of the commercials by condition. Research questions 1-4 examined gender differences for perceptions of effectiveness, interest, likability, and degree of product recall.

While there were no statistically significant differences for condition in relation to real-life roles (Hypotheses 1-12), gender differences were supported (Hypotheses 1-12). There was support for differences in condition for Hypotheses 13 (recall), 15 (like), and 16 (interest). Furthermore, while subjects in the beauty/sex, beauty/youth, and macho conditions had different perceptions in regard to likability, interest, and degree of recall, support for research questions regarding gender differences was only found for perceived effectiveness and the degree of recall.
Specifically, the hypotheses found strong gender differences for male and female perceptions of real-life roles. There were also gender differences in the degree of product recall of commercial content and the perceived effectiveness of commercials. One non-hypothesized finding revealed that males exposed to macho commercial content had a more wholesome beauty/youth-emphasized view of all four roles (only significant for the role, "success in job or career"). This finding may have been due to the macho commercial content and the characteristics used to describe the Youth Index. This concern is addressed more specifically in possible limitations of the study.

5.3 A Replication or Expansion--That is the Question?

In the original study Tan (1979) found evidence of cultivation. He found that subjects who saw the "beauty" ads were more likely than subjects who saw the neutral ads to give higher importance ratings to beauty characteristics for the roles "to be popular with men" and "for you, personally." For the roles, "success in job or career" and "success as wife," ratings did not
differ significantly between the "beauty" group and the neutral group. The "beauty" group also recalled significantly more of the content of the advertisements than the control group, but perceived the commercials as less effective. Thus, Tan (1979) found that for highly personal roles, exposure to TV beauty ads led adolescent girls to place more emphasis on beauty characteristics.

It is important to note that although there are many justifications for expanding on Tan's study, the lack of significant results may be due to this expansion. The only consistent factor was the inclusion of beauty/sex and wholesome beauty/youth commercial content; however, this factor was slightly altered as well. Tan (1979) combined beauty/sex and wholesome beauty/youth commercial content, while this thesis separated them into two conditions.

There are several reasons that may have resulted in Tan's (1979) significant findings. First, Tan (1979) may have committed a Type I error. The second reason regards Tan's (1979) sample of adolescent females. Adolescent females probably are less knowledgeable about images in the media and their
dangers. In 1977 (when the study was conducted) images in the media and especially their potential danger may not have been as publicized as they are today. Furthermore, 15 years ago the general population did not question the degradation of women in the media as they do today. Thus, his sample could have been unaware of the presence of negative images in the media, whereas the sample of college students in the present study was aware.

5.4 Any Problems??

There were several limitations in the methodology and procedure of this experiment.

5.4.1 The Macho Commercial Content and the Youth Index

As previously stated, there was a significant difference for males and females exposed to the macho commercial content for the role, "success in job or career." Males rated characteristics in the Youth index as more important for all four roles, but only significantly for "success in job or career." It is
possible that this significant difference was due to the macho commercial content and the characteristics used to describe the Youth Index.

The macho commercials emphasized young, athletic, energetic, and healthy males. These images are quite different from the "rugged" and "tough" characteristics the Macho Index was measuring. Thus, macho commercial themes were consistent with the characteristics in the Youth index (youthful, healthy well-toned body, attractive face), rather than the characteristics in the Macho Index (rugged and tough). Men were shown as rugged and tough, but they were predominantly youthful, athletic, and well-toned.

5.4.2 The Wholesome Beauty/Youth Commercial Content

The wholesome beauty/youth commercial content communicated a "youthful" message, but the audience was not tuned-in to it. While the emphasis was on "wrinkle-free," "youthful," women, it is highly probable that a college aged audience is too young and wrinkle-free to worry about such problems. It is interesting to note that subjects rated the wholesome
beauty/youth commercial content as the least interesting and least liked of all four exposure groups.

