

CHARACTER PORTRAYALS IN DIRECT-TO-CONSUMER ADVERTISING  
TARGETING ELDERLY CONSUMERS

By

CHRISTOPHER MICHAEL MASSICOT

A THESIS PRESENTED TO THE GRADUATE SCHOOL  
OF THE UNIVERSITY OF FLORIDA IN PARTIAL FULFILLMENT  
OF THE REQUIREMENTS FOR THE DEGREE OF  
MASTER OF ADVERTISING

UNIVERSITY OF FLORIDA

2011

© 2011 Christopher Michael Massicot

To my mom, dad, and fiancée, Kelly

## ACKNOWLEDGMENTS

I thank my advisor, Hyojin Kim, for her unwavering patience throughout this process. I also thank my parents for their support and, of course, patience. Last but certainly not least, I thank my fiancée, Kelly, whose presence in my life gives me all the motivation in the world to succeed. Her love and support has been crucial to my accomplishment of this feat.

# TABLE OF CONTENTS

	<u>page</u>
ACKNOWLEDGMENTS.....	4
LIST OF TABLES.....	8
LIST OF ABBREVIATIONS.....	11
ABSTRACT .....	12
CHAPTER	
1 INTRODUCTION .....	14
Previous Content Analyses of DTCA.....	15
Social Cognitive Theory.....	15
Purpose .....	16
2 LITERATURE REVIEW .....	17
Portrayal of Elderly Characters on Television .....	17
Proportion of Elderly Characters .....	18
Behavioral/Emotional/Cognitive Traits.....	19
Occupation/Prestige .....	20
Gender Differences .....	20
Ethnicity.....	22
Elderly Target Audience .....	23
Portrayal of Elderly Characters in Advertising.....	24
Prevalence of Elderly Characters .....	24
Product Category .....	25
Behavioral/Emotional/Cognitive Traits.....	26
Physical Ability/Presentation .....	28
Social Context/Physical Setting/Ad theme.....	29
Role Prominence.....	31
Gender .....	32
Ethnicity.....	33
Review of DTCA Content Analyses .....	34
Identification of Condition .....	34
Medical Information .....	35
Presentation/Structure of Ads.....	36
Selling Points and Sales Pitches.....	37
Message Appeal.....	38
Models/Characters .....	39
Target Audience .....	41
Research Questions .....	41

3	METHODOLOGY .....	43
	Sampling Design.....	43
	Variables.....	46
	Health Condition.....	47
	Tone.....	48
	Setting.....	48
	Theme.....	48
	Character's Age.....	49
	Character's Gender/Ethnicity.....	51
	Character's Occupational Category.....	52
	Character's Role.....	52
	Character Traits.....	53
	Coding Procedure.....	54
	Intercoder Reliability .....	55
4	RESULTS .....	57
	Prevalence of Older Versus Younger Characters: Central and Supporting .....	57
	Character's Age and Role.....	58
	Prevalence of Male Versus Female Characters.....	58
	Character's Gender and Role .....	59
	Prevalence of Ethnicities.....	59
	Character's Ethnicity and Role.....	59
	Character's Demographic Relationships.....	60
	Character's Age and Gender.....	60
	Character's Age and Ethnicity .....	61
	Character's Gender and Ethnicity.....	61
	Differences between Character Ages, Genders, and Ethnicities in terms of Occupational Status and Ad Variables .....	61
	Occupational Status Variable .....	64
	Character's age and occupational status .....	64
	Character's gender and occupational status.....	64
	Character's ethnicity and occupational status.....	64
	Health Condition Variable.....	65
	Character's age and targeted health condition.....	65
	Character's gender and targeted health condition .....	66
	Character's ethnicity and targeted health condition .....	66
	Tone Variable .....	67
	Character's age and tone of the ad.....	68
	Character's gender and tone of the ad.....	68
	Character's ethnicity and tone of the ad.....	69
	Theme Variable .....	69
	Character's age and theme of the ad.....	70
	Character's gender and theme of the ad.....	71
	Character's ethnicity and theme of the ad.....	71
	Setting Variable .....	72

Character's age and setting of the ad .....	72
Character's gender and setting of the ad .....	73
Character's ethnicity and setting of the ad .....	74
Emergence of Stereotypes .....	74
Negative Stereotypes .....	76
Positive Stereotypes.....	76
Differences in Stereotypical Portrayals in terms of Character Demographics and Ad Variables .....	77
Character's Age and Stereotyping.....	77
Character's Gender and Stereotyping .....	79
Character's Ethnicity and Stereotyping .....	80
Character's Occupational Status and Stereotyping .....	80
Health Condition and Stereotyping.....	81
Tone and Stereotyping .....	84
Theme and Stereotyping .....	86
Setting and Stereotyping .....	89
 5 DISCUSSION .....	 117
Character's Age .....	117
Character's Gender .....	119
Character's Ethnicity .....	120
Character's Demographic Relationships.....	120
Character's Occupational Status .....	121
Relationships between Character Demographics and Health Condition.....	122
Relationships between Character Demographics and Tone .....	124
Relationships between Character Demographics and Theme .....	125
Relationships between Character Demographics and Setting .....	126
Stereotyping in DTCA .....	127
Character's Age and Negative Stereotyping.....	128
Ad Variables and Negative Stereotyping .....	128
Character's Age and Positive Stereotyping .....	129
Occupational Status and Positive Stereotyping.....	131
Ad Variables and Positive Stereotyping .....	131
Limitations of the Study.....	132
Suggestions for Future Research .....	133
Conclusion .....	135
 APPENDIX	
 A CODE BOOK.....	 139
 B CODING SHEET .....	 147
 LIST OF REFERENCES .....	 150
 BIOGRAPHICAL SKETCH.....	 153

## LIST OF TABLES

<u>Table</u>	<u>page</u>
4-1 Age Distribution: All Characters.....	93
4-2 Age Distribution: Central Characters .....	93
4-3 Age Distribution: Supporting Characters .....	93
4-4 Age and Role.....	93
4-5 Gender Distribution: All Characters .....	93
4-6 Gender Distribution: Central Characters.....	94
4-7 Gender Distribution: Supporting Characters .....	94
4-8 Gender and Role .....	94
4-9 Ethnicity Distribution: All Characters.....	94
4-10 Ethnicity Distribution: Central Characters .....	94
4-11 Ethnicity Distribution: Supporting Characters .....	94
4-12 Ethnicity and Role.....	95
4-13 Age and Gender: Central Characters .....	95
4-14 Age and Ethnicity: Central Characters.....	95
4-15 Gender and Ethnicity: Central Characters .....	96
4-16 Occupational Category Distribution: Central Characters .....	96
4-17 Age and Occupational Status: Adult, Younger Elderly, and Older Elderly Central Characters .....	96
4-18 Gender and Occupational Status: Adult, Younger Elderly, and Older Elderly Central Characters .....	96
4-19 Ethnicity and Occupational Status: Adult, Younger Elderly, and Older Elderly Central Characters .....	97
4-20 Health Condition Distribution: Central Characters .....	97
4-21 Age and Health Condition: Adult, Younger Elderly, and Older Elderly Central Characters.....	98

4-22	Gender and Health Condition: Adult, Younger Elderly, and Older Elderly Central Characters .....	98
4-23	Ethnicity and Health Condition: Adult, Younger Elderly, and Older Elderly Central Characters .....	99
4-24	Tone Distribution: Central Characters .....	99
4-25	Age and Tone: Adult, Younger Elderly, and Older Elderly Central Characters...	99
4-26	Gender and Tone: Adult, Younger Elderly, and Older Elderly Central Characters.....	100
4-27	Ethnicity and Tone: Adult, Younger Elderly, and Older Elderly Central Characters.....	100
4-28	Theme Distribution: Central Characters .....	100
4-29	Age and Theme: Adult, Younger Elderly, and Older Elderly Central Characters.....	101
4-30	Gender and Theme: Adult, Younger Elderly, and Older Elderly Central Characters.....	101
4-31	Ethnicity and Theme: Adult, Younger Elderly, and Older Elderly Central Characters.....	102
4-32	Setting Distribution: Central Characters .....	102
4-33	Age and Setting: Adult, Younger Elderly, and Older Elderly Central Characters.....	103
4-34	Gender and Setting: Adult, Younger Elderly, and Older Elderly Central Characters.....	103
4-35	Ethnicity and Setting: Adult, Younger Elderly, and Older Elderly Central Characters.....	104
4-36	Traits: Central Characters .....	105
4-37	Factor Analysis: Stereotypes of Central Characters .....	106
4-38	Age and Level of the Despondent Stereotype: Central Characters .....	106
4-39	Age and Level of the Health Advocate Stereotype: Central Characters .....	107
4-40	Age and Level of the Impaired Stereotype: Central Characters.....	107
4-41	Age and Level of the Picture Perfect Stereotype: Central Characters .....	107

4-42	Age and Level of the Virtuoso Stereotype: Central Characters .....	108
4-43	Gender and Stereotype Level: Central Characters.....	108
4-44	Ethnicity and Stereotype Level: Central Characters .....	109
4-45	Occupational Status and Stereotype Level: Central Characters.....	110
4-46	Health Condition and Level of the Health Advocate Stereotype: Central Characters.....	110
4-47	Health Condition and Level of the Impaired Stereotype: Central Characters ...	111
4-48	Health Condition and Level of the Picture Perfect Stereotype: Central Characters.....	111
4-49	Health Condition and Level of the Virtuoso Stereotype: Central Characters ....	111
4-50	Tone and Level of the Despondent Stereotype: Central Characters .....	112
4-51	Tone and Level of the Health Advocate Stereotype: Central Characters .....	112
4-52	Tone and Level of the Impaired Stereotype: Central Characters.....	112
4-53	Tone and Level of the Picture Perfect Stereotype: Central Characters .....	113
4-54	Tone and Level of the Virtuoso Stereotype: Central Characters.....	113
4-55	Theme and Level of the Despondent Stereotype: Central Characters .....	113
4-56	Theme and Level of the Health Advocate Stereotype: Central Characters .....	114
4-57	Theme and Level of the Impaired Stereotype: Central Characters.....	114
4-58	Theme and Level of the Picture Perfect Stereotype: Central Characters .....	114
4-59	Theme and Level of the Virtuoso Stereotype: Central Characters.....	115
4-60	Setting and Level of the Despondent Stereotype: Central Characters .....	115
4-61	Setting and Level of the Health Advocate Stereotype: Central Characters .....	115
4-62	Setting and Level of the Impaired Stereotype: Central Characters.....	116
4-63	Setting and Level of the Picture Perfect Stereotype: Central Characters .....	116
4-64	Setting and Level of the Virtuoso Stereotype: Central Characters.....	116

## LIST OF ABBREVIATIONS

DTC	Direct-to-consumer
DTCA	Direct-to-consumer advertising

Abstract of Thesis Presented to the Graduate School  
of the University of Florida in Partial Fulfillment of the  
Requirements for the Degree of Master of Advertising

CHARACTER PORTRAYALS IN DIRECT-TO-CONSUMER ADVERTISING  
TARGETING ELDERLY CONSUMERS

By

Christopher Michael Massicot

August 2011

Chair: Hyojin Kim  
Major: Advertising

The present research has taken steps toward describing more fully the direct-to-consumer advertising (DTCA) to which elderly consumers are exposed, with a particular emphasis on describing character portrayals. To achieve this aim, a content analysis of 273 Direct-to-consumer (DTC) ads from elderly-targeted magazines was employed. Aside from corroborating what has been observed in previous DTCA research in terms of character demographics (i.e., that the majority of characters fall within the 18-49 age range, are female, and are Caucasian), this study found that the vast majority of characters are not portrayed in an occupational capacity. Furthermore, this study was able to shed light on the specific health conditions, ad themes, settings, and overall tones that tended to correspond with a particular age group, gender, or ethnicity. It was found that characters from the older elderly age group (65+) showed the most deviations from overall trends. Cardiovascular conditions, the empowering tone, the family theme, and an outdoors setting were the most prevalent categories for older elderly characters.

This study also identified specific “stereotypes” of characters in DTCA through a factor analysis of 34 character traits coded for each central character, finding three

positive stereotypes (Picture Perfect, Health Advocate, and Virtuoso) and two negative stereotypes (Despondent and Impaired). These stereotype groups were then analyzed for relationships with demographic and ad variables. Indeed, it was found that a character's age seems to be the primary determinant of stereotypical portrayals. While the majority of characters regardless of age were portrayed flatteringly throughout DTCA, the impaired stereotype was most strongly tied to characters from the older elderly age group.

## CHAPTER 1 INTRODUCTION

Direct-to-consumer advertising (DTCA) in the United States has been prevalent since 1997, when the FDA made a decision to minimize their regulations and it became conceivable for pharmaceutical companies to initiate wide scale advertising of prescription drugs to the general public on television (Baukus, 2004). Before DTCA, the promotion of prescription drugs was limited to medical journals and targeted physicians, who are the ones responsible for writing prescriptions (Baukus, 2004; Bell, Kravitz, & Wilkes, 2000; Shah, Holmes, & Desselle, 2003). As the FDA's regulations diminished, marketing channels for DTCA began to include vehicles of mass media such as popular magazines, television, and the Internet (Bell, Wilkes, & Kravitz, 2000). Despite the easing of regulations, one of the FDA's primary remaining regulations for DTCA is that there must be a balance of benefits and risks in every advertisement (Woloshin, Schwartz, & Welch, 2001).

The reasoning behind advertising prescription drugs directly to consumers is that patients will ask their doctors about the advertised drugs, which in turn will influence the doctors to write prescriptions for these drugs. Also, it is a way to develop brand loyalty as the drug reaches the end of its patent protection and cheaper, generic versions emerge (Baukus, 2004). This type of promotion, of course, is not without controversy. Proponents of DTCA argue that it causes patients to become more involved in health care and improves the quality of patient-doctor dialogue, while its detractors contest that it interferes with the doctor-patient relationship and leads to misperceptions about the drugs due to an overemphasis on emotional appeals and a downplay of risks.

## **Previous Content Analyses of DTCA**

Over the years since DTC promotion has emerged into the mainstream, a number of content analyses of DTCA have been conducted to illustrate the format and trends associated with this type of promotion. Categories of investigation in these content analyses tend to focus on the informative value of DTCA, with an emphasis on the presentation of benefits and risks (Bell et al., 2000; Kaphingst et al., 2004; Sumpradit, Ascione, & Bagozzi, 2003). Other areas of investigation include message appeal (Main et al., 2004; Pinto, 2000; Shah et al., 2003; Woloshin et al., 2001) and target audience (Bell et al., 2000; Shah et al., 2003).

One area that has been studied with little frequency, however, is an analysis of the models/characters featured in DTCA. To date, Cline and Young (2004), in their content analysis of DTC magazine ads, have conducted the most in-depth analysis of models/characters featured in DTCA. Seeking to shed light on the diversity (or lack thereof) of models/characters in DTCA based on such demographic characteristics as age, gender, and ethnicity, their analysis spans a broad range of magazine categories and encompasses a diverse readership. No content analyses, however, have been conducted zeroing in on characteristics associated with the portrayal of elderly models/characters in DTCA.

## **Social Cognitive Theory**

Within the framework of social cognitive theory, it has been demonstrated that the way members of a particular group of people are portrayed in the mass media can shape the self-perceptions of individuals within that group, as well as the perceptions of outsiders regarding members of that particular group (Bandura, 2001). Therefore, negative portrayals of elderly people in television shows, general advertising, and DTCA

can result in negative stereotyping of the elderly from younger people and a poor self-image on the part of the elderly. In the particular case of DTCA, a vehicle which elderly consumers are heavily exposed to, it is important to understand the potential effects on the self-image of the elderly, as well as the potential implications on their healthcare.

### **Purpose**

In light of the gap in the literature concerning the portrayal of elderly characters in DTCA, as well as the potential for negative effects on the self-image of elderly consumers and stereotyping from younger people towards the elderly, the purpose of this study is to describe more fully the direct-to-consumer advertising to which elderly consumers are exposed, with a particular emphasis on describing character portrayals. What follows is a review of the literature that shaped this study's research questions and provided the basis for the present content analysis of 273 direct-to-consumer (DTC) ads from elderly-targeted magazines. In the present study, each ad and character was analyzed according to a combination of character and ad variables derived from the reviewed studies.

## CHAPTER 2 LITERATURE REVIEW

While the amount of available literature concerning the portrayal of the elderly in DTCA is scant, an extensive amount of literature on the portrayal of the elderly in dramatic television programming and sitcoms, as well as general advertising in both television and magazines is reviewed in order to provide insight into the ways that elderly characters might be portrayed in DTCA. Also, despite the lack of previous in-depth analysis of the portrayal of characters in DTCA, a review of content analyses from every area of study pertaining to DTCA is included in order to round out the picture of what has been investigated previously, and what has been discovered, regarding trends in DTCA. Therefore, by their illumination of trends in the portrayal of elderly characters in formats outside of DTCA, as well as trends in the presentation of DTC ads, such studies served to guide the present analysis of DTCA targeting elderly consumers, including the portrayal of elderly characters in DTCA. Overall, the literature review covers the following three areas: a review of content analyses of elderly characters on television, a review of content analyses of elderly characters in advertising, and a review of DTCA content analyses.

### **Portrayal of Elderly Characters on Television**

A thorough review of content analyses of elderly characters on television programming revealed six primary categories of interest: (1) Proportion of elderly characters, (2) Behavioral/emotional/cognitive traits, (3) Occupation/prestige, (4) Gender differences, (5) Ethnicity, and (6) Target Audience.

## **Proportion of Elderly Characters**

The under-representation of elderly characters on television has been observed in programming from as far back as the late 1960s (Signorielli & Bacue, 1999). Signorielli and Bacue (1999) found in their study of prime-time television characters spanning the years 1967-1998 that consistently only 3% of the characters from each decade were elderly, an under-representation of the elderly in a manner that is grossly disproportionate to their actual presence in the U.S. population. While studies of the portrayal of elderly characters focusing specifically on television in the 1980s are few and far between, there is a substantial amount of literature focusing on the portrayal of elderly characters on television in the 1970s (Gerbner et al., 1980; Greenber, Korzenny, & Atkin, 1979; Greenberg, Simmons, Hogan, & Atkin, 1980) and the 1990s (Signorielli, 2004) that corroborate Signorielli and Bacue's (1999) finding of consistent under-representation of the elderly across these decades. It has been further observed that the under-representation of elderly characters on prime-time television has continued from the 90s into the new millennium with the same disproportionately small number of elderly characters (Lauzen & Dozier, 2005; Signorielli, 2004).

Another recurring trend that has been observed across decades is that the majority of characters on television fall somewhere in the spectrum of young adult through middle-age, with disproportionately high numbers of characters in this age range relative to the actual population (Gerbner et al., 1980; Greenberg et al., 1979; Greenberg et al., 1980; Lauzen & Dozier, 2005). Therefore, the age distribution of television characters tends to inflate in the middle and decline towards either end, with under-representation of both children and the elderly. It has been suggested by Gerbner

et al. (1980) that this character distribution pattern is reflective of the distribution pattern for age-related consumer income.

Interestingly, however, Dail (1988) found in his examination of the portrayal of older adults in family-oriented prime-time television programs that characters over the age of 55 were actually represented in greater numbers than those approximating age 55, a clear departure from the findings of previous studies focusing on a more general sample of dramatic programming. This would seem to indicate, then, that family-oriented programming is one area where older elderly characters might fit in much better than younger elderly/older middle-aged characters, fulfilling the roles of elderly relatives such as grandparents.

### **Behavioral/Emotional/Cognitive Traits**

According to Gerbner et al. (1980), older characters on television are much more likely than younger characters to be eccentric or foolish in some way, devoid of common sense and acting irrationally. In fact, about half of all elderly male characters and two-thirds of elderly women were portrayed this way. Not surprisingly, then, it was found that elderly characters, particularly elderly men, were much more likely to assume comedic roles than serious roles (Gerbner et al., 1980).