5.4.3 Were College Students an Appropriate Sample?

One vital limitation in this research was the sample. College students may not have been an appropriate sample for several reasons. College students are exposed to much more information about the media than adolescent females (used in Tan's study). For example, the majority of the sample used in this study were taking a large communication class (Mass Media and Society), which reviews sex-oriented, beauty-oriented, and stereotyped themes on television. In addition, college students may have been exposed to similar information in other classes such as Sociology, Psychology, and Women's Studies. Moreover, information about beauty and sex themes and their effects may have been addressed in Residence Life programs and the popular press, such as The Review (University of Delaware student newspaper).
Therefore, the null findings may be due to strong social pressure from college classes, residence halls, or the popular press to de-emphasize the importance of beauty and sex in real-life roles. In summary, the use of the college population as a whole was a major limitation in this study because college students are overly sensitized (especially the sample that this thesis used) and too knowledgeable about images in the media.

5.4.4 Was This Really Cultivation?

The 11- to 12- minute brief exposure to specific themes may not have been enough to test cultivation effects in the audience. This limitation has further implications as well. Research has shown that beauty/youth, beauty/sex, and macho themes occur quite often on television; therefore, 11-12 minutes of neutral commercials or "no-exposure" would not be sufficient to offset the beauty- and sex-emphasized perceptions. While 11 to 12 minutes of neutral commercials may have primed subjects into a more neutral-emphasized view of reality, these 11 to 12
minutes could not erase the many hours of television watched in the past. Thus subjects may have been unsure of their feelings due to past television viewing and the 11- to 12- minute segment that they saw. In sum, 11 to 12 minutes of commercial themes were not enough to measure cultivation effects.

In addition, 11 to 12 minutes of one strong theme may have reversed the effects that this study was looking for, thus actually de-emphasizing cultivation effects. Subjects may have actually been reminded of stereotyped images in the media by these commercials and answered in a "socially desirable" manner.

5.4.5 Priming

Although Tan explained his effects by cultivation, this thesis offered an alternative explanation, priming. The question is, was there a priming effect? The explanation for a lack of priming effects is similar to the explanation given above for lack of cultivation effects. The images that were used in the commercials were ones that subjects were aware
of and see often; therefore the "socially desirable" response probably overrode any priming effects.

5.4.6 What About the Questionnaire?

One further limitation to this study was the wording on the "Perceptions of Social Roles" questionnaire. The four roles were tested, for example, by asking, "To be successful in your job or career how important are the following?" Subjects may have responded with the "socially desirable" or "right" response rather than their own personal response. The role-related questions were looking for answers that subjects' responses regarding themselves.

Approximately ten subjects asked the experimenter during the experiment, "Do you want what we think, how it should be, or what we want our partners to be?" If ten students actually asked, it can be assumed that many more were confused.
5.5 Now--What? Directions for Future Research

The most important point to make for scholars in the future is that experiments may not be an appropriate measure to ascertain cultivation effects. Subjects were exposed to a brief 11-12 minute clip that portrayed examples of strong beauty/sex, wholesome beauty/youth, macho, or neutral themes. It is difficult to eliminate a lifetime of images with 11-12 minutes of commercial themes.

This study used a laboratory setting with rigid controls; thus it was very unlike the real world. Therefore, future research should employ surveys that compare real-life related questions with overall television viewing, or use overall television viewing as a covariate.

In the past a great deal of cultivation research has found that although there may not be significant results overall, if the data is divided into different parts, there are cultivation effects. Therefore, future researchers may want to look at
subjects' sex-role orientation and compare it with overall television viewing and perceptions of real-life roles.

Future research should also incorporate several methodological factors that this study did not include. For example, subjects should be pre-tested for their perceptions of real-life roles before exposure and then again after exposure. This procedure would help measure the degree of the exposure effects on subjects.

5.6 Conclusion

The purpose of this research was to determine among college students if beauty and macho ads cultivate perceptions reflecting the images of social reality seen in the ads. Commercials were also tested for effectiveness, likability, interest, and degree of recall, but these findings were more interest-oriented rather than theory-oriented.

The results of this and Tan's (1979) study were quite different. Tan (1979) found cultivation effects for highly personal roles, while this study did not. Many of the problems, especially that this was an
expansion rather than a pure replication, may explain the lack of cultivation effects found. However, unlike Tan's study, this one incorporated males and found significant gender differences.

Although this thesis did not find significant effects for perceptions of real-life roles, this may be good news. The good news is that times are changing; society is becoming more aware of negative stereotypes in the media. If the general population is indeed becoming more aware of the existence of negative images in the media and less apt to believe them as true, then the general population is becoming informed. More specifically, the lack of significant results could mean that education, especially in the college environment, concerning stereotyped and degrading images in the media is improving and in fact, successful. In the long run, which is more important, the significant results of one study or successful education concerning the negative images portrayed by the media?
APPENDIX A

PRE-TEST QUESTIONNAIRE
The purpose of this test is to evaluate television commercials. When the VCR pauses, please answer each of the three questions for each commercial.

All responses will be confidential. While we must ask for your name on this page, all identifying material will be removed from your responses.

You are free to discontinue participation at any time prior to the completion of the project.

Thank you for your participation.

Amy Lipka
Project Coordinator

I have read the above and give my consent to participate in this study.

_________________________   _______________________
Name (PLEASE PRINT)          Date

_________________________
Name (PLEASE SIGN)
Commercial Questionnaire

PLEASE CIRCLE WHETHER YOU THINK THE COMMERCIAL THAT YOU JUST SAW WAS VERY INTERESTING, QUITE INTERESTING, NOT TOO INTERESTING, OR NOT AT ALL INTERESTING. THEN TELL US IF YOU PERCEIVE STEREOTYPICAL BEHAVIORS, AND IF YOU DO, PLEASE TELL US WHAT THEY ARE.

COMMERCIAL #1
A. Do you think that this commercial was... 
   --VERY--  --QUITE--  --NOT TOO--  --NOT AT ALL--
   INTERESTING  INTERESTING  INTERESTING  INTERESTING

   B. Do you perceive stereotypical behaviors in the commercial?
   --VERY MUCH--  --MUCH--  --NOT MUCH--  --NOT AT ALL--

   C. What stereotypes?

COMMERCIAL #2
A. Do you think that this commercial was... 
   --VERY--  --QUITE--  --NOT TOO--  --NOT AT ALL--
   INTERESTING  INTERESTING  INTERESTING  INTERESTING

   B. Do you perceive stereotypical behaviors in the commercial?
   --VERY MUCH--  --MUCH--  --NOT MUCH--  --NOT AT ALL--

   C. What stereotypes?

COMMERCIAL #3
A. Do you think that this commercial was... 
   --VERY--  --QUITE--  --NOT TOO--  --NOT AT ALL--
   INTERESTING  INTERESTING  INTERESTING  INTERESTING

   B. Do you perceive stereotypical behaviors in the commercial?
C. What stereotypes?

COMMERCIAL #4
A. Do you think that this commercial was...

--VERY-- --QUITE-- --NOT TOO-- --NOT AT ALL--
INTERESTING INTERESTING INTERESTING INTERESTING

B. Do you perceive stereotypical behaviors in the commercial?

--VERY MUCH-- --MUCH-- --NOT MUCH-- --NOT AT ALL--

C. What stereotypes?

COMMERCIAL #5
A. Do you think that this commercial was...

--VERY-- --QUITE-- --NOT TOO-- --NOT AT ALL--
INTERESTING INTERESTING INTERESTING INTERESTING

B. Do you perceive stereotypical behaviors in the commercial?

--VERY MUCH-- --MUCH-- --NOT MUCH-- --NOT AT ALL--

C. What stereotypes?

COMMERCIAL #6
A. Do you think that this commercial was...

--VERY-- --QUITE-- --NOT TOO-- --NOT AT ALL--
INTERESTING INTERESTING INTERESTING INTERESTING

B. Do you perceive stereotypical behaviors in the commercial?

--VERY MUCH-- --MUCH-- --NOT MUCH-- --NOT AT ALL--

C. What stereotypes?

COMMERCIAL #7
A. Do you think that this commercial was...
--VERY-- --QUITE-- --NOT TOO-- --NOT AT ALL--
INTERESTING INTERESTING INTERESTING INTERESTING

B. Do you perceive stereotypical behaviors in the commercial?
--VERY MUCH-- --MUCH-- --NOT MUCH-- --NOT AT ALL--

C. What stereotypes?

COMMERCIAL #8
A. Do you think that this commercial was...
--VERY-- --QUITE-- --NOT TOO-- --NOT AT ALL--
INTERESTING INTERESTING INTERESTING INTERESTING