As for specific character types, those that prevailed include old codgers, benevolent grandparents, and action-oriented men (Greenberg et al., 1979). In addition, of the 15 percent of major characters (across age groups) portraying “bad” characters as opposed to “good” characters, a disproportionate number of these characters were elderly characters when considering the overall under-representation of elderly characters on television. For males, the observed pattern is quite straightforward: the older the character, the greater the likelihood that the character is “bad.” The pattern is

somewhat different for females, with young girls more likely to portray “bad” characters than young women or middle-aged women, but then becoming much more likely to portray a “bad” character once reaching old age (Gerbner et al., 1980).

### **Occupation/Prestige**

On television there seems to be a direct relationship between increasing age and occupational power, with one important exception: occupational power begins to dissipate after age 60 (Greenberg et al., 1979; Lauzen & Dozier, 2005). The same pattern holds true for leadership as well (Lauzen & Dozier, 2005). Furthermore, roughly four out of five characters age 65 and over were retired (Signorielli, 2004).

According to Greenberg et al. (1980), the majority of jobs were held by characters between the ages of 35 and 49. Of the elderly characters with a job, about two-thirds of these jobs were neutral in prestige (Signorielli, 2004). The characters that were the next most likely to have a neutral prestige job behind characters age 65 and over were those between the ages of 50 and 64. Thus, younger characters were found to hold the majority of prestigious jobs. There was, however, a major exception to this finding: white men between 50 and 64 were more likely than any other group on television to hold the jobs with the highest prestige (Signorielli, 2004).

### **Gender Differences**

Gender differences abound on television and nowhere are such differences more striking than among elderly characters, where older women are marginalized even more than older men. In every study that analyzed gender differences among older characters, it was found that older women were even more underrepresented than older men, often drastically so. The overall finding across studies and throughout decades is

that women are valued for their youth and are practically discarded once reaching older age.

This concept is illustrated by Gerbner et al. (1980), who analyzed male and female characters on television not just according to chronological age but also according to social age. Social age categories range from children to teens to young adult to settled adult to elderly. These age categories are not necessarily fixed by chronological age but are determined by the character's stage in life.

According to Gerbner et al. (1980), women travel through the social age categories much faster than men, and then begin to disappear as their usefulness as romantic partners declines with older age. Therefore, when chronological age was compared to social age, a considerably higher number of female characters (38%) than male characters (30%) chronologically in their teens were actually cast in the social age category of young adult. Furthermore, as women reached their twenties, 33% of the women were cast as settled adults compared to only 26% of the men. The pattern continues for characters between the ages of 55-64, with 33% of the females cast as elderly compared to only 22% of the men. Perhaps most striking, of the 28% of characters who were 65 and above and still portraying settled adults rather than elderly characters, all were men.

Not surprisingly, among characters in their early twenties, women outnumbered male characters and then dropped off to almost five times less than the number of male characters as chronological age increased (Gerbner et al., 1980). Furthermore, Signorielli (2004) determined that the representation of women on television between the ages of 50-64 was proportionally lower than in the actual U.S. population, while the

same under-representation did not exist for male characters. Thus, in the world of television, there are disproportionate numbers of younger women and older men, and more male characters overall (Gerbner et al., 1980; Greenberg et al., 1980; Lauzen & Dozier, 2005).

Beyond sheer under-representation of older women, older men and women were very differently portrayed in terms of occupational power. Generally speaking, older men tended to have greater occupational power and be more likely to assume leadership roles than older women. In fact, both middle-aged males and males age 60 and above were more likely than comparably aged females to play a leadership role (Lauzen & Dozier, 2005). Gender-related discrepancies in leadership capabilities were particularly substantial in characters aged 60 and above, with 30% of men and only 7% of women in leadership roles. When it comes to specific occupations, Signorielli (2004) found that about 51% of the men and 30% of the women aged 65 and above have an identified occupation. There are even greater discrepancies for characters between the ages of 50 and 64, with 81% of men and 51% of women having an identified occupation (Signorielli, 2004).

### **Ethnicity**

While elderly characters are under-represented on television regardless of race, there seem to be even fewer elderly minority characters on television than elderly white characters (Signorielli, 2004). As for occupation, elderly minority characters were found to be much less likely than elderly white characters (regardless of gender) to hold jobs that are high in prestige (Signorielli, 2004). Furthermore, minorities on television have been found to be disproportionately concentrated in the youngest age groups (Greenberg et al., 1979; Signorielli, 2004).

## **Elderly Target Audience**

It seems that portrayals of elderly characters vary according to the age of the target audience. For instance, Gerbner et al. (1980) found that an unfortunately high number of elderly characters were not treated with courtesy or held in high esteem in fictional television programming that didn't specifically target elderly viewers. In fact, 70% of elderly male characters and 80% of elderly female characters were not treated courteously or held in high esteem by the younger characters on such programming. Also, Lauzen and Dozier (2005) came to the conclusion that respect (defined as occupational power, leadership status, and achievement of goals) tends to increase for characters on television as they become older until around age 60 when respect begins to diminish.

However, on television shows in which the main characters were elderly and elderly viewers comprised a large percentage of the viewing audience, elderly characters were presented much more positively and held in much greater esteem. For example, Bell (1992) analyzed elderly main characters from the five most popular dramatic television shows among elderly viewers in 1989 ("Murder, She Wrote," "The Golden Girls," "Matlock," "Jake and the Fatman," and "In the Heat of the Night"). The overall finding was that the elderly main characters did not fit the typically negative stereotypes of elderly characters, but instead were successful, independent, powerful, active, highly respected, and attractive. Thus, it seems that elderly characters tend to be portrayed more negatively when the target audience is younger, and more positively when the target audience is elderly.

## **Portrayal of Elderly Characters in Advertising**

The portrayal of elderly characters generally becomes more positive in the context of advertising, which makes sense from a marketing standpoint. Advertisers clearly do not want to alienate elderly consumers. However, as in television programs, elderly characters are underrepresented in advertising relative to their numbers in the actual population. Overall, the content analyses of elderly characters in advertising revealed eight primary categories of interest: (1) Prevalence, (2) Product Category, (3) Behavioral/emotional/cognitive traits, (4) Physical features/ability, (5) Social context/physical setting/ad theme, (6) Role prominence, (7) Gender, and (8) Ethnicity.

### **Prevalence of Elderly Characters**

A consistent finding throughout the literature in past decades is that the elderly are underrepresented in advertising relative to their existence in the actual population. For example, Miller, Leyell, and Mazachek (2004) found only 69 commercials featuring at least one central character appearing to be age 60 or older from their sample of 1,454 television commercials spanning five decades from the 1950s to the 1990s. As for magazines, Miller et al. (1999) found just 163 out of 1,667 advertisements featuring people appearing to be age 55 and over in their sample of ads spanning the years 1956-1996. Most recently, a content analysis of commercials on network television by Lee, Carpenter, and Meyers (2007) found 286 commercials with characters appearing to be over the age of 55 out of a sample of 1,977 commercials from five networks in 2003, indicating that the under-representation of elderly characters in advertising still remains.

## **Product Category**

Content analyses of both television and magazine advertising reveal that elderly characters in advertisements are relegated to a limited number of product categories. Throughout the literature, there were only 10 different types of products or services with advertisements featuring elderly characters with any regularity in both television and magazines: Food products, Medications/medical services, Cars/vehicles, Financial/legal, Retail chains, Liquor/alcohol, Cigarettes, and Cameras/film (Atkins, Jenkins, & Perkins, 1991; Bramlett-Solomon & Subramanian, 1999; Gantz, Gartenberg, & Rainbow, 1980; Lee, Carpenter, & Meyers, 2007; Miller, Leyell, & Mazachek, 2004; Roy & Harwood, 1997; Swayne & Greco, 1987; Ursic, Ursic, & Ursic, 1986). It should be noted, however, that elderly characters still appeared quite infrequently in these product categories relative to other age groups. Product categories in which depictions of elderly characters were nonexistent or extremely minimal include Sports Gear, Office supplies, Vacation/travel, Computers/electronics, Apparel/fashion, and Cosmetics (Atkins et al., 1991; Gantz et al., 1980; Lee et al., 2007; Roy & Harwood, 1997).

The product category that most consistently featured elderly characters was food products (Lee et al., 2007; Swayne & Greco, 1987). According to Lee et al. (2007), nearly one-fourth of all television commercials featuring characters appearing over age 55 were for food products. Contrary to what one might expect, elderly characters were consistently found throughout studies to be featured in considerably more advertisements for food products than for medications/medical services. For instance, Miller et al. (2004) found over three times as many television commercials featuring characters appearing to be age 60 and above for food products (16 out of 69) as for medications/medical services (5 out of 69). Roy and Harwood (1997) also found a small

number of characters appearing to be age 60 and over in television commercials pertaining to Health Care (4 out of 83), while Swayne and Greco (1987) found there to be only one sixth the amount of television commercials for health products as there were for food products featuring characters appearing age 65 and older. Atkins et al. (1991), however, found that the “health and hygiene” product category, at 25.9%, was the second most popular product category to feature characters appearing to be age 50 and above in television commercials, behind food products at 42.5%.

### **Behavioral/Emotional/Cognitive Traits**

In order to gain an understanding of the attitudes of younger people toward the elderly, specific stereotypes of the elderly were identified and labeled over the course of multiple studies by grouping together various behavioral, emotional, and cognitive traits (Hummert, 1990; Hummert et al., 1994). Three of the most popular positive stereotypes to arise from these studies were the “Golden Ager,” “Perfect Grandparent,” and “John Wayne Conservative,” while negative stereotypes included “Despondent,” “Recluse,” “Shrew-curmudgeon,” “Mildly Impaired,” and “Severely Impaired.”

The Golden Ager stereotype is characterized by traits such as active, happy, competent, attractive, independent, and adventurous. Thus, the Golden Ager is essentially comprised of traits one would associate with a successful younger person. The Perfect Grandparent, while also positive, is devoid of any youthful connotations. Instead, the Perfect Grandparent consists of traits such as family-oriented, kindly, and wise. The John Wayne Conservative reflects old-fashioned values and includes traits such as conservatism, nostalgia, and patriotism (Hummert et al., 1994).

As for the negative stereotypes, Despondent individuals have traits such as loneliness, depression, and sadness, while traits of the Recluse stereotype include

being quiet and timid. The Shrew-Curmudgeon's traits include bitterness, jealousy, stubbornness, and complaining. Finally, the Mildly Impaired stereotype is characterized by such traits as tiredness, slowness, and forgetfulness, while the Severely Impaired is characterized by being feeble, inarticulate, incompetent, and senile (Hummert et al., 1994).

These stereotypes and the traits that comprise them have been used numerous times in subsequent studies to analyze the portrayal of older adults in advertising. Throughout the literature, the majority of studies based on these particular stereotypes have found positive stereotyping to prevail. Most recently, Lee et al. (2007) found that 97% of all spokespeople appearing over age 55 in television commercials fit into a positive stereotype. Specifically, the Golden Ager was found to be the most overwhelmingly prevalent stereotype, describing 91% of all older spokespeople. The rest of the positive stereotyping fell under the Perfect Grandparent stereotype, which accounted for 6% of all older spokespeople. Of the minimal negative stereotyping that was found, Severely Impaired was descriptive of 2% of all older spokespeople, while the remaining 1% fell into the Shrew-Curmudgeon stereotype.

Miller et al. (2004) also found that most of the elderly central characters (age 60+) in television commercials fit into a positive stereotype. Unlike previous studies, Miller et al. (2004) split the Golden Ager stereotype into two separate stereotypes: the "Adventurous Golden Ager" and the "Productive Golden Ager." The Adventurous Golden Ager stereotype focuses on the fun-loving aspect of the traditional Golden Ager stereotype, while the Productive Golden Ager focuses on traits pertaining to successfulness. The Adventurous Golden Ager stereotype accounted for 40.6% of the

elderly central characters while the Productive Golden Ager accounted for 30.7%. Perfect Grandparents accounted for 32.7% of the sample, while 19.8% were John Wayne Conservatives. There was very little negative stereotyping in this study, with 5.9% of the elderly central characters fitting the Mildly Impaired stereotype, 4% the Despondent stereotype, and 2% the Shrew/Curmudgeon (Miller et al., 2004).

Both Roy and Harwood (1997) and Swayne and Greco (1987) were interested in depictions of humor and the mental lucidity of characters appearing age 60 and above in television commercials. In their sample of commercials from 1985 network television, Swayne and Greco (1987) found that the majority of older characters were serious, with only 13% of older characters portrayed as comical/humorous. Nearly a decade later, however, in their sample of commercials from 1994 network television, Roy and Harwood (1997) found that the portrayal of the elderly was fairly evenly split between comical and serious characters with 51.6% portrayed as serious and 48.4% portrayed as comical. As for mental lucidity, Swayne and Greco (1987) found that 6.5% of the elderly characters in their sample of television commercials were portrayed as feeble/confused, whereas Roy and Harwood (1997) found 100% of the elderly characters in their sample of commercials to be lucid, with none portrayed as confused. In addition, Roy and Harwood (1997) investigated the happiness of elderly characters in television commercials, determining that the overwhelming majority was depicted as happy (93.7%), with only 6.3% depicted as sad.

### **Physical Ability/Presentation**

Roy and Harwood (1997) were interested in determining whether elderly adults were portrayed as active or inactive in television commercials. In accordance with their overall finding that older adults were predominantly portrayed in a positive light, it was

found that 100% of older adults were active. Furthermore, according to Atkins et al. (1991), it was common to subtract 15 years from the appearance of elderly characters in television commercials and make them look more physically fit and active than what would be considered representative of the general population of elderly adults.

Atkins et al. (1991) were also interested in the manner of dress of characters appearing age 50 and above in television commercials. They observed that the majority of older characters dressed in a manner that could be described as business casual (58.5%), such as in collared-shirts and slacks for the men, and blouses and skirts for the women. These characters tended to portray family members such as spouses or grandparents, as well as customers and background characters. As for dressy-attired characters, 24.7% of the older characters fit this description. For the men, business suits or white shirts and bowties represented dressy attire. Older women were considered dressy if they wore a formal dress. According to Atkins et al. (1991), all of the roles of dressy-attired older characters were prominent and authoritative. In addition, 12.3% of the older characters in television commercials wore some sort of uniform or costume that indicated their profession such as a mailman, police officer, and a plumber. Finally, 4.7% of the elderly characters could be found wearing sportswear such as jogging clothes, all of which were men (Atkins et al., 1991).

### **Social Context/Physical Setting/Ad theme**

It was found by Bramlett-Solomon and Subramanian (1999) that elderly characters appearing age 65 and older were much more likely to appear with younger characters in magazine advertisements than alone or with other elderly characters. In fact, over the seven years from 1990-1997 that were investigated in this study, there was found to be nearly triple the amount of advertisements pairing elderly characters with younger

characters than the amount of advertisements with only elderly people (73% compared to 27%). Similarly, Roy and Harwood (1997) found that 76.4% of elderly characters (age 60+) in television commercials appeared with characters of multiple age groups, while just 13% of elderly characters were shown with only other elderly characters and 10.6% were featured without any other characters. Furthermore, no elderly characters were shown with only children (Roy & Harwood, 1997).

Preceding Roy and Harwood's (1997) study, Swayne and Greco (1987) found nearly identical results, discovering that 75% of elderly characters (age 65+) appeared with characters of multiple age groups, with only 14% appearing by themselves, 8% appearing with just other elderly characters, and 4% appearing with children. Along these lines, Gantz et al. (1980) found support for the notion that elderly characters are not often used by themselves to sell products, discovering that there was an average of four characters per magazine advertisement when characters appearing age 65 and above were present, and an average of only 2.5 characters per ad when elderly characters were not present.

In addition to the social context, Roy and Harwood (1997) investigated the settings where characters appearing age 60 and above were portrayed in television commercials, finding that common settings were in a business or outdoors, rather than in the home as was expected. Similarly, Ursic et al. (1986) found that more than half of magazine advertisements featuring characters appearing age 60 and above depicted these characters in a work setting. Contrary to these findings, however, Swayne and Greco (1987) found that 56% of television commercials featuring characters appearing

age 65 and above were in a home setting while only 18% of commercials were set in a business, with the remaining commercials set either outdoors or some other setting.

In the same study in which Ursic et al. (1986) analyzed the physical settings of magazine ads featuring elderly characters, the theme of ads depicting elderly characters was also analyzed. Interestingly, the majority (53.5%) of ads featuring elderly characters had a work theme. After work-themed ads, 16% of ads featuring elderly characters had a recreational/social theme and 13.9% were family-themed. In addition, 13.2% of ads featuring elderly characters were classified as having “no theme.”

### **Role Prominence**

Swayne and Greco (1987) found that, out of their sample of television commercials featuring elderly characters appearing age 65 and above, only 31.6% of the commercials actually depicted the elderly characters in a major role, while 56% of the commercials depicted the elderly characters in minor roles and the remaining 12.3% of the commercials relegated the elderly characters to background roles. Somewhat more encouraging, however, is Swayne and Greco's (1987) finding that 65.2% of the elderly major and minor characters in television commercials were depicted as advisors while only 15.2% were information receivers. Similarly, Roy and Harwood (1997) found that 38.2% of characters appearing age 60 and above portrayed major roles. However, unlike Swayne and Greco (1987), Roy and Harwood (1997) found that only 19.5% of elderly characters were featured in minor roles while 52.8% depicted background roles. Furthermore, of those who were featured in either a major or a minor role, 45.3% were advisors and 12.5% were information receivers (Roy & Harwood, 1997). Therefore, while the majority of elderly characters in advertisements did not depict a major role, elderly characters were more likely to be advisors than the recipients of information.

In their analysis of the importance/status of characters age 50 and above in television commercials, Atkins et al. (1991) emphasized that men were used considerably more often as spokespeople than women, with 21.5% of older male characters used as spokespeople and only 4.6% of older female characters used as spokespeople. Clearly, however, whether male or female, Atkins et al. (1991) found that older characters were not frequently used as spokespeople in television commercials.

### **Gender**

Older male characters were featured in significantly greater numbers of advertisements than older female characters throughout the majority of studies. The most recent evidence finds that 82% of the characters in television commercials appearing over age 55 are men while only 38% are women (Lee et al., 2007). Similarly, Atkins et al. (1991) found that 71% of characters in television commercials who appeared to be age 50 and above were men and 29% were women. Atkins et al. (1991) further determined that older female characters could be found in only 35% of the commercials featuring older characters, with nearly one-third of these commercials also featuring older men.

As for magazines, Gantz et al. (1980) found that elderly men outnumbered elderly women in 74% of the advertisements featuring characters appearing age 65 and over. In addition, Ursic et al. (1986) found that, in every decade from 1950 to 1980, elderly men age 60 and above significantly outnumbered older women in magazine advertisements roughly nine to one. For example, in 1950, 72.2% of ads with elderly characters were found to contain only elderly men, while 11.1% contained only older women and 16.7% contained both older men and women. Likewise, in 1980, the percentages of advertisements containing only elderly men, only elderly women, and

both elderly men and women were 80.2%, 9.9%, and 9.9%, respectively. Furthermore, elderly women were found to be limited to home and recreational settings, while elderly men could also be found in work settings (Ursic et al., 1986).

Regarding differences in stereotyping between elderly male and female characters, Miller et al. (2004) found that elderly men were less likely than elderly women (age 60+) to be a Perfect Grandparent in television commercials, while elderly women became slightly more likely to be a Productive Golden Ager across the years of this study (1950s-1990s). Furthermore, while Swayne and Greco (1987) didn't find evidence of greater male representation among characters appearing age 65 and over in television commercials, they found that elderly men were more likely than elderly women to be major role advisors.

### **Ethnicity**

Ethnic representation has been found to be disproportionate among elderly characters in advertising. Lee et al. (2007) found that the vast majority of characters that appeared over age 55 in television commercials were Caucasian (86%), followed by African-Americans (13%), and "Other" (12%). Similarly, Roy and Harwood (1997) found only two out of 246 elderly characters from their sample of television commercials to be African-American, with the rest being Caucasian and no other ethnicities represented.