B. Do you perceive stereotypical behaviors in the commercial?
--VERY MUCH-- --MUCH-- --NOT MUCH-- --NOT AT ALL--

C. What stereotypes?

COMMERCIAL #9
A. Do you think that this commercial was...
--VERY-- --QUITE-- --NOT TOO-- --NOT AT ALL--
INTERESTING INTERESTING INTERESTING INTERESTING

B. Do you perceive stereotypical behaviors in the commercial?
--VERY MUCH-- --MUCH-- --NOT MUCH-- --NOT AT ALL--

C. What stereotypes?

COMMERCIAL #10
A. Do you think that this commercial was...
--VERY-- --QUITE-- --NOT TOO-- --NOT AT ALL--
INTERESTING INTERESTING INTERESTING INTERESTING
B. Do you perceive stereotypical behaviors in the commercial?
--VERY MUCH-- --MUCH-- --NOT MUCH-- --NOT AT ALL--

C. What stereotypes?

COMMERCIAL #11
A. Do you think that this commercial was.
--VERY-- --QUITE-- --NOT TOO-- --NOT AT ALL--
INTERESTING INTERESTING INTERESTING INTERESTING

B. Do you perceive stereotypical behaviors in the commercial?
--VERY MUCH-- --MUCH-- --NOT MUCH-- --NOT AT ALL--

C. What stereotypes?

COMMERCIAL #12
A. Do you think that this commercial was.
--VERY-- --QUITE-- --NOT TOO-- --NOT AT ALL--
INTERESTING INTERESTING INTERESTING INTERESTING

B. Do you perceive stereotypical behaviors in the commercial?
--VERY MUCH-- --MUCH-- --NOT MUCH-- --NOT AT ALL--

C. What stereotypes?

COMMERCIAL #13
A. Do you think that this commercial was.
--VERY-- --QUITE-- --NOT TOO-- --NOT AT ALL--
INTERESTING INTERESTING INTERESTING INTERESTING

B. Do you perceive stereotypical behaviors in the commercial?
--VERY MUCH-- --MUCH-- --NOT MUCH-- --NOT AT ALL--

C. What stereotypes?
COMMERCIAL #14

A. Do you think that this commercial was... 
-VERY--  --QUITE--  --NOT TOO--  --NOT AT ALL--
INTERESTING  INTERESTING  INTERESTING  INTERESTING

B. Do you perceive stereotypical behaviors in the commercial? 
-VERY MUCH--  --MUCH--  --NOT MUCH--  --NOT AT ALL--

C. What stereotypes?

COMMERCIAL #15

A. Do you think that this commercial was... 
-VERY--  --QUITE--  --NOT TOO--  --NOT AT ALL--
INTERESTING  INTERESTING  INTERESTING  INTERESTING

B. Do you perceive stereotypical behaviors in the commercial? 
-VERY MUCH--  --MUCH--  --NOT MUCH--  --NOT AT ALL--

C. What stereotypes?

COMMERCIAL #16

A. Do you think that this commercial was... 
-VERY--  --QUITE--  --NOT TOO--  --NOT AT ALL--
INTERESTING  INTERESTING  INTERESTING  INTERESTING

B. Do you perceive stereotypical behaviors in the commercial? 
-VERY MUCH--  --MUCH--  --NOT MUCH--  --NOT AT ALL--

C. What stereotypes?

COMMERCIAL #17

A. Do you think that this commercial was... 
-VERY--  --QUITE--  --NOT TOO--  --NOT AT ALL--
INTERESTING  INTERESTING  INTERESTING  INTERESTING

B. Do you perceive stereotypical behaviors in the
COMMERCIAL #18
A. Do you think that this commercial was...

--VERY-- --QUIT-- --NOT TOO-- --NOT AT ALL--
INTERESTING INTERESTING INTERESTING INTERESTING

B. Do you perceive stereotypical behaviors in the commercial?

--VERY MUCH-- --MUCH-- --NOT MUCH-- --NOT AT ALL--

C. What stereotypes?

COMMERCIAL #19
A. Do you think that this commercial was...

--VERY-- --QUIT-- --NOT TOO-- --NOT AT ALL--
INTERESTING INTERESTING INTERESTING INTERESTING

B. Do you perceive stereotypical behaviors in the commercial?

--VERY MUCH-- --MUCH-- --NOT MUCH-- --NOT AT ALL--

C. What stereotypes?

COMMERCIAL #20
A. Do you think that this commercial was...

--VERY-- --QUIT-- --NOT TOO-- --NOT AT ALL--
INTERESTING INTERESTING INTERESTING INTERESTING

B. Do you perceive stereotypical behaviors in the commercial?

--VERY MUCH-- --MUCH-- --NOT MUCH-- --NOT AT ALL--

C. What stereotypes?

THANK YOU FOR YOUR PARTICIPATION
APPENDIX B

RESULTS OF PRETEST
**Heavy beauty and/or sex appeal commercials:**

Eighteen subjects were pre-tested in the **heavy beauty and/or sex appeal** condition. The following represent percentages of subjects who thought commercials contained heavy beauty and/or sex:

<table>
<thead>
<tr>
<th>Product</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revlon Lipstick</td>
<td>77%</td>
</tr>
<tr>
<td>Coors Light</td>
<td>100%</td>
</tr>
<tr>
<td>Taco Bell</td>
<td>83%</td>
</tr>
<tr>
<td>Clairol Condition</td>
<td>83%</td>
</tr>
<tr>
<td>Aspen Cologne</td>
<td>94%</td>
</tr>
<tr>
<td>Bugle Boys</td>
<td>94%</td>
</tr>
<tr>
<td>Miller Genuine Draft</td>
<td>88%</td>
</tr>
<tr>
<td>Prell Shampoo</td>
<td>77%</td>
</tr>
<tr>
<td>Jovan Musk</td>
<td>88%</td>
</tr>
<tr>
<td>Perma Soft</td>
<td>66%</td>
</tr>
<tr>
<td>Certs</td>
<td>59%</td>
</tr>
<tr>
<td>Diet Coke</td>
<td>77%</td>
</tr>
<tr>
<td>Chic Jeans</td>
<td>83%</td>
</tr>
</tbody>
</table>
Minimal beauty and/or youth commercials

Between 17 and 19 subjects (two students came late) were pretested for the minimal beauty and/or youth commercials. The following represent percentages of subjects who thought that these commercials contained beauty, with an emphasis on youth:

<table>
<thead>
<tr>
<th>Product</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z Cavaricci</td>
<td>59%</td>
</tr>
<tr>
<td>Keystone</td>
<td>89%</td>
</tr>
<tr>
<td>Revlon</td>
<td>94%</td>
</tr>
<tr>
<td>Jose Eber Hair Products</td>
<td>67%</td>
</tr>
<tr>
<td>Bugle Boys</td>
<td>100%</td>
</tr>
<tr>
<td>Snapple</td>
<td>77%</td>
</tr>
<tr>
<td>Coke</td>
<td>83%</td>
</tr>
<tr>
<td>Elizabeth Arden</td>
<td>88%</td>
</tr>
<tr>
<td>Lite 'n Lively</td>
<td>59%</td>
</tr>
<tr>
<td>Flex Shampoo and Conditioner</td>
<td>76%</td>
</tr>
<tr>
<td>Oil of Olay</td>
<td>71%</td>
</tr>
<tr>
<td>Product</td>
<td>Rating</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Nexus</td>
<td>64% / 23% (sex)</td>
</tr>
<tr>
<td>Florida Grapefruit Juice</td>
<td>65%</td>
</tr>
<tr>
<td>Ogilve</td>
<td>55%</td>
</tr>
<tr>
<td>Pert Shampoo</td>
<td>72%</td>
</tr>
<tr>
<td>Cover Girl</td>
<td>84%</td>
</tr>
<tr>
<td>Maybelline</td>
<td>95%</td>
</tr>
<tr>
<td>Clairol Loving Care</td>
<td>79% / 11% (sex)</td>
</tr>
<tr>
<td>Keri Lotion</td>
<td>53%</td>
</tr>
<tr>
<td>Real Milk</td>
<td>47%</td>
</tr>
<tr>
<td>Oil of Olay SPF</td>
<td>63%</td>
</tr>
<tr>
<td>Salon Selectives</td>
<td>68%</td>
</tr>
<tr>
<td>Dove</td>
<td>47%</td>
</tr>
<tr>
<td>Special K Cereal</td>
<td>79%</td>
</tr>
<tr>
<td>Budweiser</td>
<td>59%</td>
</tr>
<tr>
<td>Voluminous Mascara</td>
<td>84%</td>
</tr>
<tr>
<td>Oil of Olay (foaming face)</td>
<td>did not pre-test</td>
</tr>
<tr>
<td>Vibrance (new)</td>
<td>?</td>
</tr>
</tbody>
</table>
Macho traits or behaviors