Roy and Harwood (1997) noted that the 1994 U.S. Census indicated a proportion of one to ten for African-American elderly adults to Caucasian elderly adults, whereas Roy and Harwood's (1997) findings within television advertising indicated a grossly disproportionate one to 123 ratio. The findings of Atkins et al. (1991) followed a similar pattern, with 89.2% of their sample of characters who appeared age 50 and above in television commercials being Caucasian and 10.8% being African-American.

Furthermore, just as in Roy and Harwood's (1997) study, no other ethnicities were represented (Atkins et al., 1991).

### **Review of DTCA Content Analyses**

Few studies have focused their analyses of DTCA on specifics such as the portrayal of particular demographic characteristics in the models/characters. Due to the unique characteristics of this form of advertising, a review of the existing content analyses pertaining to DTCA as a whole is useful as a guide toward a focused analysis of the elderly characters portrayed in DTCA. Overall, the existing content analyses of DTCA revealed seven primary categories of interest: (1) Identification of Condition, (2) Medical Information, (3) Presentation/Structure of Ads, (4) Selling Points and Sales Pitches, (5) Message Appeal, (6) Models/Characters, and (7) Target Audience.

#### **Identification of Condition**

The content analyses showed that prescription medications for a wide range of medical conditions are advertised directly to consumers. Frequently represented conditions include psychiatric/neurological disorders, OB/GYN conditions, allergies, dermatological conditions, and cardiovascular disease (Bell et al. 2000; Cline & Young, 2004; Macias & Lewis, 2004). According to Bell et al. (2000), the medical conditions featured in DTC ads can be categorized as either commonly occurring chronic conditions (e.g., allergies), conditions not typically recognized by consumers as treatable (e.g., toenail fungus), conditions often undertreated (e.g., depression), newly treatable conditions (e.g., erectile dysfunction), and conditions that are life-threatening (e.g., diabetes).

## **Medical Information**

All informational content in DTC ads pertain either to the condition or the treatment (Bell et al., 2000). Specifically, there are three types of DTC advertisements: (1) health seeking ads; (2) reminder ads; and (3) product-specific ads (Wilkes, Bell, & Kravitz, 2000). Health seeking ads consist of information about a medical condition with no mention of a particular drug, whereas reminder ads mention a specific drug but do not mention the condition it is designed to treat. Also, reminder ads leave out information concerning the effectiveness, use, and safety of the drug (Wilkes et al., 2000). Product-specific ads, on the other hand, mention a specific drug and the condition it is intended to treat, as well as provide information about the effectiveness, use, and safety of the drug (Wilkes et al., 2000). According to Bell et al. (2000), treatment information within product-specific ads is divided into benefits and risks, with ads providing information about symptoms the drug is designed to alleviate as well as side effects (as required by the FDA). Overall, product-specific ads are by far the most popular (Wilkes et al., 2000), and what follows is a review of the literature on the informational content of product-specific ads.

Surprisingly, in their investigation of the informative value of DTC prints ads, Bell et al. (2000) found that condition information such as prevalence and misconceptions was present in a considerably low proportion of ads. Furthermore, the presentation of treatment information such as treatment duration and success rate was minimally represented. The most frequently given treatment information in the study conducted by Bell et al. (2000) had to do with mechanism of action of the drug, which was still only found in 36% of the ads. Similarly, in their content analysis of DTC television ads, Kaphingst et al. (2004) found that a small proportion of ads included effectiveness

information. These results coincide with the findings of Woloshin et al. (2001), who determined that benefits are usually described vaguely and given in qualitative terms instead of with quantitative clinical data. In addition, Shah, Holmes, and Desselle (2003) found that nearly 50% of all DTC ads in their study contained unreferenced claims.

Macias and Lewis' (2004) content analysis of DTC Web sites is an exception to these studies, however. Unlike Bell et al.'s (2000) analysis of print ads, it was found that DTC Web sites had high rates of detailed reporting of both condition and treatment information. The implication of these findings is that the Internet is more conducive to providing informational content.

Other features of DTC ads have to do with additional information sources, including listing sources of additional information and offering to send additional information. It was found that DTC television ads tend to list, as well as encourage consumers to seek out, additional sources of information (Kaphingst et al., 2004). The most commonly listed additional sources of information are Web sites, toll-free numbers, and print ads, while consumers are usually encouraged to seek additional information from physicians (Kaphingst et al., 2004). Occasionally, offers to send additional information in the form of videos and printed materials can be found in DTC print ads and Web sites (Bell et al., 2000; Macias & Lewis, 2004).

### **Presentation/Structure of Ads**

There has been a considerable amount of observation regarding the layout, design, length, use of language, and presentation of information in DTC ads. For instance, it has been observed that risks are presented differently than benefits in DTC ads. In their content analysis of DTC television ads, Kaphingst et al. (2004) found that .78 risk facts were presented per second compared to .54 benefit facts per second,

which means that more processing time is available for benefit information. Also, because all images in the ads were either positive or neutral, there was no congruency between the delivery of risk facts and the visuals on the screen. Sumpradit, Ascione, and Bagozzi (2003) also found a lack of a visual-verbal match during the presentation of risks in DTC television ads, while there were either direct or partial matches during the presentation of benefits. Furthermore, it was found that risk information was usually presented in one continuous segment in television ads, unlike benefit information, which was spread out over the whole ad (Kaphingst et al., 2004). According to Frosch et al. (2007), side effect information always appeared towards the end of the ad but the closing statements were reserved for a message promoting the drug.

Kaphingst et al. (2004) investigated a number of other features pertaining to DTC television ads including use of story, use of language, presentation of text, information source, and ad length. They were able to ascertain that 65% of ads used a dramatization or testimonial. Also, most television ads used a combination of medical and lay terminology, and had some print that was difficult to read. The most common television ad length was 60 seconds.

### **Selling Points and Sales Pitches**

DTC ads include various selling points. Selling points often found in DTC ads include Effectiveness, Ease of use, Social-psychological enhancements, and Safety (Bell et al., 2000; Frosch et al., 2007, Macias & Lewis, 2004). On both the Web and in print, messages referring to the drugs' effectiveness were by far the most commonly used. In addition, messages referring to the novelty and popularity of the drugs were used, as well as praise for the manufacturer (Frosch et al., 2007; Shah et al., 2003).

## **Message Appeal**

It is a common strategy in DTC ads to use some type of emotional appeal rather than quantify benefits (Woloshin et al., 2001). As such, numerous message appeals have been identified in DTC ads. Among them, distinctions have been made between rational and emotional appeals (Main et al., 2004), as well as between informational and transformational appeals (Roth, 2003). In addition, Sumpradit et al. (2003) investigated the use of cultural-oriented appeals within DTC ads.

Rational appeals refer to factual information that is presented about the functionality of the product. Emotional appeals, however, pertain to social and psychological needs and, as the name implies, are designed to elicit an emotional response. Emotional appeals can be either positive or negative. Some examples of positive emotional appeals commonly used in DTC ads are humor and sex (Frosch et al., 2007; Main et al., 2004; Pinto, 2000). Positive emotional appeals can also focus on relationships (Pinto, 2000), nostalgia (Frosch et al., 2007; Main et al., 2004), prestige (Shah et al., 2003), and the need for normalcy (Woloshin et al., 2001). Fear and guilt were the most commonly observed negative emotional appeals (Main et al., 2004; Pinto, 2000) in DTC ads. According to Frosch et al. (2007), 96% of DTC television ads made use of an emotional appeal.

It was determined that both the visual and the headline were more likely to feature an emotional appeal than a rational appeal in DTC print ads (Main et al., 2004). Furthermore, Pinto (2000) observed that different types of emotional appeals tend to be constructed differently with regard to their usage of visuals and text. For example, fear and guilt appeals were either entirely textual or created with a combination of text and visuals, but never entirely visual. Sex appeals, however, were always only visual, while

humor appeals could be created with a combination of text and visuals or with one or the other. A pattern for drug class and type of emotional appeals was not established.

Roth (2003) categorized message appeals in DTC print ads as informational or transformational, with informational messages defined as factual messages that are clearly relevant to the product and transformational messages defined as messages that link psychological characteristics with the product that are not clearly relevant to the product. According to Roth (2003), informational appeals in the context of DTCA are negative in nature and generally consist of problem solution and problem prevention, while transformational appeals are positive and commonly take the form of happiness and social-approval. Interestingly, Roth (2003) found that informational appeals were over four times more likely to be used than transformational appeals, indicating a greater desire on the part of pharmaceutical marketers to link their products with the notion of a problem solution rather than linking associations of the drugs with the desired end states of happiness and social-approval.

### **Models/Characters**

In general, for both television and magazines, characters in DTC advertising were observed to be depicted as healthy and either physically or socially active (Cline & Young, 2004; Frosch et al., 2007). However, demographic characteristics of the models depicted in DTC advertisements have been analyzed primarily in the context of magazines, and with a focus exclusively on gender, ethnicity, and age. With regard to gender, it was found that females were depicted in roughly 10% more DTC magazine ads than males (Cline and Young, 2004; Main et al, 2004). Similarly, it was determined that depictions of females outnumbered depictions of males by about 10% in DTC Web sites (Macias and Lewis, 2004). As for trends pertaining to specific conditions, Cline and

Young (2004) found that females dominated in DTC magazine ads for psychiatric-neurological conditions (71.4%), cancer (75.0%), and OB/GYN conditions (89.5%), while men dominated in ads for cardiovascular (66.7%) and gastrointestinal-nutritional conditions (66.7%).

As for ethnicity, roughly three-fourths of DTC magazine ads were found to feature Caucasian models (Cline & Young, 2004; Main et al., 2004). In addition, Cline and Young (2004) determined that African Americans were featured in 14.2% of ads, while Hispanics were featured in only 1.1% of ads and Asians were found in a minimal 0.5% of ads. The conditions for which African Americans were featured with any prevalence were for HIV/AIDS and diabetes, while HIV/AIDS was the only condition for which Hispanics appeared without the presence of other ethnic groups (Cline & Young, 2004).

The majority of DTC magazine advertisements were found to exclusively feature characters over 18 (Main et al., 2004) but no older than middle age (Cline & Young, 2004). Overall, a small number of DTC magazine advertisements featuring either just children (3.8%) or just elderly characters (10.4%) were found (Cline & Young, 2004). When children were featured, it tended to be in ads for treatments of allergies and respiratory conditions, while elderly characters were found most frequently in ads for treatments of gastrointestinal-nutritional and urological conditions, as well as treatments for Alzheimer's. Also, a combination of older characters and children tended to be found in ads for treatments of diabetes and cardiovascular conditions. While combinations of people from all age groups could be found, generational combinations were found in only 26.2% of ads (Cline & Young, 2004).

Another area of investigation regarding characters in DTC magazine advertisements entails social context. According to Cline and Young (2004), family and romantic contexts were the most frequently depicted, followed by recreational and work. Most of the ads (61.0%), however, featured a solitary character (Cline & Young, 2004).

### **Target Audience**

According to Bell et al. (2000), the vast majority of DTC ads target people with the conditions the drugs are designed to treat (98%), with the exceptions being DTC ads targeting parents, spouses, and adult children of those afflicted by the condition. Bell et al. (2000) determined that the majority of ads do not target a particular gender (68%). However, of the 32% of ads that were found to target a particular gender, it was found that considerably more ads were directed specifically at women (23%) than specifically at men (9%). Similarly, Shah et al. (2003) counted the number of DTC ads from a sample of magazines spanning the years 1995-2000 that was evenly divided between male readership, female readership, and readership that was gender nonspecific. Out of the total of 359 DTC ads that were collected, the overwhelming majority of them (238) were from magazines with female readership, while only 36 DTC ads were found in magazines with male readership. The remaining 85 DTC ads were from magazines that were gender nonspecific. Thus, women seem to be more frequent targets of DTC advertising than men.

### **Research Questions**

Based on the preceding review of literature, in an attempt to shed light on direct-to-consumer advertising targeting elderly consumers, my study investigated the following research questions:

- **RQ1:** What is the prevalence of older versus younger characters in magazine DTC ads targeting older readers?
- **RQ2:** What is the prevalence of male versus female characters in magazine DTC ads targeting older readers?
- **RQ3:** What is the prevalence of Caucasian characters versus characters belonging to other ethnic groups in magazine DTC ads targeting older readers?
- **RQ4:** How are demographic characteristics such as age, gender, and ethnicity related with one another among central characters appearing in magazine DTC ads targeting older readers?
- **RQ5:** Are there differences between age categories, gender, and ethnicities among central characters portrayed in DTCA in terms of character's occupational category, health conditions advertised, overall tone of the ad, overall theme of the ad, and physical settings in which the character is portrayed?
- **RQ6:** What kinds of stereotypes are portrayed in central characters appearing in magazine DTC ads targeting older readers?
- **RQ7:** Are there differences in stereotypical portrayals among central characters in magazine DTC ads targeting older readers in terms of character's age, character's gender, character's ethnicity, character's occupational category, health conditions advertised, overall tone of the ad, overall theme of the ad, and physical settings in which the character is portrayed?

## CHAPTER 3 METHODOLOGY

This study's research questions were examined via a content analysis. A content analysis is an inferential process that is governed by rules stemming from the guiding theories and interests of the researcher (Weber, 1990). Given the exploratory nature of my study, the ability to draw inferences about the portrayal of characters from the content of DTCA makes a content analysis an ideal vehicle of investigation. According to Krippendorff (2004), content analyses allow the researcher to make inferences from a variety of data sources including verbal, pictorial, and symbolic sources. Indeed, all of these sources can be found within magazine advertising and were drawn upon for this study.

### **Sampling Design**

Magazines were the chosen medium for this study due to the availability of genre-specific magazines that either specifically target or, at the very least, appeal to elderly readers, resulting in a substantial target market of elderly consumers for these publications. As noted previously, the presence of elderly characters in magazine advertisements seems to be related to the magazine's target audience. For example, Gantz et al. (1980) found a smaller number of ads with elderly characters in magazines that appeal to younger readers compared to magazines that appeal to older readers.

Therefore, the primary criterion for magazine selection was percentage of Head of Household subscribers age 50+ according to MRI's mediamark reporter as of Spring 2006. Titles with the highest percentages were checked for availability and, finally, presence of DTCA. Thus, the magazines with the highest percentages of Head of Household subscribers age 50+ among available titles containing DTCA were *AARP the*

*Magazine* (89.7%), *Saturday Evening Post* (72.4%), *Prevention* (59.1%), *Reader's Digest* (58.5%), and *Better Homes & Gardens* (49.8%).

*AARP the Magazine*, a bimonthly publication of the American Association of Retired Persons, was selected as the benchmark magazine because it is sent to every member of AARP (one of the United States' largest organizations), and has the highest percentage of Head of Household subscribers age 50+ among all magazines (MRI's mediamark reporter, 2006). The next magazine selected for sampling, *The Saturday Evening Post*, is also a general interest magazine catering to older readers, and is ranked fourth on MRI's mediamark reporter (2006) for percentage of Head of Household subscribers age 50+.

While *AARP the Magazine* and *The Saturday Evening Post* both specifically target elderly readers, the other three titles cater to a broader age range (while still appealing to elderly readers) and each belongs to a different genre. Specifically, *Better Homes & Gardens* covers homes, cooking, gardening, decorating, and entertaining; *Prevention* focuses on health, workouts, beauty, and nutrition; and *Reader's Digest* is a general interest family magazine. Thus, ads found within these magazines are less likely to be created just for older readers, and the likelihood for a variety of character ages within DTCA increases. This was desirable so that portrayals of older characters could be compared to portrayals of younger characters. In addition, the diversity of genre categories provided by these magazines made it possible to account for potential genre-related discrepancies in DTCA. All five magazines, therefore, were selected for sampling.

The sampling period that was selected was from 1998 through 2007 (the most recent year). The year 1998 was chosen as the starting point because it is the first year in which DTCA appeared with frequency. Because *AARP the Magazine* and *The Saturday Evening Post* are both bimonthly magazines, they each released 60 issues across this ten-year period. It was decided, then, that all issues of *AARP the Magazine* and *The Saturday Evening Post* would be retained for sampling and, therefore, 60 issues (six issues per year across the 10 years) would be the total number selected for sampling from each of the other magazines.

The selection of ads began with *AARP the Magazine*, and ads chosen for analysis consisted of prescription drug ads featuring at least one character of any age that is a person (as opposed to animals, cartoons, etc.). There was no age stipulation for characters appearing in each ad so that portrayals of younger characters could be compared to portrayals of older characters throughout DTCA. Thus, every non-repeat DTC ad featuring people was collected from all 60 issues of *AARP the Magazine* before proceeding to the other four magazines, resulting in a total of 73 unique ads. It should be noted, however, that this publication was known as “*Modern Maturity*” until 2002, and all ads obtained from the years 1998-2002 were sampled from issues of *Modern Maturity*. Because *AARP the Magazine* was used as a benchmark for ad selection, the target number of ads for the other four magazines was between 70 and 85 ads.

The same process of selecting every non-repeat ad featuring people was repeated for *The Saturday Evening Post*, which resulted in 83 unique DTC ads. Thus, a comparable number of ads were found within both *AARP the Magazine* and *The Saturday Evening Post*. As for the other three magazines (*Better Homes & Gardens*,

*Prevention*, and *Reader's Digest*), all of which are monthly publications, issues selected for sampling were from the same randomly chosen six months (February, March, May, August, September, and December) across the 10-year time period. Once the 60 issues from each of these magazines were obtained, the same process of obtaining every non-repeat DTC ad featuring people was employed. Each of these magazines, however, yielded nearly three times more unique ads than the targeted amount.

Due to the extensive amount of DTCA throughout these three magazine titles, a random sampling method was needed to obtain the targeted 70-85 ads from each of them. It was decided, therefore, that every third ad would be selected within each issue. This process yielded 75 ads from *Better Homes & Gardens*, 73 from *Prevention*, and 72 from *Reader's Digest*. When added to the 73 ads obtained from *AARP the Magazine* and the 83 obtained from *The Saturday Evening Post*, the overall total of ads garnered from all five magazines was 376 ads. Among these 376 ads, there were 103 repeat ads across magazines. Because the ad itself and not the magazine was the unit of analysis for my study, all repeat ads across magazines were eliminated, resulting in a final sample of 273 unique ads across the five magazines.

### **Variables**

The literature on DTCA, as well as the portrayal of elderly characters on television programming and general advertising, shaped the code scheme by providing variables and an explanation for their analysis. The code scheme resulted in 65 coding items, while the code book provided detailed operational definitions for the coding items.

First, the intended Health Condition was determined. Next, each ad was assessed according to the following three ad variables: Tone, Setting, and Theme. After coding

the aforementioned variables within each ad, the unit of analysis switched from the ad to the character.

Once the characters within the ad became the units of analysis, the total number of major characters appearing in each ad was tallied. Major characters were defined as characters not depicted merely as a backdrop (as opposed to being a meaningless face in a crowd). Each major character was then coded according to the following four variables: Age, Gender, Ethnicity, and Occupational category. Next, all major characters were coded as either Central or Supporting. Finally, each central character was analyzed for the presence of 49 character traits. Despite my study's particular interest in the elderly, all characters were analyzed, regardless of age, so that the portrayal of younger characters could be compared with the portrayal of older characters.

### **Health Condition**

The health condition categories were borrowed from previous DTCA literature (Bell et al. 2000; Cline & Young, 2004; Macias & Lewis, 2004) and, in order to be as comprehensive as possible, the decision was made to add seven additional health condition categories: (1) Respiratory conditions, (2) Urological conditions, (3) Diabetes, (4) Musculoskeletal disorders, (5) Sleep disorders, (6) Cancer, and (7) Gastrointestinal conditions. Therefore, each ad was coded as pertaining to one of 15 condition categories: (1) Psychiatric/neurological disorders, (2) OB/GYN conditions, (3) Allergies, (4) Respiratory conditions, (5) Dermatological conditions, (6) HIV/AIDs, (7) Cardiovascular conditions, (8) Urological conditions, (9) Infectious (non-HIV) diseases, (10) Diabetes, (11) Musculoskeletal disorders, (12) Sleep disorders, (13) Cancer, (14) Gastrointestinal conditions, and (15) Other.

## **Tone**

While the study of message appeals has been covered extensively in research pertaining to DTCA (Main et al., 2004; Pinto, 2000; Shah et al., 2003; Woloshin et al., 2001), the focus of this study does not encompass individual message appeals. Rather than conducting an in-depth analysis of specific message appeals appearing in each ad, it was decided to condense all the message appeals (positive, negative, and informational) from the DTCA literature into the overall tone of each advertisement. An attempt to create a comprehensive summation of message appeals found in DTCA yielded four tones: Empowering, Foreboding, Comedic, and Neutral. Thus, the coding options for the overall tone of the ad consisted of Empowering, Foreboding, Comedic, and Other.

## **Setting**

Each ad was coded as having one of six settings: Home, Outdoors, Office/business, Hospital/care-taking, No setting, and Other. The home, outdoors, and office/business settings were borrowed from prior research (Roy & Harwood, 1997; Swayne & Greco, 1987; and Ursic et al., 1986) in which the portrayal of elderly characters in general advertising (not specifically DTCA) was analyzed. The addition of the hospital/care-taking setting was deemed necessary due to its relevance to the medicinal/health-related nature of DTCA, and the “no setting” category was added to represent ads in which characters are presented amidst a blank background.

## **Theme**

For each ad, there were seven theme options: Recreational/social, Family, Work, Romantic/sexual, Healthcare, Rest/sleep, No theme, and Other. The theme categories were borrowed from Ursic et al. (1986), with the exception of the romantic/sexual,

healthcare, and rest/sleep themes. The romantic/sexual theme was added with medicines for sexual dysfunctions and sexually transmitted diseases in mind (products which are prominent within the lexicon of DTCA). This provided a more clear-cut choice for such instances in which it would be difficult to distinguish between a recreational/social theme and a family theme (e.g., when sexual partners were husband and wife). Similarly, the rest/sleep theme was added with medicines for sleep disorders in mind.

With regard to the Healthcare theme, it was added as a theme option due to its relevance to the medicinal/health-related nature of DTCA (just as the hospital/care-taking category was added to the setting variable). Another distinction between the theme categories for the present study and those employed by Ursic et al. (1986) is that their White Collar and Blue Collar themes were combined into one theme: Work. For the present study, Occupation is a separate variable and is explored more thoroughly as it pertains to individual characters.

### **Character's Age**

A character's age is a crucial variable for the present study, and there were varying approaches to defining age categories in previous literature concerning the elderly in television programming and advertising (both television and print). Depending on the interests of the researcher, age categories were either all-encompassing (e.g., Gerbner et al., 1980; Greenberg et al., 1979; Greenberg et al., 1980; Lauzen & Dozier, 2005; and Signorielli, 2004) or focused solely on older individuals (e.g., Atkins et al., 1990; Bramlett-Solomon & Subramanian, 1999; Gantz et al., 1980; Miller et al., 2004; Peterson & Ross, 1997; Roy & Harwood, 1997; Swayne & Greco, 1987; and Ursic et al., 1986). One method for determining all-encompassing age categories (as used by

Greenberg et al., 1979 and Greenberg et al., 1980) was to divide age categories according to U.S. census age ranges: ages 0-12, 13-19, 20-34, 35-49, 50-64, and 65+. Thus, comparisons could be made between older and younger characters.

As for studies focusing solely on older characters, one particular example, Miller et al. (2004), divided elderly characters into two groups: young-elderly (ages 60-74) and old-elderly (ages 75 and greater). This provided a more in-depth analysis of older characters, allowing for distinctions to be made between characters at different ends of the elderly spectrum.

The present research took into account these varied approaches from prior research by using all-encompassing age groups (i.e. characters of any age will fit into a specific category rather than analyzing only elderly characters) while also using two elderly age categories like Miller et al. (2004) in order to make comparisons between characters at opposite ends of the elderly spectrum. Thus, it was determined that age categories would be divided into Child (ages 17 and under), Adult (ages 18-49), and two elderly categories: Younger Elderly (ages 50-64) and Older Elderly (ages 65+). This way, comparisons could be made between younger and older characters, while placing particular emphasis on exploring the portrayals of elderly characters. The age ranges for the two elderly categories mirrored the age ranges for two of the U.S. census age categories, and age 50 was used as a starting point for elderly categorization because it coincides with the onset of AARP membership.

In the present study a character was deemed older elderly if there was a mention of age 65 or older, or if the character possessed any combination of the following traits: gray hair, pervasive wrinkling of the hands and/or face, dependence on an ambulatory

aid, a retired reference, and/or a grandparent reference. These specific criteria used to identify older elderly characters in this study (or slight variations of them) are commonly used in previous studies to identify all elderly characters (e.g., Bramlett-Solomon & Subramanian, 1999; Gantz et al., 1980; Miller et al., 2004; Roy and Harwood, 1997; Swayne and Greco, 1987). There were, however, discrepancies throughout the literature in the starting age – generally varying from either age 60 or 65.

By using the set of criteria generally used to identify all elderly characters in prior research as the criteria specific to only older elderly characters for this study, it became necessary to develop a set of criteria specific to younger elderly characters. Thus, characters were deemed younger elderly if there was a direct mention of age 50-64, gray/graying hair, and/or hints of wrinkling of the face and hands. It was possible for a character to be coded as younger elderly rather than older elderly if the character's hair was completely gray so long as there were merely hints of wrinkling of the face and hands rather than extensive wrinkling. As for the adult category, a character was coded as an adult if there was a direct mention of ages 18-49, or if the character appeared to be physically mature and devoid of the physical signs of aging (e.g. wrinkling, gray/graying hair). A Character was coded as a child if there was a direct mention of age 17 and under, a reference to being in school up until high school, or if the character appeared to be pre-pubescent.

### **Character's Gender/Ethnicity**

Next, each character's gender was coded (Male or Female), followed by ethnicity. The coding for the ethnicity variable was based on the categories used by Signorielli (2004), which consisted of White, Black, American Indian, Asian, Hispanic, and Other. In the present study, categories of ethnicity were comprised of Caucasian, African

American, Hispanic, Asian, and Other. The American Indian category was not included, however, due to the infrequency of the mass media's portrayals of characters from this ethnic group.

### **Character's Occupational Category**

Like the categories of ethnicity, the occupational categories used in the present study were also based on categories used by Signorielli (2004). Signorielli's Job Type categories consisted of Professional (doctor, lawyer, teacher, entertainer), White Collar (managerial, secretarial, clerical), Blue Collar (service, repair, labor), Law Enforcement, Military, Criminal, Not Working, and Other. For the present study, the Occupational Categories consisted of Professional, White Collar, Blue Collar, Law Enforcement/Rescue Worker, Not Working, and Other. Unlike Signorielli, the Military and Criminal categories were left off, and the Law Enforcement category was expanded to include Rescue Workers (e.g., firemen).

### **Character's Role**

Central characters were defined as characters upon which the ad centered around. Supporting characters, on the other hand, were defined as characters existing simply to enhance the portrayal of a central character by illuminating the types of relationships in which the central characters are engaged, and to further the narrative, but not be any point of emphasis. These definitions closely parallel those developed by Swayne and Greco (1987), and later used by Roy and Harwood (1997), in their analyses of the elderly in television commercials. Each ad could have any number of central characters and any number of supporting characters. If a character was identified as a supporting character, no further analysis was conducted for that

character. Central characters, however, were further analyzed in terms of whether or not they displayed certain character traits used in assessing stereotypical portrayals.

### **Character Traits**

Central characters were analyzed for the presence of 49 character traits that were either taken directly from or based on a list of 97 traits developed by Hummert et al. (1994) to identify stereotypes of the elderly held by young, middle-aged, and elderly adults. Rather than using the entire list of 97 traits, it was determined that some of the traits on the original list of 97 seemed better suited for an audio-visual medium than print ads, or for an ongoing story rather than a single page—Inarticulate, Well-traveled, Witty, Neglected, Complaining, Selfish, Prejudiced and Demanding, for instance—and were eliminated. Others were deemed redundant and too similar to other traits, and were either dropped or collapsed into broader terms (e.g., “Bitter” became “Angry,” and “Senile” was dropped because of its similarity to two of the retained original traits: Forgetful and Incompetent). Traits considered too subjective, such as Capable, Inflexible, Jealous, and Interesting were also dropped.

In total, seven new traits specific to the present study (Angry, Comical, Expert, Incapacitated, Nurturing, Strong, and Unsociable) are either reworded versions of a single trait or a combination of similar traits from the list created by Hummert et al. (1994). In addition, two traits are entirely unique to this study: Altruistic and Malicious. Because none of the original 97 traits captured the qualities of altruism and maliciousness, both of these traits (Altruistic and Malicious) were added to enhance the ability to fully describe character portrayals within DTCA. Thus, the list created by Hummert et al. (1994) served as a starting point when developing the finalized list of 49

traits that were used in the present study, with forty of the 49 traits taken directly from Hummert et al. (1994).

The finalized list of character traits that were used to analyze central characters in the present study, therefore, consists of the following 49 traits: Active, Adventurous, Afraid, Alert, Altruistic, Angry, Comical, Curious, Dependent, Depressed, Expert, Family-oriented, Forgetful, Fragile, Frustrated, Future-oriented, Happy, Health-conscious, Healthy, Hypochondriac, Incapacitated, Incompetent, Lively, Lonely, Malicious, Mellow, Naïve, Nostalgic, Nurturing, Old-fashioned, Patriotic, Poor, Productive, Reminiscent, Retired, Sad, Sedentary, Sexual, Sick, Skilled, Sociable, Strong, Successful, Tired, Unsociable, Wary, Wealthy, Well-informed, and Worried.

### **Coding Procedure**

Coding took place at the Main Library in Cincinnati, Ohio (the downtown branch and hub of the public library system of Cincinnati and Hamilton County) because it offered an extensive selection of targeted magazine titles. There were two coders, one of whom was the researcher. While the researcher coded all 273 ads used for data analysis, the second coder coded a 15% overlap of the 273 ads in order to calculate intercoder reliability. Coder training entailed studying the code book, analyzing sample ads, and resolving coding disagreements. In order to proceed to the main sample, it was required that a pre-test with a minimum intercoder reliability of 80% be conducted. The coding information from each ad was derived from the image and the copy.

An outside coder was selected and educated with directions to properly fill out coding sheets relevant to the study. A recent recipient of a Masters in Mass Communication degree, the coder understood the basic protocol for research studies and content analyses, but had no prior knowledge specific to the study. The coder was

randomly assigned 40 advertisements from the 273-ad sample, which was nearly 15% of the total sample – well over the 10% overlap required by Neuendorf (2002) for valid intercoder reliability calculations.

The initial coder training session centered on the study’s purpose, theoretical background, the code sheet and the codebook. During the coder’s initial introduction to the study, both the researcher and coder independently coded the same three ads at a time from periodicals not used in the study’s sampling procedure, and afterwards, compared results. Coding discrepancies were discussed and agreed upon, or else changes were made to coding items. Specific questions arose over options for health conditions and themes of ads. The researcher then restructured the code sheet and codebook, adding an additional theme category, Rest/Sleep, in order to accommodate the plethora of ads for sleep aids, and also inserting “missing” health conditions, particularly Diabetes, Musculoskeletal diseases, Sleep disorders, Cancer and Gastrointestinal ailments. This entire process continued over the course of a week until both coders consistently yielded congruent responses. Once this was achieved, the researcher underwent data selection for a complete pre-test, which entailed 31 ads from four magazine titles not used for the main sample. Intercoder reliability for the pre-test was found to be 97%, making it possible to proceed to the main sample.

### **Intercoder Reliability**

For both the pre-test and the main sample, Intercoder reliability was assessed using Holsti’s (1969) formula:

$$\text{Reliability} = \frac{2M}{N1 + N2}$$

M corresponds to the number of identical responses given by the coders; N1 and N2 correspond to the number of each coder's respective responses. For the main sample, Inter-coder reliability was very high at 97.93%. The calculation of inter-coder reliability for the main sample of the present study was as follows:  $2(2599) / (2654 + 2654) = 5198 / 5308 = 97.93\%$ .

## CHAPTER 4 RESULTS

Within the 273 ads analyzed in this study, there were 433 characters (332 central and 101 supporting). The first research question of this study concerns the prevalence of older versus younger characters. Since a character's age is such an important variable to this study, an exploration of the prevalence of age categories among characters is a crucial starting point. As such, out of all 433 characters (Table 4-1), 42.3% were older characters (Younger Elderly or Older Elderly) and 57.7% were younger characters (Child or Adult), with roughly 15% more younger characters. The fringe categories (Child and Older Elderly, 19.9% and 14.8%, respectively) were the least prevalent, while the majority of characters fell into the Adult (37.9%) and Younger Elderly (27.5%) categories.

### **Prevalence of Older Versus Younger Characters: Central and Supporting**

Among the 332 central characters, 49.1% were older characters and 50.9% were younger characters (Table 4-2). Thus, the number of older characters compared to younger characters was nearly identical. Looking at specific age categories revealed that adult characters were the most heavily represented (42.2%), followed by younger elderly characters (31.9%). Between the two least prevalent age categories, older elderly characters outnumbered child characters nearly 2-to-1 with 17.2% compared to 8.7%.

Among the 101 supporting characters, 19.8% were older characters and 80.2% were younger characters (Table 4-3). Thus, the overwhelming majority of supporting characters fell within the younger age categories. The age categories in order of most represented to least represented were (1) Child (56.4%); (2) Adult (23.8%); (3) Younger

elderly (12.9%); and (4) Older elderly (6.9%). This pattern indicates that the age of supporting characters is skewed toward the youngest age categories (particularly the Child category), and that supporting characters rarely fall into the older age categories.

### **Character's Age and Role**

After running frequencies for age groups in both central and supporting roles, a Chi-square test was conducted to determine if there was a significant relationship between a character's age and role. It was found that the relationship between a character's age and role was indeed significant,  $X^2(3, N = 433) = 111.37, p < .00$  (Table 4-4). The Child category had a considerably larger proportion of supporting characters than the other age categories, and was the only age category with more supporting characters (66.3%) than central characters (20.7%). Therefore, while the vast majority of characters from the other three age categories were central characters (Adult=85.4%, Younger Elderly=89.1%, and Older Elderly=89.1%), the Child category was most commonly associated with supporting characters.

### **Prevalence of Male Versus Female Characters**

Out of the 433 characters found in the sample of 273 ads, three characters were of unknown gender due to their very young age (infants). Thus, these three characters were dropped from analysis for this research question, resulting in a sample of 430 characters from 271 ads. Because these characters were supporting characters, the total number of supporting characters was reduced from 101 to 98, while the total number of central characters remained unchanged at 332.

Overall, 58.4% of characters were female and 41.6% were male (Table 4-5). Thus, female characters outnumbered male characters by 16.8%. Similarly, 60.2% of central characters were female (Table 4-6) and 39.8% were male, with female central

characters outnumbering male central characters by 20.4%. Finally, 52.0% of supporting characters were female and 48.0% were male (Table 4-7), indicating no discernable difference in gender representation among supporting characters.

### **Character's Gender and Role**

After running frequencies for males and females in both central and supporting roles, a Chi-square test was conducted to determine if there was a significant relationship between a character's gender and role. It was found, however, that the relationship between a character's gender and role was not significant,  $X^2 (1, N = 430) = 2.09, p > .15$ . Similar proportions of central and supporting characters were found for both genders (Table 4-8). Thus, the distributions of male and female characters between the two roles were close to the overall totals of 77.2% central and 22.8% supporting.

### **Prevalence of Ethnicities**

Out of the 433 characters found in the sample of 273 ads, 80.1% were Caucasian, 15.2% were African American, 2.5% were Hispanic, and 2.1 % were Asian (Table 4-9). Thus, the vast majority of characters were Caucasian. Likewise, among the central characters (Table 4-10), 81.6% were Caucasian, 14.2% were African American, 2.1% were Hispanic, and 2.1% were Asian. In addition, Among the supporting characters (Table 4-11), 75.2% were Caucasian, 18.8% were African American, 4.0% were Hispanic, and 2.0% were Asian. Thus, the vast majority of both central and supporting characters were Caucasian.

### **Character's Ethnicity and Role**

After running frequencies for characters from each ethnic group in both central and supporting roles, a Chi-square test was conducted to determine if there was a

significant relationship between a character's ethnicity and role. However, in order to meet minimum cell counts, the African American, Hispanic, and Asian categories were combined to form the "non-Caucasian" category. The relationship between a character's ethnicity and role was not significant,  $\chi^2 (1, N = 433) = 1.98, p > .16$ . Similar proportions of central and supporting characters were found within both the Caucasian and non-Caucasian categories of ethnicity (Table 4-12). Thus, the distributions of Caucasian and non-Caucasian characters between the two roles were close to the overall totals of 76.7% central and 23.3% supporting.

### **Character's Demographic Relationships**

From this point on, all analyses were conducted only for central characters. Also, due to the small frequency of African American (14.2%), Hispanic (2.1%), and Asian (2.1%) central characters, these three categories were combined to form the non-Caucasian category so that Chi-square tests could be run with the required minimum cell sizes. This change was applied to all further analyses involving the ethnicity variable.

### **Character's Age and Gender**

The relationship between the age and gender of central characters was significant,  $\chi^2 (3, N = 332) = 31.03, p < .00$  (Table 4-13). The Child category was the only age category with more male characters (79.3%) than female characters (20.7%). Thus, the Child category was the most male-oriented age category. While both the Younger Elderly and Older Elderly categories were comprised of more females (57.5% and 52.6%, respectively) than males (42.5% and 47.4%, respectively), the Adult category was the most female-dominated age category (73.6%).

### **Character's Age and Ethnicity**

The relationship between the age and ethnicity of central characters was not significant,  $X^2(3, N = 332) = .53, p > .91$ . Similar proportions of Caucasian and non-Caucasian characters were found within all four age categories (Table 4-14). Thus, the distributions of characters from the Child, Adult, Younger Elderly, and Older Elderly age categories between the two categories of ethnicity were close to the overall totals of 81.6% Caucasian and 18.4% non-Caucasian.

### **Character's Gender and Ethnicity**

The relationship between the gender and ethnicity of central characters was not significant,  $X^2(1, N = 332) = 2.31, p > .13$ . Similar proportions of Caucasian and non-Caucasian characters were found for both males and females (Table 4-15). Thus, the distributions of males and females between the two categories of ethnicity were close to the overall totals of 81.6% Caucasian and 18.4% non-Caucasian.

### **Differences between Character Ages, Genders, and Ethnicities in terms of Occupational Status and Ad Variables**

In order to conduct analyses, changes were made to five different variables: Occupational Category, Health Condition, Theme, Setting, and Age. Within these variables, categories were either merged or dropped so that Chi-square tests could be run with the required minimum cell sizes. What follows is a description of all decisions that were made pertaining to each of these variables.

Regarding the occupational category variable, a complete revamping was required. Among the 332 central characters from all 273 ads, 0.9% were depicted in an occupation that was coded as "Other" (Table 4-16). None of these occupations reoccurred frequently enough, however, to warrant adding additional occupational

categories to the original list of five. In addition, due to the small frequency of the Professional (7.8%), White Collar (1.5%), Blue Collar (0.9%), and Law Enforcement/Rescue Worker (0.3%) categories within the Occupational Category variable, all were recoded as “Working” so that Chi-square tests could be run with the required minimum cell sizes. This resulted in a variable with two levels: “Working” and “Not Working.” Thus, the “Occupational Category” variable was renamed as “Occupational Status,” and the change was applied to all analyses involving this variable.

Of the 14 types of health conditions that were coded for all 332 central characters appearing in 273 ads, there were no instances of Dermatological conditions, HIV/AIDS, or Infectious (non-HIV) conditions (Table 4-20). In addition, while 4.8% of characters appeared in ads in which the health condition did not fit into one of the 14 condition types, none of these conditions, however, reoccurred frequently enough to warrant adding additional categories to the list of health condition types, and were dropped from analysis. Furthermore, due to their small frequency, OB/GYN conditions (2.7%), Urological conditions (4.5%), Cancer (1.5%), and Gastrointestinal conditions (5.1%) were dropped from analysis so that Chi-square tests could be run with the required minimum cell sizes. Finally, rather than dropping the Sleep disorders category from analysis due to its small frequency (2.1%), it was determined that Sleep disorders constitutes a subcategory of Psychiatric/neurological disorders and was, therefore, absorbed into the Psychiatric/neurological category. This resulted in a total of six types of health conditions, a change that was applied to all analyses involving the health condition variable throughout my study.