Between 15-17 subjects (two students came late) were pretested for the *macho commercials*. The following represent percentages of subjects who thought that these commercials contained macho appeals:

<table>
<thead>
<tr>
<th>Product</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alka-Seltzer Plus</td>
<td>67%</td>
</tr>
<tr>
<td>Duracel</td>
<td>27%</td>
</tr>
<tr>
<td>Nike</td>
<td>13%</td>
</tr>
<tr>
<td>Coors Light</td>
<td>56%</td>
</tr>
<tr>
<td>Boss Clothes</td>
<td>81%</td>
</tr>
<tr>
<td>Texaco</td>
<td>75%</td>
</tr>
<tr>
<td>Listerine</td>
<td>24%</td>
</tr>
<tr>
<td>Slim Jim</td>
<td>53%</td>
</tr>
<tr>
<td>Budweiser</td>
<td>76%</td>
</tr>
<tr>
<td>Kit Kat</td>
<td>75%</td>
</tr>
<tr>
<td>General Nutrition Center</td>
<td>82%</td>
</tr>
<tr>
<td>Amino 1000</td>
<td></td>
</tr>
<tr>
<td>Bic Razors</td>
<td>88%</td>
</tr>
<tr>
<td></td>
<td>50%/50% (black)</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Fila</td>
<td></td>
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<tr>
<td>Diet Mountain Dew</td>
<td>71%</td>
</tr>
<tr>
<td>Real Milk</td>
<td>88%</td>
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<tr>
<td>Head and Shoulders</td>
<td>81%</td>
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<tr>
<td>Old Spice</td>
<td>88%</td>
</tr>
<tr>
<td>Miller Genuine Draft</td>
<td>53%</td>
</tr>
<tr>
<td>G.N.C.—Vortex</td>
<td>81%</td>
</tr>
<tr>
<td>L.A. Gear</td>
<td>87%</td>
</tr>
<tr>
<td>Nestle Crunch (new)</td>
<td>?</td>
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</tbody>
</table>
Neutral commercials

(1) VW

(2) Circuit City: woman appears subservient, looks to man for how to operate

(3) VCR Plus: assumes people cannot program a VCR

(4) Pizza Hut: woman in the kitchen

(5) Disney World: family, Some women, have loud, flashy outfits

(6) Allstate: stereotype of typical family

(7) United Airlines

(8) Roy Rogers

(9) Mystic Places

(10) Acme

(11) Cambells Soup: woman in kitchen

(12) Dominos Pizza: family settings

(13) Honda Accord: aimed toward middle class

(14) Dristan Cold and Flu Medicine

(15) Tilex

(16) Bob's Big Boy

(17) Express Mail: man picking up a package

(18) Volvo: men know more about cars

(19) 7 Up: assumes Christian holiday is the norm

(20) Shop Rite: woman talks about products
APPENDIX C

THE COMMERCIALS
List of commercials actually used in experiment and their times:

The commercials:

(1) The Heavy beauty and/or sex appeal commercial excerpt was 12 minutes, 20 seconds long. Heavy beauty and/or sex appeal commercials were:

(a) Revlon Lipstick (30)
(b) Coors Light (30)
(c) Taco Bell (20)
(d) Clairol Condition (30)
(e) Aspen Cologne (15)
(f) Bugle Boys (30)
(g) Miller Genuine Draft (30)
(h) Prell Shampoo (30)
(i) Jovan Musk (25)
(j) Perma Soft (15)
(k) Certs (30)
(l) Z Cavaricci (30)
(m) Diet Coke (30)
(n) Chic jeans (30)
(o) Keystone (20)
(p) Revlon (60)
(q) Jose Eber Hair Products (30)
(r) Bugle Boys (30)
(s) Snapple (30)
(t) Coke (30)