As for the theme variable, 3.3% of the 332 central characters from all 273 ads appeared in ads in which the theme was coded as “Other” (Table 4-28). None of these extra themes reoccurred frequently enough, however, to warrant adding additional themes to the original list of seven, and were dropped from analysis. In addition, due to the small frequency of the Healthcare theme (2.4%), it was dropped from analysis so that Chi-square tests could be run with the required minimum cell sizes, reducing the number of themes to six. This change was applied to all analyses involving the theme variable.

Like the theme variable, no additional categories were added to the setting variable and one setting category was dropped from analysis. As such, among the 332 central characters from all 273 ads, 17.5% appeared in ads in which the setting was coded as “other” (Table 4-32). None of these extra settings reoccurred frequently enough, however, to warrant adding additional settings to the original list of five, and were dropped from analysis. In addition, due to the small frequency of the Hospital/care-taking setting (0.3%), it was dropped from analysis so that Chi-square tests could be run with the required minimum cell sizes, reducing the number of settings to four. This change was applied to all analyses involving the setting variable.

Lastly, due to the small frequency of child central characters (8.7%), all ads featuring only child central characters were eliminated from all analyses pertaining to research question five, and the Child age group was dropped from all analyses of relationships between the age variable and every other variable (i.e., Health Condition, Tone, Theme, Setting, and Occupational Status) so that Chi-square tests could be run with the required minimum cell sizes.

## **Occupational Status Variable**

Overall, with 88.6% of central characters portrayed as not working (Table 4-16), “not working” was the dominant occupational status. After eliminating ads featuring only child central characters, the number of ads that was analyzed for relationships with the Occupational Status variable was reduced from 273 to 253, and the resulting sample of central characters was reduced from 332 characters from all age categories to 303 characters from the Adult, Younger Elderly, and Older Elderly age categories.

### **Character’s age and occupational status**

There was not a significant relationship between the occupational status and the age of central characters,  $X^2 (2, N = 303) = 3.57, p > .17$ . Within the Adult (85.0%), Younger Elderly (86.8%), and Older Elderly (94.7%) age groups, the vast majority of characters were portrayed as not working (Table 4-17). Thus, a character’s age appears to have little impact on occupational status.

### **Character’s gender and occupational status**

There was a significant relationship between the occupational status and the gender of central characters,  $X^2 (1, N = 303) = 3.71, p < .05$ . While the majority of both male (82.6%) and female (90.2%) characters were portrayed as not working (Table 4-18), the proportion of male characters portrayed as working (17.4%) was larger than that of female characters (9.8%), indicating a stronger relationship between the male gender and the occupational status of “working.”

### **Character’s ethnicity and occupational status**

There was not a significant relationship between the occupational status and the ethnicity of central characters,  $X^2 (1, N = 303) = 1.70, p > .18$ . For both Caucasians (86.3%) and non-Caucasians (92.7%), the vast majority of characters were portrayed as

not working (Table 4-19), indicating that a character's ethnicity has little impact on occupational status.

### **Health Condition Variable**

Overall (Table 4-20), ads for treatments of musculoskeletal diseases and ads for treatments of cardiovascular diseases accounted for the two largest proportions of central characters (19.0% and 18.7%, respectively). These were followed by ads for treatments of psychiatric/neurological conditions (14.8%), ads for treatments of allergies (14.2%), ads for treatments of diabetes (6.9%) and ads for treatments of respiratory conditions (5.7%).

After eliminating ads featuring only child central characters, ads with health conditions coded as "Other," and ads for treatments of one of the discarded health condition categories, the number of ads that were analyzed for relationships with the health condition variable was reduced from 273 to 205, and the resulting sample of central characters was reduced from 332 characters from all age categories to 241 characters from the Adult, Younger Elderly, and Older Elderly age categories.

### **Character's age and targeted health condition**

There was a significant relationship between the types of health conditions targeted in the ad and the age of central characters that appeared in the ad,  $X^2(10, N = 241) = 78.34, p < .00$ . Proportionally, older characters (Younger Elderly and Older Elderly) appeared more often in ads for treatments of both musculoskeletal and cardiovascular disorders than adult characters (Table 4-21), indicating a strong relationship between older age and these two condition categories. Conversely, a large proportion of adult characters (31.8%) and minimal proportions of younger elderly (3.6%) and older elderly (2.1%) characters were used in ads for allergies treatments,

skewing the allergies category almost entirely towards adults. Finally, in contrast to the large proportions of adult (26.4%) and older elderly (25.5%) characters being used in ads for psychiatric/neurological treatments, there was just one younger elderly character (1.2%) found in such ads.

### **Character's gender and targeted health condition**

There was a significant relationship between the types of health conditions targeted in the ad and the gender of central characters that appeared in the ad,  $\chi^2 (5, N = 241) = 28.69, p < .00$ . The primary differences between males and females concerned their presence in ads for treatments of cardiovascular diseases, musculoskeletal disorders, and psychiatric/neurological disorders. With 43.7% of males appearing in ads for cardiovascular treatments (Table 4-22), "cardiovascular diseases" was the most prevalent condition category for males, whereas only 15.6% of females appeared in such ads. This indicates a strong relationship between the male gender and the cardiovascular disease category.

For females, the most prevalent condition category was "musculoskeletal disorders." With 32.5% of females compared to 14.9% of males appearing in ads for musculoskeletal treatments, females were more strongly linked to ads for musculoskeletal treatments than males. Also, with 21.4% of females compared to 10.3% of males appearing in ads for psychiatric/neurological treatments, females were used more commonly than males in ads for treatments of psychiatric/neurological disorders.

### **Character's ethnicity and targeted health condition**

There was a significant relationship between the types of health conditions targeted in the ad and the ethnicity (Caucasian or non-Caucasian) of central characters

that appeared in the ad,  $\chi^2 (5, N = 241) = 11.15, p < .05$ . While both Caucasian and non-Caucasian characters appeared most frequently in ads for treatments of musculoskeletal disorders (25.9% of Caucasians and 27.1% of non-Caucasians) and cardiovascular diseases (25.9% of Caucasians and 25.0% of non-Caucasians), they differed with regard to their presence in ads for diabetes, psychiatric/neurological, and allergies treatments (Table 4-23).

The biggest discrepancy between Caucasian and non-Caucasian characters concerned their appearance in ads for diabetes treatments. It was found that the proportion of non-Caucasian characters used in ads for treatments of diabetes (20.8%) was much greater than the proportion of Caucasian characters used in such ads (6.7%), indicating a strong link between non-Caucasian characters and the diabetes category. In addition, the proportion of Caucasian characters in ads for treatments of psychiatric/neurological disorders (19.2%) and allergies (17.6%) was substantially greater than the proportion of non-Caucasian characters in ads for treatments of these conditions (10.4% for each).

### **Tone Variable**

Considering that 58.1% of central characters appeared in empowering-toned ads (Table 4-24), “empowering” was the dominant tone. “Foreboding” was the second most prevalent tone (18.1%), followed by “neutral” (13.0%) and, lastly, “comedic” (10.8%). After eliminating ads featuring only child central characters, the number of ads that were analyzed for relationships with the Tone variable was reduced from 273 to 253, and the resulting sample of central characters was reduced from 332 characters from all age categories to 303 characters from the Adult, Younger Elderly, and Older elderly age categories.

### **Character's age and tone of the ad**

There was a significant relationship between the tone of the ad and the age of central characters that appeared in the ad,  $\chi^2 (6, N = 303) = 20.47, p < .00$ . While “empowering” was the most prevalent tone for adult (63.6%), younger elderly (54.7%), and older elderly (47.4%) characters (Table 4-25), the foreboding tone was skewed more toward younger elderly (22.6%) and older elderly (31.6%) characters than adult characters (10.7%). Thus, the foreboding tone seems to be more strongly linked to older age.

Younger elderly and older elderly characters differed, however, with regard to their presence in comedic and neutral-toned ads. Specifically, a greater number of younger elderly characters appeared in neutral-toned ads (17.9%) than in comedic-toned ads (4.7%), while older elderly characters appeared more frequently in comedic-toned ads (14.0%) than in neutral-toned ads (7.0%). The distribution of adult characters, on the other hand, remained fairly consistent throughout ads with neutral (13.6%), comedic (12.1%) and foreboding (10.7%) tones.

### **Character's gender and tone of the ad**

There was a significant relationship between the tone of the ad and the gender of central characters that appeared in the ad,  $\chi^2 (3, N = 303) = 16.49, p < .00$ . While “empowering” was by far the most prevalent tone for both male and female central characters (Table 4-26), the proportion of females appearing in “empowering”-toned ads (61.9%) was greater than that of males (49.5%). Thus, the relationship between females and the empowering tone was extremely strong. In addition, the proportion of male characters in ads with either a foreboding (27.5%) or comedic tone (14.7%) exceeded

that of female characters (13.9% and 7.2%, respectively), and the proportion of female characters in neutral-toned ads (17.0%) exceeded that of male characters (8.3%).

### **Character's ethnicity and tone of the ad**

The distributions of both Caucasian and non-Caucasian characters throughout each of the tone categories were similar to each other, and they paralleled the overall distribution pattern of the four tone categories (Table 4-27). Therefore, there was not a significant relationship between the tone of the ad and the ethnicity of central characters that appeared in the ad,  $X^2(3, N = 303) = 1.13, p > .77$ . As such, "empowering" was by far the most prevalent tone for both Caucasian (56.0%) and non-Caucasian (63.6%) characters. After "empowering," "foreboding" was the next most prevalent tone for both groups, followed by neutral and comedic.

### **Theme Variable**

Overall (Table 4-28), recreational/social-themed ads and family-themed ads accounted for the two largest proportions of central characters (31.9% and 24.7%, respectively). These were followed by ads with no theme (18.4%), ads with a romantic/sexual theme (9.6%), ads with a work theme (6.3%), and ads with a rest/sleep theme (3.3%). After eliminating ads featuring only child central characters, ads with themes coded as "other," and ads with a Healthcare theme, the number of ads that were analyzed for relationships with the Theme variable was reduced from 273 to 242, and the resulting sample of central characters was reduced from 332 characters from all age categories to 289 characters from the Adult, Younger Elderly, and Older Elderly age categories.

### **Character's age and theme of the ad**

There was a significant relationship between the theme of the ad and the age of central characters that appeared in the ad,  $\chi^2 (10, N = 289) = 24.33, p < .01$ . While adult and younger elderly characters shared similar distributions throughout the majority of theme categories (Table 4-29), the distribution of older elderly characters throughout the theme categories deviated considerably from the pattern established by the other two age groups. The biggest deviation concerned the family theme, which was the most prevalent theme for older elderly characters. With 43.6% of older elderly characters used in family-themed ads compared to 20.1% of adults and 19.0% of younger elderly characters, there was a very strong relationship between the older elderly age group and the family theme.

Consistent with the overall totals, "recreational/social" was the most prevalent theme for adult (33.6%) and younger elderly (34.0%) characters. The proportion of older elderly characters in recreational/social-themed ads (29.1%), however, was not much smaller than the proportions of adult and younger elderly characters. Other deviations from the general distribution pattern stemmed from the diminished presence of older elderly characters in ads with either a "work" or "romantic/sexual" theme compared to adult and younger elderly characters.

Despite a small frequency, it is also noteworthy that almost every character used in a rest/sleep-themed ad belonged to the adult age group. Thus, there was a strong relationship between the rest/sleep theme and the adult age group. Finally, out of all three age groups, "younger elderly" had the greatest proportion of characters appearing in ads with no theme (25.0%).

### **Character's gender and theme of the ad**

There was not a significant relationship between the theme of the ad and the gender of central characters that appeared in the ad,  $\chi^2 (5, N = 289) = 8.01, p > .16$ . This is because the distributions of male and female characters were similar across the theme categories (Table 4-30). Males and females were both used most frequently in ads with a recreational/social theme (34.6% of males and 31.9% of females), and large proportions of male (25.0%) and female (23.8%) characters were used in family-themed ads as well. The proportion of female characters in ads with no theme (24.9%), however, was larger than that of male characters (13.5%). In addition, there was somewhat of a discrepancy between genders concerning the "work" theme, with the proportion of male characters in work-themed ads (10.6%) exceeding the proportion of female characters (5.4%). As stated previously, however, these differences were not large enough for statistical significance.

### **Character's ethnicity and theme of the ad**

There was a significant relationship between the theme of the ad and the ethnicity of central characters that appeared in the ad,  $\chi^2 (5, N = 289) = 13.76, p < .02$ . The biggest discrepancy between Caucasian and non-Caucasian characters concerned their presence in romantic/sexual-themed ads (Table 4-31). It was found that the proportion of non-Caucasian characters used in ads with a romantic/sexual theme (23.5%) was much greater than the proportion of Caucasian characters (8.4%). Therefore, the relationship between non-Caucasian characters and the romantic/sexual theme appears to be strong.

In addition, the proportion of Caucasian characters in ads with no theme (22.3%) and work-themed ads (8.0%) was greater than the proportion of non-Caucasian

characters in ads with these themes (13.7% and 3.9%, respectively). Finally, 4.6% of Caucasian characters were used in ads with a rest/sleep theme, while there were no non-Caucasian characters used in rest/sleep-themed ads. This indicates that the rest/sleep theme is linked to Caucasian characters. For both Caucasians and non-Caucasians, however, the greatest proportions of characters were found in recreational/social-themed ads, followed by ads with a family theme.

### **Setting Variable**

Overall, 37.0% of central characters appeared in ads with an outdoors setting (Table 4-32), making “outdoors” the most prevalent setting. “No setting” (24.7%) was the next most prevalent setting, followed by “home” (16.6%) and “office/business” (3.9%). After eliminating ads featuring only child central characters, ads with settings coded as “other,” and ads with a Hospital/care-taking setting, the number of ads that were analyzed for relationships with the Setting variable was reduced from 273 to 217, and the resulting sample of central characters was reduced from 332 characters from all age categories to 252 characters from the Adult, Younger elderly, and Older Elderly age categories.

### **Character’s age and setting of the ad**

There was a significant relationship between the setting of the ad and the age of central characters that appeared in the ad,  $X^2(6, N = 252) = 15.46, p < .02$ . While “outdoors” was the most prevalent setting for all three age groups (Table 4-33), including 42.2% of adult characters and 41.2% of older elderly characters, over half of younger elderly characters (52.2%) were used in ads with an outdoors setting. This makes “younger elderly” the age group that was most closely tied to the outdoors setting.

“No setting” was the next most frequent setting category across age groups. However, around 37% of each of the older age groups (“younger elderly” and “older elderly”) was used in ads with no setting compared to 24.8% of adults. This indicates that the adult age group was less strongly tied to ads with no setting than the two older age groups.

The proportion of adult characters used in ads with a home setting matched the proportion of adult characters used in ads with no setting (24.8%), making “adult” the age group with the most characters devoted to ads set in the home. In fact, with 24.8% of adult characters, 17.6% of older elderly characters, and just 8.7% of younger elderly characters used in ads with a home setting, the “home” setting showed the greatest variation among age groups. The younger elderly age group, then, had the weakest connection to the home setting. Finally, despite a small frequency, the proportion of adult characters used in ads with an office/business setting (8.3%) was the largest of the three age groups.

### **Character’s gender and setting of the ad**

The distributions of both male and female characters across the setting categories closely paralleled the total setting-distribution pattern (Table 4-34). Thus, there was not a significant relationship between the setting of the ad and the gender of central characters that appeared in the ad,  $X^2(3, N = 252) = 2.53, p > .47$ . Consistent with the total setting-distribution pattern, both male and female characters were used most frequently in ads with an outdoors setting (51.1% of males and 42.6% of females). Following the “outdoors” setting, 27.8% of males and 34.0% of females were used in ads with no setting. After “no setting,” the most prevalent setting for both genders was “home,” while “office/business” was the least prevalent setting.

### **Character's ethnicity and setting of the ad**

There was not a significant relationship between the setting of the ad and the ethnicity of central characters that appeared in the ad,  $\chi^2 (3, N = 252) = 4.18, p > .24$ . This was due to the similarity of the distributions of "Caucasian" and "non-Caucasian" characters throughout the setting categories. Both Caucasian and non-Caucasian characters appeared most often in ads with either an outdoors setting or with no setting (Table 4-35), followed by a home setting and, lastly, an office/business setting. A discrepancy was found, however, between Caucasians and non-Caucasians regarding the proportion of characters in ads with no setting. Though not statistically significant, 43.8% of non-Caucasian characters were used in ads with no setting compared to 28.9% of Caucasian characters, indicating that non-Caucasian characters had the strongest relationship with the "no setting" category.

### **Emergence of Stereotypes**

All 332 central characters (including child characters) from 273 ads were coded as either displaying or not displaying (1 = yes, 0 = no) each of 49 traits (Table 4-36). Out of these 49 traits, eight were not displayed by any characters. These traits were Angry, Hypochondriac, Incompetent, Lonely, Malicious, Old-fashioned, Poor, and Sedentary. In addition, seven traits were displayed by less than 1% of the 332 central characters. These traits were Afraid, Altruistic, Nostalgic, Patriotic, Reminiscent, Retired, and Unsociable. All 15 of the aforementioned traits were dropped from further analysis. The remaining 34 traits, therefore, consisted of Active (22.9%), Adventurous (7.5%), Alert (82.5%), Comical (7.8%), Curious (2.4%), Dependent (1.2%), Depressed (1.2%), Expert (5.1%), Family-oriented (18.1%), Forgetful (2.1%), Fragile (2.7%), Frustrated (12.0%), Future-oriented (4.2%), Happy (60.5%), Health-conscious (19.6%), Healthy (61.7%),

Incapacitated (4.8%), Lively (3.9%), Mellow (6.9%), Naïve (1.2%), Nurturing (13.0%), Productive (11.4%), Sad (1.2%), Sexual (4.2%), Sick (14.8%), Skilled (7.2%), Sociable (30.4%), Strong (3.3%), Successful (53.3%), Tired (1.2%), Wary (1.5%), Wealthy (1.5%), Well-Informed (14.2%), and Worried (4.5%). Because a minimum of four occurrences of a particular trait was necessary for the trait to pertain to at least 1% of characters (specifically 1.2%), all of the 34 traits retained for further analysis were displayed by four or more characters.

Next, a factor analysis with varimax rotation was conducted on the remaining 34 traits to group into meaningful stereotypes. With a cutoff of .40 or higher for factor loadings and a minimum of 3 traits loaded onto each factor, the factor analysis yielded five acceptable factors, which were then labeled as *Picture Perfect* (eigenvalue=3.60), *Virtuoso* (eigenvalue=2.17), *Health Advocate* (eigenvalue=1.60), *Despondent* (eigenvalue=2.17), and *Impaired* (eigenvalue=2.01). Thus, the factor analysis yielded three positive stereotypes and two negative stereotypes (Table 4-37).

As noted previously (e.g., Ingram, 1983), there is debate surrounding the use of factor analysis for dichotomous variables. The use of factor analysis for dichotomous variables is justified, however, when the interest is simply to observe how variables cluster (Kim, Nie, & Verba, 1977; Kim & Mueller, 1978). This is the same justification used by Ingram (1983) for his factor analysis of dichotomous variables in his study of state accounting practices. Similarly, the sole interest of the present research is to observe the general clustering of character traits in order to identify “stereotypes.” Furthermore, Percy et al. (1976) have argued for the use of factor analysis for

dichotomous variables by presenting a case in which results were unchanged after reducing variables to dichotomous variables and rerunning a factor analysis.

### **Negative Stereotypes**

The two negative stereotypes, Despondent and Impaired, were based on Hummert et al's (1994) stereotype clusters. While Hummert et al (1994) had two separate stereotype clusters of "Mildly Impaired" and "Severely Impaired," traits from these two stereotype clusters were loaded together in this study to form the Impaired stereotype. Therefore, the Impaired stereotype is comprised of the following three traits: Forgetful (factor loading=.83), Fragile (factor loading=.76), and Worried (factor loading=.69). The traits that comprise the Despondent stereotype are Sad (factor loading=.89), Tired (factor loading=.48), and Depressed (factor loading=.88).