(2) The wholesome beauty and/or youth commercial excerpt was 11 minutes, 19 seconds long. Wholesome beauty and/or youth commercials are:

(a) Elizabeth Arden (30)
(b) Lite 'n Lively (30)
(c) Flex Shampoo and Conditioner (30)
(d) Oil of Olay (30)
(e) Vibrance (30)
(f) Florida Grapefruit Juice (15)
(g) Ogilve (treatment for perms) (30)
(h) Pert Shampoo (30)
(i) Cover Girl (30)
(3) The macho commercial excerpt was 10 minutes and 51 seconds long. The following commercials were used to illustrate **masculine** traits or behaviors:

(a) Alka-Seltzer Plus (15)
(b) Duracel (15)
(c) Coors Light (25)
(d) Boss (30)
(e) Texaco (30)
(f) Listerine (15)
(g) Slim Jim (30)
(h) Budweiser (30)
(i) Kit Kat (15)
(j) General Nutrition Center--Amino 1000 (30)
(k) Bic Razors (15)
(l) Fila (30)
(m) Diet Mountain Dew (30)
(n) Real Milk (30)
(o) Head and Shoulders Shampoo (30)
(p) Old Spice (20)
(q) General Nutrition Center--Vortex (30)
(r) Miller Genuine Draft (30)
(s) L.A. Gear (30)
(t) Nestle Crunch Bar (30)

(4) The neutral commercial segment was 10 minutes, 45 seconds long. **Neutral commercials** were:

(a) VW (30)
(b) Circuit City (30)
(c) VCR Plus (30)
(d) Pizza Hut (20)
(e) Disney World (30)
(f) Allstate (30)
(g) United Airlines (45)
(h) Roy Rogers (20)
(i) Mystic Places (30)
(j) Acme (15)
(k) Cambells Soup (15)
(l) Dominos Pizza (15)
(m) Honda Accord (30)
(n) Dristan Cold and Flu Medicine (30)
(o) Tilex (15)
(p) Bob’s Big Boy (30)
(q) Express Mail (20)
(r) Volvo (30)
(s) 7 up (25)
(t) Shop Rite (25)
APPENDIX D

PERCEPTIONS OF SOCIAL ROLES QUESTIONNAIRE
The purpose of this questionnaire is to help us pre-test for another experiment that will take place during the summer. Please make sure to answer all 10 parts for each of the four questions.

All responses will be confidential and anonymous. While we must ask for your name on this page, it is only for your permission to participate and so that you receive credit for participating. All identifying material will be removed from your responses.

You are free to discontinue participation at any time prior to the completion of the project.

Thank you for your participation.

Nancy Signorielli
Project Coordinator

I have read the above and give my consent to participate in this questionnaire.

Name (PLEASE PRINT)  Date

Name (PLEASE SIGN)
QUESTIONNAIRE

This questionnaire will help us to pre-test another experiment that will take place this summer. Please answer each of the following questions by telling us how important the following four roles are to you.

For the following four questions please tell us how important (VERY IMPORTANT, QUITE IMPORTANT, NOT TOO IMPORTANT, NOT AT ALL IMPORTANT) you think each adjective is for each role. Thank you.

1. To be successful in your career or job how important are the following?

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<thead>
<tr>
<th>Role</th>
<th>VERY IMPORTANT</th>
<th>QUITE IMPORTANT</th>
<th>NOT TOO IMPORTANT</th>
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<td>an attractive face is:</td>
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<td>intelligence is:</td>
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<td>hard-working is:</td>
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<td>a youthful appearance is:</td>
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<td>to be classy is:</td>
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<td>competence is:</td>
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</table>
2. To be a successful spouse, how important are the following?

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3. To be popular with or liked by potential romantic partners, how important are the following?

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4. For you personally, how desirable or important are the following characteristics?

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THANK YOU FOR YOUR PARTICIPATION
APPENDIX E

COMMERCIAL EVALUATION QUESTIONNAIRE
The purpose of this experiment is to evaluate television commercials. After viewing 20 commercials, you will be asked how much you liked the commercials, how interested you were in them and how effective you think they were at selling the advertised product.