### **Positive Stereotypes**

As for the positive stereotypes, the traits that comprise the Picture Perfect stereotype are Alert (factor loading=.60), Happy (factor loading=.66), Healthy (factor loading=.66), Successful (factor loading=.61), Uplifted (factor loading=.84), and Disease-free (factor loading=.83). Uplifted and Disease-free were originally labeled as Frustrated and Sick, respectively. However, to reverse their negative loadings on the factor, the values of the traits were reverse-coded and the traits were relabeled. The Virtuoso stereotype is comprised of the following three traits: Expert (factor loading=.83), Productive (factor loading=.63), and Skilled (factor loading=.84). Finally, the traits included in the Health Advocate stereotype are Future-oriented (factor loading=.74), Health-conscious (factor loading=.65), and Well-informed (factor loading=.51).

## **Differences in Stereotypical Portrayals in terms of Character Demographics and Ad Variables**

To address this research question, traits respective of each of the five stereotypes were combined and averaged into indices. Analyses were then conducted to examine any differences in stereotype representation between categories within the same variable. Such analyses were conducted for the following eight variables: character's age, character's gender, character's ethnicity, character's occupational status, health condition advertised, overall tone of the ad, overall theme of the ad, and physical setting in which the character is portrayed.

### **Character's Age and Stereotyping**

Among all 332 central characters appearing in 273 ads, differences between age groups in level of stereotype representation were explored for each of the five stereotypes. As for the level of the Despondent stereotype, the Child and Younger elderly age groups had mean scores of .00, indicating a lack of the Despondent stereotype among Child and Younger elderly characters. Therefore, a one-way ANOVA was conducted with a sample that consisted of 197 central characters from the Adult and Older elderly age groups appearing in 131 ads to examine a potential difference between Adult and Older elderly characters in level of the Despondent stereotype (Table 4-38). There was no significant difference, however, between these two age groups,  $F(1, 195) = 1.27, p = .261$ .

Regarding the Health Advocate stereotype, a one-way ANOVA was conducted with a sample that consisted of all 332 central characters from all four age groups appearing in 273 ads to examine any differences between age groups in level of the Health Advocate stereotype among central characters (Table 4-39). The results showed

a significant difference between age groups,  $F(3, 328) = 13.44, p = .000$ . Post-hoc comparisons using Fisher's LSD test indicated that the mean score for Younger elderly characters ( $M=.23, SD=.28$ ) was significantly greater than those for Child ( $M=.01, SD=.06$ ), Adult ( $M=.09, SD=.20$ ), and Older elderly ( $M=.08, SD=.16$ ) characters. There was no significant difference in the Health Advocate stereotype between the latter three age groups. These results suggest that Younger elderly characters were more likely to be portrayed as Health Advocates than Child, Adult, and Older elderly characters.

As for the level of the Impaired stereotype, the Child age group had a mean score of .00, indicating a lack of the Impaired stereotype among Child characters. A one-way ANOVA was conducted, then, with a sample that consisted of 303 central characters from the Adult, Younger elderly, and Older elderly age groups appearing in 247 ads to examine differences in representation of the Impaired Stereotype between Adult, Younger elderly, and Older elderly characters (Table 4-40). The results showed a significant difference in the Impaired stereotype between age categories,  $F(2, 300) = 9.46, p = .000$ . Post-hoc comparisons using Fisher's LSD test indicated that the mean score for Older elderly characters ( $M=.11, SD=.27$ ) was significantly greater than those for Adult ( $M=.02, SD=.10$ ) and Younger elderly characters ( $M=.01, SD=.06$ ). There was no significant difference in the Impaired stereotype between the latter two age groups. These results suggest that Older elderly characters were more likely to be portrayed as Impaired than Child, Adult, and Younger elderly characters.

Regarding the Picture Perfect stereotype, a one-way ANOVA was conducted with a sample that consisted of all 332 central characters from all four age groups appearing in 273 ads to examine any differences between age groups in level of the Picture

Perfect stereotype among central characters (Table 4-41). The results showed a significant difference between age categories,  $F(3, 328) = 13.44, p = .000$ . Post-hoc comparisons using Fisher's LSD test indicated that the mean scores for Child characters ( $M=.87, SD=.26$ ) and Younger elderly characters ( $M=.81, SD=.21$ ) were significantly greater than those for Adult ( $M=.63, SD=.38$ ) and Older elderly characters ( $M=.68, SD=.27$ ). There was no significant difference between Child ( $M=.87, SD=.26$ ) and Younger elderly characters ( $M=.81, SD=.21$ ), and there was no significant difference between Adult ( $M=.63, SD=.38$ ) and Older elderly characters ( $M=.68, SD=.27$ ). These results suggest that Child and Younger elderly characters were more likely to be portrayed as Picture Perfect than Adult and Older elderly characters.

Finally, a one-way ANOVA was conducted with a sample that consisted of all 332 central characters from all four age groups appearing in 273 ads to examine any differences between age groups in level of the Virtuoso stereotype among central characters (Table 4-42). There was no significant difference in the Virtuoso stereotype, however, between the four age groups,  $F(3, 328) = 1.17, p = .323$ .

### **Character's Gender and Stereotyping**

An independent samples *t*-test with a sample that consisted of all 332 central characters appearing in 273 ads was conducted for each of the five stereotypes to identify gender differences in level of stereotype representation (Table 4-43). The results showed no significant difference in the Despondent,  $t(330) = -1.59, p = .11$ ; Health Advocate,  $t(330) = 1.62, p = .11$ ; Impaired,  $t(330) = .73, p = .47$ ; Picture Perfect,  $t(330) = .69, p = .49$ ; or Virtuoso,  $t(330) = 1.69, p = .09$ , stereotypes between males and females.

### **Character's Ethnicity and Stereotyping**

An independent samples *t*-test with a sample that consisted of all 332 central characters appearing in 273 ads was conducted for each of the five stereotypes to identify differences between Caucasian and Non-Caucasian characters in level of stereotype representation (Table 4-44). The results showed that the mean score for Non-Caucasian characters ( $M = .18$ ,  $SD = .28$ ) was significantly greater than the mean score for Caucasian characters ( $M = .11$ ,  $SD = .22$ ) in the Health Advocate stereotype,  $t(330) = -2.04$ ,  $p = .04$ . The results also showed that the mean score for Non-Caucasian characters ( $M = .81$ ,  $SD = .23$ ) was significantly greater than Caucasian characters ( $M = .70$ ,  $SD = .33$ ) in the Picture Perfect stereotype,  $t(330) = -2.63$ ,  $p = .01$ . There was no significant difference in the Despondent,  $t(330) = 1.17$ ,  $p = .24$ ; Impaired,  $t(330) = 1.62$ ,  $p = .11$ ; or Virtuoso,  $t(330) = .11$ ,  $p = .91$ , stereotypes between Caucasian and Non-Caucasian characters. These results indicate that Non-Caucasian characters were more likely to be portrayed as Health Advocates and Picture Perfect than Caucasian characters.

### **Character's Occupational Status and Stereotyping**

An independent samples *t*-test with a sample that consisted of all 332 central characters appearing in 273 ads was conducted for each of the five stereotypes to identify differences between Working and Not Working characters in level of stereotype representation (Table 4-45). The results showed that the mean score for Working characters ( $M = .23$ ,  $SD = .28$ ) was significantly greater than the mean score for Not Working characters ( $M = .11$ ,  $SD = .22$ ) in the Health Advocate stereotype,  $t(330) = 2.94$ ,  $p = .00$ . The results also showed that the mean score for Working characters ( $M = .52$ ,  $SD = .34$ ) was significantly greater than the mean score for Not Working characters

( $M=.02$ ,  $SD=.09$ ) in the Virtuoso stereotype,  $t(330)=20.19$ ,  $p = .00$ . There was no significant difference in the Despondent,  $t(330)=.40$ ,  $p = .69$ ; Impaired,  $t(330)= -.23$ ,  $p = .82$ ; or Picture Perfect ( $t(330)=.55$ ,  $p = .58$ , stereotypes between Working and Not Working characters. These results indicate that Working characters were more likely to be portrayed as Health Advocates than Not Working characters, and Working characters were much more likely to be portrayed as Virtuosos than Not Working characters.

### **Health Condition and Stereotyping**

After eliminating ads with health conditions not fitting into the original list of 14 categories, as well as those with conditions fitting one of the discarded categories from the original list, a sample of 270 central characters from 225 ads remained for an exploration of differences between health conditions (Allergies, Cardiovascular, Diabetes, Musculoskeletal, Psychiatric/Neurological, and Respiratory) in level of stereotype representation for each of the five stereotypes. As for the level of the Despondent stereotype, the Allergies, Cardiovascular, Diabetes, Musculoskeletal, and Respiratory categories had mean scores of .00, indicating a lack of the Despondent stereotype among characters in ads for treatments of these conditions. As for Psychiatric/neurological conditions, the mean score for the Despondent stereotype was .07. Thus, ads for treatments of psychiatric/neurological conditions were the only ones to feature characters portrayed as Despondent.

Regarding the Health Advocate stereotype (Table 4-46), a one-way ANOVA was conducted with a sample that consisted of all 270 central characters appearing in 225 ads for treatments of Allergies, Cardiovascular, Diabetes, Musculoskeletal, Psychiatric/Neurological, or Respiratory conditions to examine any differences between

health conditions in level of the Health Advocate stereotype. The results showed a significant difference between condition categories,  $F(5, 264) = 15.39, p = .000$ . Post-hoc comparisons using the Fisher's Least Significant Difference (LSD) test indicated that the mean scores for the Cardiovascular ( $M=.24, SD=.32$ ), Diabetes ( $M=.30, SD=.30$ ), and Musculoskeletal ( $M=.19, SD=.21$ ) categories were each significantly greater than those for the Psychiatric/neurological ( $M=.01, SD=.06$ ), Allergies ( $M=.01, SD=.07$ ), and Respiratory ( $M=.02, SD=.08$ ) categories. In addition, the Diabetes category ( $M=.30, SD=.30$ ) had a significantly greater mean score than the Musculoskeletal category ( $M=.19, SD=.21$ ). The results suggest that characters from ads for Cardiovascular, Diabetes, and Musculoskeletal treatments were all more likely to be portrayed as Health Advocates than were characters from ads for Psychiatric/neurological, Allergies, and Respiratory treatments. Furthermore, characters from ads for Diabetes treatments were more likely to be portrayed as Health Advocates than were characters from ads for Musculoskeletal treatments.

As for the level of the Impaired stereotype, the Allergies and Cardiovascular categories had mean scores of .00, indicating a lack of the Impaired stereotype among characters in ads for treatments of these condition categories. Therefore, a one-way ANOVA was conducted with a sample that consisted of 161 central characters appearing in 139 ads for treatments of Diabetes, Musculoskeletal, Psychiatric/Neurological, or Respiratory conditions to examine any differences between these conditions in level of the Impaired stereotype (Table 4-47). The results showed a significant difference in the Impaired stereotype between condition categories,  $F(3, 157) = 4.78, p = .003$ . Post-hoc comparisons using the Fisher's Least Significant (LSD) test

indicated that the mean score for the Psychiatric/neurological category ( $M=.14$ ,  $SD=.29$ ) was significantly greater than those for the Musculoskeletal ( $M=.02$ ,  $SD=.07$ ), Diabetes ( $M=.03$ ,  $SD=.10$ ), and Respiratory ( $M=.04$ ,  $SD=.11$ ) categories. There were no other significant differences in the Impaired stereotype between condition categories. The results suggest that ads for Psychiatric/neurological treatments were more likely to feature characters portrayed as Impaired than were ads for Allergies, Cardiovascular, Musculoskeletal, Diabetes, and Respiratory treatments.

Regarding the Picture Perfect stereotype, a one-way ANOVA was conducted with a sample that consisted of all 270 central characters appearing in 225 ads for treatments of Allergies, Cardiovascular, Diabetes, Musculoskeletal, Psychiatric/Neurological, or Respiratory conditions to examine any differences between health conditions in level of the Picture Perfect stereotype (Table 4-48). The results showed a significant difference between condition categories,  $F(5, 264) = 5.17$ ,  $p = .000$ . Post-hoc comparisons using the Fisher's Least Significant Difference (LSD) test indicated that the Musculoskeletal ( $M=.87$ ,  $SD=.18$ ), Diabetes ( $M=.75$ ,  $SD=.27$ ), Respiratory ( $M=.73$ ,  $SD=.36$ ), and Allergies ( $M=.73$ ,  $SD=.40$ ) categories had significantly greater mean scores than the Psychiatric/neurological category ( $M=.61$ ,  $SD=.39$ ). In addition, the mean score for the Musculoskeletal category ( $M=.87$ ,  $SD=.18$ ) was significantly greater than those for the Cardiovascular ( $M=.65$ ,  $SD=.19$ ), Respiratory ( $M=.73$ ,  $SD=.36$ ), and Allergies ( $M=.73$ ,  $SD=.40$ ) categories. There were no other significant differences in the Picture Perfect stereotype between condition categories. The results suggest that ads for Musculoskeletal, Diabetes, Respiratory, and Allergies treatments were more likely to feature characters portrayed as Picture Perfect

than were ads for Psychiatric/neurological treatments. Furthermore, ads for Musculoskeletal treatments were more likely to feature characters portrayed as Picture Perfect than were ads for Cardiovascular, Respiratory, and Allergies treatments.

As for the Virtuoso stereotype, a one-way ANOVA was conducted with a sample that consisted of all 270 central characters appearing in 225 ads for treatments of Allergies, Cardiovascular, Diabetes, Musculoskeletal, Psychiatric/Neurological, or Respiratory conditions to examine any differences between health conditions in level of the Virtuoso stereotype (Table 4-49). The results showed a significant difference between condition categories,  $F(5, 264) = 3.21, p = .008$ . Post-hoc comparisons using the Fisher's Least Significant Difference (LSD) test indicated that the mean scores for the Cardiovascular ( $M=.15, SD=.31$ ) and Musculoskeletal ( $M=.13, SD=.28$ ) categories were significantly greater than those for the Diabetes ( $M=.03, SD=.10$ ), Allergies ( $M=.02, SD=.08$ ) and Respiratory ( $M=.02, SD=.08$ ) categories. In addition, the Cardiovascular category ( $M=.15, SD=.31$ ) had a significantly greater mean score than the Psychiatric/neurological category ( $M=.07, SD=.13$ ). There were no other significant differences in the Virtuoso stereotype between condition categories. These results suggest that ads for Cardiovascular and Musculoskeletal treatments were more likely to feature characters portrayed as Virtuosos than were ads for Diabetes, Allergies, and Respiratory treatments. Furthermore, ads for Cardiovascular treatments were more likely to feature characters portrayed as Virtuosos than were ads for Psychiatric/neurological treatments.

### **Tone and Stereotyping**

From a sample of all 332 central characters appearing in 273 ads, differences between tones in level of stereotype representation were explored for each of the five

stereotypes. As for the level of the Despondent stereotype, the Neutral tone had a mean score of .00, indicating a lack of the Despondent stereotype among characters in Neutral-toned ads. Therefore, a one-way ANOVA was conducted with a sample that consisted of 289 central characters appearing in 215 ads with a Comedic, Empowering, or Foreboding tone to examine differences in representation of the Impaired stereotype between these tones (4-50). The results, however, showed no significant differences between the three tones,  $F(2, 286) = .39, p = .676$ .

Regarding the Health Advocate stereotype, the Comedic tone had a mean score of .00, indicating a lack of the Health Advocate stereotype among characters in Comedic-toned ads. A one-way ANOVA was conducted, then, with a sample that consisted of 296 central characters appearing 245 ads with an Empowering, Foreboding, or Neutral tone to examine differences in representation of the Health Advocate stereotype between these tones (Table 4-51). The results showed no significant differences between the three tones,  $F(2, 293) = 1.61, p = .202$ .

Regarding the Impaired stereotype, a one-way ANOVA was conducted with a sample that consisted of all 332 central characters appearing in 273 ads with a Comedic, Empowering, Foreboding, or Neutral tone to examine differences in representation of the Impaired stereotype between tones (Table 4-52). The results showed a significant difference between tones,  $F(3, 328) = 5.41, p = .001$ . Post-hoc comparisons using the Fisher's LSD test indicated that the mean score for the Foreboding tone ( $M=.09, SD=.26$ ) was significantly greater than those for the Empowering ( $M=.02, SD=.09$ ), Comedic ( $M=.02, SD=.08$ ), and Neutral ( $M=.02, SD=.07$ ) tones. There was no significant difference in the Impaired stereotype between the latter

three tones. The results suggest that ads with a Foreboding tone were more likely to feature characters portrayed as Impaired than were ads with Empowering, Comedic, and Neutral tones.

As for the Picture Perfect stereotype, a one-way ANOVA was conducted with a sample that consisted of all 332 central characters appearing in 273 ads with a Comedic, Empowering, Foreboding, or Neutral tone to examine differences in representation of the Picture Perfect stereotype between tones (Table 4-53). The results showed a significant difference between tones,  $F(3, 328) = 19.04, p = .000$ . Post-hoc comparisons using the Fisher's LSD test indicated that the mean score for the Empowering tone ( $M=.82, SD=.30$ ) was significantly greater than those for the Foreboding ( $M=.55, SD=.19$ ), Comedic ( $M=.56, SD=.35$ ), and Neutral ( $M=.64, SD=.33$ ) tones. There was no significant difference in the Picture Perfect stereotype between the latter three tones. The results suggest that ads with an Empowering tone were more likely to feature characters portrayed as Picture Perfect than were ads with Foreboding, Comedic, and Neutral tones.

Finally, a one-way ANOVA was conducted with a sample that consisted of all 332 central characters appearing in 273 ads with a Comedic, Empowering, Foreboding, or Neutral tone to examine differences in representation of the Virtuoso stereotype between tones (Table 4-54). There was no significant difference, however, in the Virtuoso stereotype between the four tones,  $F(3, 328) = 1.85, p = .138$ .

### **Theme and Stereotyping**

After eliminating the ads with themes not on the original list of seven themes and those with a Healthcare theme, a sample of 313 central characters from 257 ads remained for an exploration of differences between themes (Family, No Theme,

Recreational/Social, Rest/Sleep, Romantic/Sexual, and Work) in level of stereotype representation for each of the five stereotypes. As for the level of the Despondent stereotype, the Romantic/Sexual theme had a mean score of .00, indicating a lack of the Despondent stereotype among characters in Romantic/Sexual-themed ads. Therefore, a one-way ANOVA was conducted with a sample that consisted of 281 central characters appearing in 235 ads with a Family, No Theme, Recreational/Social, Rest/Sleep, or Work theme to examine differences in representation of the Despondent stereotype between these themes (Table 4-55). The results, however, showed no significant differences between the five themes,  $F(4, 276) = 1.00, p = .406$ .

Regarding the Health Advocate stereotype, a one-way ANOVA was conducted with a sample that consisted of all 313 central characters appearing in 257 ads with a Family, No Theme, Recreational/Social, Rest/Sleep, Romantic/Sexual, or Work theme to examine any differences between themes in level of the Health Advocate stereotype (Table 4-56). The results showed no significant difference between themes,  $F(5, 307) = .90, p = .479$ .

As for the level of the Impaired stereotype, the Rest/Sleep and Romantic/Sexual themes had mean scores of .00, indicating a lack of the Impaired stereotype among characters in ads with these themes. A one-way ANOVA was conducted, then, with a sample consisting of 270 central characters appearing in 225 ads with a Family, No Theme, Recreational/Social, or Work theme to examine any differences between these themes in level of the Impaired stereotype (Table 4-57). The results showed a significant difference between themes,  $F(3, 266) = 3.18, p = .024$ . Post-hoc comparisons using the Fisher's LSD test indicated that the mean score for No Theme

( $M=.08$ ,  $SD=.24$ ) was significantly greater than those for the Family ( $M=.03$ ,  $SD=.13$ ) and Recreational/social ( $M=.01$ ,  $SD=.06$ ) themes. The mean score for the Work theme ( $M=.05$ ,  $SD=.16$ ) was not significantly different than the mean score for any other theme, and there was no significant difference in the Impaired stereotype between any other pairs of themes. The results suggest that ads with No Theme were more likely to feature characters portrayed as Impaired than were ads with a Family, Recreational/social, Romantic/sexual, or Rest/sleep theme.

Regarding the Picture Perfect stereotype, a one-way ANOVA was conducted with a sample that consisted of all 313 central characters appearing in 257 ads with a Family, No Theme, Recreational/Social, Rest/Sleep, Romantic/Sexual, or Work theme to examine any differences between themes in level of the Picture Perfect stereotype (Table 4-58). The results showed a significant difference between themes,  $F(5, 307) = 3.31$ ,  $p = .006$ . Post-hoc comparisons using the Fisher's LSD test indicated that the mean score for the Romantic/sexual theme ( $M=.86$ ,  $SD=.22$ ) was significantly greater than those for the Family theme ( $M=.73$ ,  $SD=.30$ ), Work theme ( $M=.68$ ,  $SD=.32$ ), No Theme ( $M=.63$ ,  $SD=.35$ ), and Rest/sleep theme ( $M=.55$ ,  $SD=.33$ ). In addition, the mean score for the Recreational/social theme ( $M=.75$ ,  $SD=.31$ ) was significantly greater than those for No Theme ( $M=.63$ ,  $SD=.35$ ) and the Rest/sleep theme ( $M=.55$ ,  $SD=.33$ ). There was no significant difference in the Picture Perfect stereotype between any other pairs of themes. The results suggest that ads with a Romantic/sexual theme were more likely to feature characters portrayed as Picture Perfect than were ads with a Family theme, a Work theme, No Theme, or a Rest/sleep theme. Furthermore, ads with a

Recreational/social theme were more likely to feature characters portrayed as Picture Perfect than were ads with either No Theme or a Rest/sleep theme.

As for the level of the Virtuoso stereotype, the Rest/Sleep and Romantic/Sexual themes had mean scores of .00, indicating a lack of the Impaired stereotype among characters in ads with these themes. Therefore, a one-way ANOVA was conducted with a sample consisting of 270 central characters appearing in 225 ads with a Family, No Theme, Recreational/Social, or Work theme to examine any differences between these themes in level of the Virtuoso stereotype (Table 4-59). The results showed a significant difference between themes,  $F(3, 266) = 29.74, p = .000$ . Post-hoc comparisons using the Fisher's LSD test indicated that the mean score for the Work theme ( $M=.43, SD=.34$ ) was significantly greater than those for the Recreational/social theme ( $M=.08, SD=.20$ ), No Theme ( $M=.04, SD=.17$ ), and the Family theme ( $M=.02, SD=.08$ ). In addition, the mean score for the Recreational/social theme ( $M=.08, SD=.20$ ) was significantly greater than the mean score for the Family theme. There was no significant difference in the Virtuoso stereotype between any other pairs of themes. The results suggest that ads with a Work theme were more likely to feature characters portrayed as Virtuosos than were ads with any other theme. Furthermore, ads with a Recreational/social theme were more likely to feature characters portrayed as Virtuosos than were ads with either a Family, Romantic/sexual, or Rest/sleep theme.

### **Setting and Stereotyping**

After eliminating the ads with settings not on the original list of five settings and those with a Hospital/Care-taking setting, a sample of 273 central characters from 230 ads remained for an exploration of differences between settings (Home, No Setting, Office/Business, and Outdoors) in level of stereotype representation for each of the five

stereotypes. As for the level of the Despondent stereotype, No setting and Outdoors settings had mean scores of .00, indicating a lack of the Despondent stereotype among characters in ads with these settings. Therefore, a one-way ANOVA was conducted with a sample consisting of 68 central characters appearing in 54 ads with a Home or Office/Business setting to examine a potential difference between these settings in level of the Despondent stereotype (Table 4-60). The results showed no significant difference, however, between these two settings,  $F(1, 66) = .19, p = .662$ .

As for the Health Advocate stereotype, a one-way ANOVA was conducted with a sample that consisted of all 273 central characters appearing in 230 ads with a Home, No Setting, Office/Business, or Outdoors setting to examine differences in representation of the Health Advocate stereotype between settings (Table 4-61). The results showed no significant difference between settings,  $F(3, 269) = 1.92, p = .126$ .

Regarding the Impaired stereotype, a one-way ANOVA was conducted with a sample that consisted of all 273 central characters appearing in 230 ads with a Home, No Setting, Office/Business, or Outdoors setting to examine differences in representation of the Impaired stereotype between settings (Table 4-62). The results showed a significant difference between settings,  $F(3, 269) = 3.27, p = .022$ . Post-hoc comparisons using the Fisher's LSD test indicated that the mean scores for the Office/business setting ( $M=.08, SD=.20$ ) and No Setting ( $M=.07, SD=.23$ ) were significantly greater than those for the Home ( $M=.02, SD=.08$ ) and Outdoors ( $M=.01, SD=.06$ ) settings. There were no other significant differences in the Impaired stereotype between settings. These results suggest that ads with either an Office/business setting

or No Setting were more likely to feature characters portrayed as Impaired than were ads with either a Home or Outdoors setting.

As for the Picture Perfect stereotype, a one-way ANOVA was conducted with a sample that consisted of all 273 central characters appearing in 230 ads with a Home, No Setting, Office/Business, or Outdoors setting to examine differences in representation of the Picture Perfect stereotype between settings (Table 4-63). The results showed a significant difference between settings,  $F(3, 269) = 3.81, p = .011$ . Post-hoc comparisons using the Fisher's LSD test indicated that the mean score for the Outdoors setting ( $M=.80, SD=.27$ ) was significantly greater than those for No Setting ( $M=.69, SD=.31$ ), the Home setting ( $M=.67, SD=.33$ ), and the Office/business setting ( $M=.63, SD=.36$ ). There was no significant difference in the Picture Perfect stereotype between the latter three settings. These results suggest that ads with an Outdoors setting were more likely to feature characters portrayed as Picture Perfect than were ads with either No Setting, a Home setting, or an Office/business setting.

Regarding the Virtuoso stereotype, a one-way ANOVA was conducted with a sample that consisted of all 273 central characters appearing in 230 ads with a Home, No Setting, Office/Business, or Outdoors setting to examine differences in representation of the Virtuoso stereotype between settings (Table 4-64). The results showed a significant difference between settings,  $F(3, 269) = 10.46, p = .000$ . Post-hoc comparisons using the Fisher's LSD test indicated that the mean score for the Office/business setting ( $M=.33, SD=.36$ ) was significantly greater than those for the Home setting ( $M=.04, SD=.10$ ), No setting ( $M=.04, SD=.18$ ), and the Outdoors setting ( $M=.07, SD=.18$ ). There was no significant difference in the Virtuoso stereotype

between the latter three settings. These results suggest that ads with an Office/business setting were more likely to feature characters portrayed as Virtuosos than were ads with any other setting.

Table 4-1. Age Distribution: All Characters

Age	Frequency	Percent
Child (Under 18)	86.0	19.9%
Adult (18-49)	164.0	37.9%
Younger Elderly (50-64)	119.0	27.5%
Older Elderly (65+)	64.0	14.8%
Total	433.0	100.0%

Table 4-2. Age Distribution: Central Characters

Age	Frequency	Percent
Child (Under 18)	29.0	8.7%
Adult (18-49)	140.0	42.2%
Younger Elderly (50-64)	106.0	31.9%
Older Elderly (65+)	57.0	17.2%
Total	332.0	100.0%

Table 4-3. Age Distribution: Supporting Characters

Age	Frequency	Percent
Child (Under 18)	57.0	56.4%
Adult (18-49)	24.0	23.8%
Younger Elderly (50-64)	13.0	12.9%
Older Elderly (65+)	7.0	6.9%
Total	101.0	100.0%

Table 4-4. Age and Role

Age	Role	Frequency	Percent
Child (Under 18)	Central	29.0	33.7%
	Supporting	57.0	66.3%
	Total	86.0	100.0%
Adult (18-49)	Central	140.0	85.4%
	Supporting	24.0	14.6%
	Total	164.0	100.0%
Younger Elderly (50-64)	Central	106.0	89.1%
	Supporting	13.0	10.9%
	Total	119.0	100.0%
Older Elderly (65+)	Central	57.0	89.1%
	Supporting	7.0	10.9%
	Total	64.0	100.0%

$\chi^2 = 111.37$ , d.f. = 3,  $p = .00$ ,  $n = 433$

Table 4-5. Gender Distribution: All Characters

Gender	Frequency	Percent
Female	251.0	58.4%
Male	179.0	41.6%
Total	430.0	100.0%

Table 4-6. Gender Distribution: Central Characters

Gender	Frequency	Percent
Female	200.0	60.2%
Male	132.0	39.8%
Total	332.0	100.0%

Table 4-7. Gender Distribution: Supporting Characters

Gender	Frequency	Percent
Female	51.0	52.0%
Male	47.0	48.0%
Total	98.0	100.0%

Table 4-8. Gender and Role

Gender	Role	Frequency	Percent
Female	Central	200.0	79.7%
	Supporting	51.0	20.3%
	Total	251.0	100.0%
Male	Central	132.0	73.7%
	Supporting	47.0	26.3%
	Total	179.0	100.0%

$\chi^2 = 2.09$ , d.f.= 1, p = .15, n = 430

Table 4-9. Ethnicity Distribution: All Characters

Ethnicity	Frequency	Percent
African American	66.0	15.2%
Asian	9.0	2.1%
Caucasian	347.0	80.1%
Hispanic	11.0	2.5%
Total	433.0	100.0%

Table 4-10. Ethnicity Distribution: Central Characters

Ethnicity	Frequency	Percent
African American	47.0	14.2%
Asian	7.0	2.1%
Caucasian	271.0	81.6%
Hispanic	7.0	2.1%
Total	332.0	100.0%

Table 4-11. Ethnicity Distribution: Supporting Characters

Ethnicity	Frequency	Percent
African American	19.0	18.8%
Asian	2.0	2.0%
Caucasian	76.0	75.2%
Hispanic	4.0	4.0%
Total	101.0	100.0%

Table 4-12. Ethnicity and Role

Ethnicity	Role	Frequency	Percent
Caucasian	Central	271.0	78.1%
	Supporting	76.0	21.9%
	Total	347.0	100.0%
Non-Caucasian	Central	61.0	70.9%
	Supporting	25.0	29.1%
	Total	86.0	100.0%

$\chi^2 = 1.98$ , d.f.= 1, p = .16, n = 433

Table 4-13. Age and Gender: Central Characters

Age	Gender	Frequency	Percent
Child (Under 18)	Female	6.0	20.7%
	Male	23.0	79.3%
	Total	29.0	100.0%
Adult (18-49)	Female	103.0	73.6%
	Male	37.0	26.4%
	Total	140.0	100.0%
Younger Elderly (50-64)	Female	61.0	57.5%
	Male	45.0	42.5%
	Total	106.0	100.0%
Older Elderly (65+)	Female	30.0	52.6%
	Male	27.0	47.4%
	Total	57.0	100.0%

$\chi^2 = 31.03$ , d.f.= 3, p = .00, n = 332

Table 4-14. Age and Ethnicity: Central Characters

Age	Ethnicity	Frequency	Percent
Child (Under 18)	Caucasian	23.0	79.3%
	Non-Caucasian	6.0	20.7%
	Total	29.0	100.0%
Adult (18-49)	Caucasian	116.0	82.9%
	Non-Caucasian	24.0	17.1%
	Total	140.0	100.0%
Younger Elderly (50-64)	Caucasian	87.0	82.1%
	Non-Caucasian	19.0	17.9%
	Total	106.0	100.0%
Older Elderly (65+)	Caucasian	45.0	78.9%
	Non-Caucasian	12.0	21.1%
	Total	57.0	100.0%

$\chi^2 = .53$ , d.f.= 3, p = .91, n = 332

Table 4-15. Gender and Ethnicity: Central Characters

Gender	Ethnicity	Frequency	Percent
Female	Caucasian	158.0	79.0%
	Non-Caucasian	42.0	21.0%
	Total	200.0	100.0%
Male	Caucasian	113.0	85.6%
	Non-Caucasian	19.0	14.4%
	Total	132.0	100.0%

$\chi^2 = 2.31$ , d.f.= 1, p = .13, n = 332

Table 4-16. Occupational Category Distribution: Central Characters

Occupational Category	Frequency	Percent
Professional	26.0	7.8%
White Collar	5.0	1.5%
Blue Collar	3.0	0.9%
Law Enforcement/Rescue Worker	1.0	0.3%
Other	3.0	0.9%
Not Working	294.0	88.6%
Total	332.0	100.0%

Table 4-17. Age and Occupational Status: Adult, Younger Elderly, and Older Elderly Central Characters

Age	Occupational Status	Frequency	Percent
Adult (18-49)	Not Working	119.0	85.0%
	Working	21.0	15.0%
	Total	140.0	100.0%
Younger Elderly (50-64)	Not Working	92.0	86.8%
	Working	14.0	13.2%
	Total	106.0	100.0%
Older Elderly (65+)	Not Working	54.0	94.7%
	Working	3.0	5.3%
	Total	57.0	100.0%

$\chi^2 = 3.57$ , d.f.= 2, p = .17, n = 303

Table 4-18. Gender and Occupational Status: Adult, Younger Elderly, and Older Elderly Central Characters

Gender	Occupational Status	Frequency	Percent
Female	Not Working	175.0	90.2%
	Working	19.0	9.8%
	Total	194.0	100.0%
Male	Not Working	90.0	82.6%
	Working	19.0	17.4%
	Total	109.0	100.0%

$\chi^2 = 3.71$ , d.f.= 1, p = .05, n = 303

Table 4-19. Ethnicity and Occupational Status: Adult, Younger Elderly, and Older Elderly Central Characters

Ethnicity	Occupational Status	Frequency	Percent
Caucasian	Not Working	214.0	86.3%
	Working	34.0	13.7%
	Total	248.0	100.0%
Non-Caucasian	Not Working	51.0	92.7%
	Working	4.0	7.3%
	Total	55.0	100.0%

$\chi^2 = 1.70$ , d.f. = 1, p = .18, n = 303

Table 4-20. Health Condition Distribution: Central Characters

Health Condition	Frequency	Percent
Allergies	47.0	14.2%
Cancer	5.0	1.5%
Cardiovascular	62.0	18.7%
Dermatological	0.0	0.0%
Diabetes	23.0	6.9%
Gastrointestinal	17.0	5.1%
HIV/AIDS	0.0	0.0%
Infectious (non-HIV)	0.0	0.0%
Musculoskeletal	63.0	19.0%
OB/GYN	9.0	2.7%
Psychiatric/Neurological	49.0	14.8%
Respiratory	19.0	5.7%
Sleep Disorders	7.0	2.1%
Urological	15.0	4.5%
Other	16.0	4.8%
Total	332.0	100.0%

Table 4-21. Age and Health Condition: Adult, Younger Elderly, and Older Elderly  
Central Characters

Age	Health Condition	Frequency	Percent
Adult (18-49)	Allergies	35.0	31.8%
	Cardiovascular	16.0	14.5%
	Diabetes	9.0	8.2%
	Musculoskeletal	15.0	13.6%
	Psychiatric/Neurological	29.0	26.4%
	Respiratory	6.0	5.5%
	Total	110.0	100.0%
Younger Elderly (50-64)	Allergies	3.0	3.6%
	Cardiovascular	30.0	35.7%
	Diabetes	10.0	11.9%
	Musculoskeletal	37.0	44.0%
	Psychiatric/Neurological	1.0	1.2%
	Respiratory	3.0	3.6%
	Total	84.0	100.0%
Older Elderly (65+)	Allergies	1.0	2.1%
	Cardiovascular	16.0	34.0%
	Diabetes	4.0	8.5%
	Musculoskeletal	11.0	23.4%
	Psychiatric/Neurological	12.0	25.5%
	Respiratory	3.0	6.4%
	Total	47.0	100.0%

$\chi^2 = 78.34$ , d.f. = 10, p = .00, n = 241

Table 4-22. Gender and Health Condition: Adult, Younger Elderly, and Older Elderly  
Central Characters

Gender	Health Condition	Frequency	Percent
Female	Allergies	25.0	16.2%
	Cardiovascular	24.0	15.6%
	Diabetes	13.0	8.4%
	Musculoskeletal	50.0	32.5%
	Psychiatric/Neurological	33.0	21.4%
	Respiratory	9.0	5.8%
	Total	154.0	100.0%
Male	Allergies	14.0	16.1%
	Cardiovascular	38.0	43.7%
	Diabetes	10.0	11.5%
	Musculoskeletal	13.0	14.9%
	Psychiatric/Neurological	9.0	10.3%
	Respiratory	3.0	3.4%
	Total	87.0	100.0%

$\chi^2 = 28.69$ , d.f. = 5, p = .00, n = 241

Table 4-23. Ethnicity and Health Condition: Adult, Younger Elderly, and Older Elderly Central Characters

Ethnicity	Health Condition	Frequency	Percent
Caucasian	Allergies	34.0	17.6%
	Cardiovascular	50.0	25.9%
	Diabetes	13.0	6.7%
	Musculoskeletal	50.0	25.9%
	Psychiatric/Neurological	37.0	19.2%
	Respiratory	9.0	4.7%
	Total	193.0	100.0%
Non-Caucasian	Allergies	5.0	10.4%
	Cardiovascular	12.0	25.0%
	Diabetes	10.0	20.8%
	Musculoskeletal	13.0	27.1%
	Psychiatric/Neurological	5.0	10.4%
	Respiratory	3.0	6.3%
	Total	48.0	100.0%

$\chi^2 = 11.15$ , d.f.= 5,  $p = .05$ ,  $n = 241$

Table 4-24. Tone Distribution: Central Characters

Tone	Frequency	Percent
Comedic	36.0	10.8%
Empowering	193.0	58.1%
Foreboding	60.0	18.1%
Neutral	43.0	13.0%
Total	332.0	100.0%

Table 4-25. Age and Tone: Adult, Younger Elderly, and Older Elderly Central Characters

Age	Tone	Frequency	Percent
Adult (18-49)	Comedic	17.0	12.1%
	Empowering	89.0	63.6%
	Foreboding	15.0	10.7%
	Neutral	19.0	13.6%
	Total	140.0	100.0%
Younger Elderly (50-64)	Comedic	5.0	4.7%
	Empowering	58.0	54.7%
	Foreboding	24.0	22.6%
	Neutral	19.0	17.9%
	Total	106.0	100.0%
Older Elderly (65+)	Comedic	8.0	14.0%
	Empowering	27.0	47.4%
	Foreboding	18.0	31.6%
	Neutral	4.0	7.0%
	Total	57.0	100.0%

$\chi^2 = 20.47$ , d.f.= 6,  $p = .00$ ,  $n = 303$

Table 4-26. Gender and Tone: Adult, Younger Elderly, and Older Elderly Central Characters

Gender	Tone	Frequency	Percent
Female	Comedic	14.0	7.2%
	Empowering	120.0	61.9%
	Foreboding	27.0	13.9%
	Neutral	33.0	17.0%
	Total	194.0	100.0%
Male	Comedic	16.0	14.7%
	Empowering	54.0	49.5%
	Foreboding	30.0	27.5%
	Neutral	9.0	8.3%
	Total	109.0	100.0%

$\chi^2 = 16.49$ , d.f.= 3,  $p = .00$ ,  $n = 303$

Table 4-27. Ethnicity and Tone: Adult, Younger Elderly, and Older Elderly Central Characters

Ethnicity	Tone	Frequency	Percent
Caucasian	Comedic	25.0	10.1%
	Empowering	139.0	56.0%
	Foreboding	48.0	19.4%
	Neutral	36.0	14.5%
	Total	248.0	100.0%
Non-Caucasian	Comedic	5.0	9.1%
	Empowering	35.0	63.6%
	Foreboding	9.0	16.4%
	Neutral	6.0	10.9%
	Total	55.0	100.0%