All responses will be confidential and anonymous. While we must ask for your name on this page, it is only for your permission to participate and so that you get credit for participating in the experiment. All identifying material will be removed from your responses.

You are free to discontinue participation at any time prior to the completion of the project.

Thank you for your participation.

Amy Lipka
Project Coordinator

I have read the above and give my consent to participate in this study.

Name (PLEASE PRINT) ____________________________ Date ____________

Name (PLEASE SIGN) ____________________________
COMMERCIAL EVALUATION QUESTIONNAIRE

Please answer the following questions. This is your opportunity to evaluate the commercials you have just seen. Thank you.

FOR THE FOLLOWING FOUR QUESTIONS PLEASE CIRCLE THE CORRECT RESPONSE

1. As a whole, how much did you like the commercials that you saw?
   VERY MUCH   SOMEWHAT   NOT VERY   MUCH   NOT AT ALL

2. As a whole, how effective do you think that the commercials were at selling the product advertised?
   VERY EFFECTIVE   QUITE EFFECTIVE   NOT VERY EFFECTIVE   NOT AT ALL EFFECTIVE

3. As a whole, how interesting do you think the commercials that you saw were?
   VERY INTERESTING   QUITE INTERESTING   NOT TOO INTERESTING   NOT AT ALL INTERESTING

FOR THE FOLLOWING QUESTIONS PLEASE FILL IN THE BLANKS

4. Please list any products that you remembered being advertised in the previous commercials.

5. Approximately how many hours of television did you watch YESTERDAY? _____
6. Approximately how many hours of television do you watch on the AVERAGE DAY? __

7. Are you male___ or female___?

8. Please check the last year of education that you completed...
   high school___
   first year___
   sophomore year___
   junior year___
   senior year___

9. How old were you on your last birthday? ___

10. Did you have any previous knowledge about this experiment? Yes___ No___
    If you answered YES, what have you heard??

THANK YOU VERY MUCH FOR YOUR PARTICIPATION
APPENDIX F

SCRIPTS UPON STARTING
EXPOSURE CONDITIONS

You will be helping us with two studies today. The first study concerns evaluations of television commercials. Please pay close attention to the commercials that you see so that you can tell us how effective, likable and interesting they are.

The second study that you will be helping us with is a pre-test for another experiment. By helping, you will fill out a brief questionnaire. (Do not tell the subjects the actual purpose of the study).

When you are finished, please turn your questionnaires over.
The questionnaires that you are supposed to answer are running a few minutes late; please keep busy with the supplied "games" and newspapers until they get here. Or, not everybody is here; please wait a few minutes until they get here. (This will be 11 minutes.)

Please answer all four of the questions on the questionnaire.

When you are finished, please turn your questionnaires over.
Thank you for your participation in this experiment. The purpose of this experiment was to determine if exposure to television commercials that used beauty, sex appeal, youth, or macho appeals to sell products affects viewers' perceptions of roles they play in their real life. Both of the questionnaires were part of this study.

This experiment was part of a research project about sex-role images on television commercials. Sex-role portrayals in television commercials occur quite often and can have negative effects on viewers, but they are not reality. You saw examples of sex-role images in all of the previous 20 television commercials. For example, (1) Bugle Boy uses sex to sell their product, (2) Oil of Olay uses "wholesome" beauty to sell their product, and (3) Texaco uses macho men to sell their product. It is important for you all to remember that women do not have to be beautiful, sexy or youthful, and men do not have to be macho and rugged to be successful in life. For example, Mother Theresa and Eleanor Roosevelt were very successful women.

Once again, the purpose of this experiment was to look at the effects of commercials that use beauty, sex, youth, or macho (say the condition that subjects just saw) sex-role portrayals and appeals to sell products.

You all should be aware that the media can be hazardous to your health and that these commercials are not reality.

Now, please watch this clip from a prime-time television show that touches on this matter.

It is very important that you as subjects do not discuss this experiment with anyone until all data are collected. In order to find out what effects these television commercials have, we need participants that are not aware of the purpose of the experiment.

Thanks again for your participation.

Amy Lipka
Primary Researcher
REFERENCES