$\chi^2 = 1.13$ , d.f.= 3,  $p = .77$ ,  $n = 303$

Table 4-28. Theme Distribution: Central Characters

Theme	Frequency	Percent
Family	82.0	24.7%
Healthcare	8.0	2.4%
No Theme	61.0	18.4%
Recreational/Social	106.0	31.9%
Rest/Sleep	11.0	3.3%
Romantic/Sexual	32.0	9.6%
Work	21.0	6.3%
Other	11.0	3.3%
Total	332.0	100.0%

Table 4-29. Age and Theme: Adult, Younger Elderly, and Older Elderly Central Characters

Age	Theme	Frequency	Percent
Adult (18-49)	Family	27.0	20.1%
	No Theme	25.0	18.7%
	Recreational/Social	45.0	33.6%
	Rest/Sleep	10.0	7.5%
	Romantic/Sexual	16.0	11.9%
	Work	11.0	8.2%
	Total	134.0	100.0%
Younger Elderly (50-64)	Family	19.0	19.0%
	No Theme	25.0	25.0%
	Recreational/Social	34.0	34.0%
	Rest/Sleep	1.0	1.0%
	Romantic/Sexual	13.0	13.0%
	Work	8.0	8.0%
	Total	105.0	100.0%
Older Elderly (65+)	Family	24.0	43.6%
	No Theme	10.0	18.2%
	Recreational/Social	16.0	29.1%
	Rest/Sleep	0.0	0.0%
	Romantic/Sexual	3.0	5.5%
	Work	2.0	3.6%
	Total	55.0	100.0%

$\chi^2 = 24.33$ , d.f. = 10,  $p = .01$ ,  $n = 289$

Table 4-30. Gender and Theme: Adult, Younger Elderly, and Older Elderly Central Characters

Gender	Theme	Frequency	Percent
Female	Family	44.0	23.8%
	No Theme	46.0	24.9%
	Recreational/Social	59.0	31.9%
	Rest/Sleep	8.0	4.3%
	Romantic/Sexual	18.0	9.7%
	Work	10.0	5.4%
	Total	185.0	100.0%
Male	Family	26.0	25.0%
	No Theme	14.0	13.5%
	Recreational/Social	36.0	34.6%
	Rest/Sleep	3.0	2.9%
	Romantic/Sexual	14.0	13.5%
	Work	11.0	10.6%
	Total	104.0	100.0%

$\chi^2 = 8.01$ , d.f. = 5,  $p = .16$ ,  $n = 289$

Table 4-31. Ethnicity and Theme: Adult, Younger Elderly, and Older Elderly Central Characters

Ethnicity	Theme	Frequency	Percent
Caucasian	Family	57.0	23.9%
	No Theme	53.0	22.3%
	Recreational/Social	78.0	32.8%
	Rest/Sleep	11.0	4.6%
	Romantic/Sexual	20.0	8.4%
	Work	19.0	8.0%
	Total	238.0	100.0%
Non-Caucasian	Family	13.0	25.5%
	No Theme	7.0	13.7%
	Recreational/Social	17.0	33.3%
	Rest/Sleep	0.0	0.0%
	Romantic/Sexual	12.0	23.5%
	Work	2.0	3.9%
	Total	51.0	100.0%

$\chi^2 = 13.51$ , d.f.= 5,  $p = .02$ ,  $n = 289$

Table 4-32. Setting Distribution: Central Characters

Theme	Frequency	Percent
Home	55.0	16.6%
Hospital/Care-taking	1.0	0.3%
No Setting	82.0	24.7%
Office/Business	13.0	3.9%
Outdoors	123.0	37.0%
Other	58.0	17.5%
Total	332.0	100.0%

Table 4-33. Age and Setting: Adult, Younger Elderly, and Older Elderly Central Characters

Age	Setting	Frequency	Percent
Adult (18-49)	Home	27.0	24.8%
	No Setting	27.0	24.8%
	Office/Business	9.0	8.3%
	Outdoors	46.0	42.2%
	Total	109.0	100.0%
Younger Elderly (50-64)	Home	8.0	8.7%
	No Setting	34.0	37.0%
	Office/Business	2.0	2.2%
	Outdoors	48.0	52.2%
	Total	92.0	100.0%
Older Elderly (65+)	Home	9.0	17.6%
	No Setting	19.0	37.3%
	Office/Business	2.0	3.9%
	Outdoors	21.0	41.2%
	Total	51.0	100.0%

$\chi^2 = 15.46$ , d.f. = 6,  $p = .02$ ,  $n = 252$

Table 4-34. Gender and Setting: Adult, Younger Elderly, and Older Elderly Central Characters

Gender	Setting	Frequency	Percent
Female	Home	28.0	17.3%
	No Setting	55.0	34.0%
	Office/Business	10.0	6.2%
	Outdoors	69.0	42.6%
	Total	162.0	100.0%
Male	Home	16.0	17.8%
	No Setting	25.0	27.8%
	Office/Business	3.0	3.3%
	Outdoors	46.0	51.1%
	Total	90.0	100.0%

$\chi^2 = 2.53$ , d.f. = 3,  $p = .47$ ,  $n = 252$

Table 4-35. Ethnicity and Setting: Adult, Younger Elderly, and Older Elderly Central Characters

Ethnicity	Setting	Frequency	Percent
Caucasian	Home	36.0	17.6%
	No Setting	59.0	28.9%
	Office/Business	11.0	5.4%
	Outdoors	98.0	48.0%
	Total	204.0	100.0%
Non-Caucasian	Home	8.0	16.7%
	No Setting	21.0	43.8%
	Office/Business	2.0	4.2%
	Outdoors	17.0	35.4%
	Total	48.0	100.0%

$\chi^2 = 4.18$ , d.f. = 3, p = .24, n = 252

Table 4-36. Traits: Central Characters

Trait	Frequency	Percent
Active	76	22.9%
Adventurous	25	7.5%
Afraid	2	0.6%
Alert	274	82.5%
Altruistic	3	0.9%
Comical	26	7.8%
Curious	8	2.4%
Dependent	4	1.2%
Depressed	4	1.2%
Expert	17	5.1%
Family-oriented	60	18.1%
Forgetful	7	2.1%
Fragile	9	2.7%
Frustrated	40	12.0%
Future-oriented	14	4.2%
Happy	201	60.5%
Health-conscious	65	19.6%
Healthy	205	61.7%
Incapacitated	16	4.8%
Lively	13	3.9%
Mellow	23	6.9%
Naïve	4	1.2%
Nostalgic	1	0.3%
Nurturing	43	13.0%
Patriotic	2	0.6%
Productive	38	11.4%
Reminiscent	2	0.6%
Retired	3	0.9%
Sad	4	1.2%
Sexual	14	4.2%
Sick	49	14.8%
Skilled	24	7.2%
Sociable	101	30.4%
Strong	11	3.3%
Successful	177	53.3%
Tired	4	1.2%
Unsociable	3	0.9%
Wary	5	1.5%
Wealthy	5	1.5%
Well-informed	47	14.2%
Worried	15	4.5%

Note: Percentage column exceeds 100% because multiple traits can be present in a character.

Table 4-37. Factor Analysis: Stereotypes of Central Characters

Stereotype	Trait	N	Mean	Standard Deviation	Factor Loading	Eigenvalue
Picture Perfect	Alert	332	.23	.42	.60	3.60
	Happy	332	.61	.49	.66	
	Healthy	332	.62	.49	.66	
	Successful	332	.53	.50	.61	
	Uplifted	332	.12	.33	.84	
	Disease-free	332	.15	.36	.83	
Despondent	Depressed	332	.01	.11	.88	2.17
	Sad	332	.01	.11	.89	
	Tired	332	.01	.11	.48	
Virtuoso	Expert	332	.05	.22	.83	2.17
	Productive	332	.11	.32	.63	
	Skilled	332	.07	.26	.84	
Impaired	Forgetful	332	.02	.14	.83	2.01
	Fragile	332	.03	.16	.76	
	Worried	332	.05	.21	.69	
Health Advocate	Future-oriented	332	.04	.20	.74	1.60
	Health-conscious	332	.20	.40	.65	
	Well-informed	332	.14	.35	.51	

Table 4-38. Age and Level of the Despondent Stereotype: Central Characters

Age	N	Despondent Mean	Standard Deviation	<i>F</i>
Adult	140	.03	.13	1.27 (1, 195)
Older Elderly	57	.01	.01	
Total	197	.02	.11	

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 4-39. Age and Level of the Health Advocate Stereotype: Central Characters

Age	N	Health Advocate Mean	Standard Deviation	F
Child	29	.01 <sub>a</sub>	.06	
Adult	140	.09 <sub>a</sub>	.20	
Younger Elderly	106	.23 <sub>b</sub>	.28	
Older Elderly	57	.08 <sub>a</sub>	.16	
Total	332	.13	.23	
				13.44 <sup>***</sup> (3, 328)

Note: Means sharing the same subscripts are not significantly different from each other.  
 \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 4-40. Age and Level of the Impaired Stereotype: Central Characters

Age	N	Impaired Mean	Standard Deviation	F
Adult	140	.02 <sub>a</sub>	.10	
Younger Elderly	106	.01 <sub>a</sub>	.06	
Older Elderly	57	.11 <sub>b</sub>	.27	
Total	303	.03	.14	
				9.46 <sup>***</sup> (2, 300)

Note: Means sharing the same subscripts are not significantly different from each other.  
 \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 4-41. Age and Level of the Picture Perfect Stereotype: Central Characters

Age	N	Picture Perfect Mean	Standard Deviation	F
Child	29	.87 <sub>b</sub>	.26	
Adult	140	.63 <sub>a</sub>	.38	
Younger Elderly	106	.81 <sub>b</sub>	.21	
Older Elderly	57	.68 <sub>a</sub>	.27	
Total	332	.72	.32	
				10.10 <sup>***</sup> (3, 328)

Note: Means sharing the same subscripts are not significantly different from each other.  
 \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 4-42. Age and Level of the Virtuoso Stereotype: Central Characters

Age	N	Virtuoso Mean	Standard Deviation	<i>F</i>
Child	29	.11	.16	
Adult	140	.09	.22	
Younger Elderly	106	.08	.15	
Older Elderly	57	.08	.15	
Total	332	.08	.21	1.17 (3, 328)

Note: Means sharing the same subscripts are not significantly different from each other.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 4-43. Gender and Stereotype Level: Central Characters

Stereotype	Gender	N	Stereotype Mean	Standard Deviation	<i>T</i>
Despondent	Female	200	.02	.11	
	Male	132	.00	.03	
	Total	332			-1.59 (330)
Health Advocate	Female	200	.11	.20	
	Male	132	.15	.26	
	Total	332			1.62 (330)
Impaired	Female	200	.03	.11	
	Male	132	.04	.17	
	Total	332			.73 (330)
Picture Perfect	Female	200	.71	.33	
	Male	132	.73	.29	
	Total	332			.69 (330)
Virtuoso	Female	200	.06	.19	
	Male	132	.10	.24	
	Total	332			1.69 (330)

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 4-44. Ethnicity and Stereotype Level: Central Characters

Stereotype	Ethnicity	N	Stereotype Mean	Standard Deviation	T
Despondent	Caucasian	271	.01	.10	1.17 (330)
	Non-Caucasian	61	.00	.00	
	Total	332			
Health Advocate	Caucasian	271	.11	.22	-2.04* (330)
	Non-Caucasian	61	.18	.28	
	Total	332			
Impaired	Caucasian	271	.04	.15	1.62 (330)
	Non-Caucasian	61	.01	.04	
	Total	332			
Picture Perfect	Caucasian	271	.70	.33	-2.63** (330)
	Non-Caucasian	61	.81	.23	
	Total	332			
Virtuoso	Caucasian	271	.08	.22	.11 (330)
	Non-Caucasian	61	.08	.18	
	Total	332			

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 4-45. Occupational Status and Stereotype Level: Central Characters

Stereotype	Occupational Status	N	Stereotype Mean	Standard Deviation	<i>T</i>
Despondent	Not Working	294	.01	.09	.40 (330)
	Working	38	.02	.11	
	Total	332			
Health Advocate	Not Working	294	.11	.22	2.94** (330)
	Working	38	.23	.28	
	Total	332			
Impaired	Not Working	294	.03	.14	-.23 (330)
	Working	38	.03	.12	
	Total	332			
Picture Perfect	Not Working	294	.72	.32	.55 (330)
	Working	38	.75	.26	
	Total	332			
Virtuoso	Not Working	294	.02	.09	20.19*** (330)
	Working	38	.52	.34	
	Total	332			

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 4-46. Health Condition and Level of the Health Advocate Stereotype: Central Characters

Health Condition	N	Health Advocate Mean	Standard Deviation	<i>F</i>
Allergies	47	.01 <sub>a</sub>	.07	15.39*** (5, 264)
Cardiovascular	62	.24 <sub>b, c</sub>	.32	
Diabetes	23	.30 <sub>c</sub>	.06	
Musculoskeletal	63	.19 <sub>b</sub>	.21	
Psychiatric/Neurological	56	.01 <sub>a</sub>	.06	
Respiratory	19	.02 <sub>a</sub>	.08	
Total	270	.13	.23	

Note: Means sharing the same subscripts are not significantly different from each other.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 4-47. Health Condition and Level of the Impaired Stereotype: Central Characters

Health Condition	N	Impaired Mean	Standard Deviation	<i>F</i>
Diabetes	23	.03 <sub>a</sub>	.10	
Musculoskeletal	63	.02 <sub>a</sub>	.07	
Psychiatric/Neurological	56	.14 <sub>b</sub>	.29	
Respiratory	19	.04 <sub>a</sub>	.11	
Total	161	.06	.19	
				4.78 <sup>**</sup> (3, 157)

Note: Means sharing the same subscripts are not significantly different from each other.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 4-48. Health Condition and Level of the Picture Perfect Stereotype: Central Characters

Health Condition	N	Picture Perfect Mean	Standard Deviation	<i>F</i>
Allergies	47	.73 <sub>b</sub>	.40	
Cardiovascular	62	.65 <sub>a, b</sub>	.19	
Diabetes	23	.75 <sub>b, c</sub>	.27	
Musculoskeletal	63	.87 <sub>c</sub>	.18	
Psychiatric/Neurological	56	.61 <sub>a</sub>	.39	
Respiratory	19	.73 <sub>b</sub>	.36	
Total	270	.72	.31	
				5.17 <sup>***</sup> (5, 264)

Note: Means sharing the same subscripts are not significantly different from each other.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 4-49. Health Condition and Level of the Virtuoso Stereotype: Central Characters

Health Condition	N	Virtuoso Mean	Standard Deviation	<i>F</i>
Allergies	47	.02 <sub>a</sub>	.08	
Cardiovascular	62	.15 <sub>c, d</sub>	.31	
Diabetes	23	.03 <sub>a</sub>	.10	
Musculoskeletal	63	.13 <sub>b, c</sub>	.28	
Psychiatric/Neurological	56	.07 <sub>a, b</sub>	.13	
Respiratory	19	.02 <sub>a</sub>	.08	
Total	270	.09	.22	
				3.21 <sup>**</sup> (5, 264)

Note: Means sharing the same subscripts are not significantly different from each other.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 4-50. Tone and Level of the Despondent Stereotype: Central Characters

Tone	N	Despondent Mean	Standard Deviation	<i>F</i>
Comedic	36	.01	.06	
Empowering	193	.02	.11	
Foreboding	60	.01	.04	
Total	289	.01	.10	
				.39 (2, 286)

Note: Means sharing the same subscripts are not significantly different from each other.  
 \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 4-51. Tone and Level of the Health Advocate Stereotype: Central Characters

Tone	N	Health Advocate Mean	Standard Deviation	<i>F</i>
Empowering	193	.12	.22	
Foreboding	60	.18	.25	
Neutral	43	.16	.29	
Total	296	.14	.24	
				1.61 (2, 293)

Note: Means sharing the same subscripts are not significantly different from each other.  
 \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 4-52. Tone and Level of the Impaired Stereotype: Central Characters

Tone	N	Impaired Mean	Standard Deviation	<i>F</i>
Comedic	36	.02 <sub>a</sub>	.01	
Empowering	193	.02 <sub>a</sub>	.09	
Foreboding	60	.09 <sub>b</sub>	.03	
Neutral	43	.02 <sub>a</sub>	.01	
Total	332	.03	.14	
				5.41 <sup>***</sup> (3, 328)

Note: Means sharing the same subscripts are not significantly different from each other.  
 \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 4-53. Tone and Level of the Picture Perfect Stereotype: Central Characters

Tone	N	Picture Perfect Mean	Standard Deviation	<i>F</i>
Comedic	36	.56 <sub>a</sub>	.35	
Empowering	193	.82 <sub>b</sub>	.30	
Foreboding	60	.55 <sub>a</sub>	.19	
Neutral	43	.64 <sub>a</sub>	.33	
Total	332	.72	.32	
				19.04 <sup>***</sup> (3, 328)

Note: Means sharing the same subscripts are not significantly different from each other.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 4-54. Tone and Level of the Virtuoso Stereotype: Central Characters

Tone	N	Virtuoso Mean	Standard Deviation	<i>F</i>
Comedic	36	.01	.06	
Empowering	193	.09	.21	
Foreboding	60	.07	.20	
Neutral	43	.12	.28	
Total	332	.08	.21	
				1.85 (3, 328)

Note: Means sharing the same subscripts are not significantly different from each other.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 4-55. Theme and Level of the Despondent Stereotype: Central Characters

Theme	N	Despondent Mean	Standard Deviation	<i>F</i>
Family	82	.01	.08	
No Theme	61	.02	.13	
Recreational/Social	106	.01	.06	
Rest/Sleep	11	.06	.13	
Work	21	.03	.15	
Total	281	.01	.10	
				1.00 (4, 276)

Note: Means sharing the same subscripts are not significantly different from each other.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 4-56. Theme and Level of the Health Advocate Stereotype: Central Characters

Theme	N	Health Advocate Mean	Standard Deviation	<i>F</i>
Family	82	.10	.23	
No Theme	61	.13	.23	
Recreational/Social	106	.14	.21	
Rest/Sleep	11	.00	.00	
Romantic/Sexual	32	.14	.28	
Work	21	.14	.27	
Total	302	.13	.23	.32 (4, 297)

Note: Means sharing the same subscripts are not significantly different from each other.  
 \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 4-57. Theme and Level of the Impaired Stereotype: Central Characters

Theme	N	Impaired Mean	Standard Deviation	<i>F</i>
Family	82	.03 <sub>a</sub>	.13	
No Theme	61	.08 <sub>b</sub>	.24	
Recreational/Social	106	.01 <sub>a</sub>	.06	
Work	21	.05 <sub>a, b</sub>	.16	
Total	270	.04	.15	3.18* (3, 266)

Note: Means sharing the same subscripts are not significantly different from each other.  
 \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 4-58. Theme and Level of the Picture Perfect Stereotype: Central Characters

Theme	N	Picture Perfect Mean	Standard Deviation	<i>F</i>
Family	82	.73 <sub>a, b</sub>	.30	
No Theme	61	.63 <sub>a</sub>	.35	
Recreational/Social	106	.75 <sub>b, c</sub>	.31	
Rest/Sleep	11	.55 <sub>a</sub>	.33	
Romantic/Sexual	32	.86 <sub>c</sub>	.22	
Work	21	.68 <sub>a, b</sub>	.32	
Total	313	.72	.32	3.31** (5, 307)

Note: Means sharing the same subscripts are not significantly different from each other.  
 \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 4-59. Theme and Level of the Virtuoso Stereotype: Central Characters

Theme	N	Virtuoso Mean	Standard Deviation	<i>F</i>
Family	82	.02 <sub>a</sub>	.08	
No Theme	61	.04 <sub>a, b</sub>	.17	
Recreational/Social	106	.08 <sub>b</sub>	.20	
Work	21	.43 <sub>c</sub>	.34	
Total	270	.08	.21	
				29.74 <sup>***</sup> (3, 266)

Note: Means sharing the same subscripts are not significantly different from each other.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 4-60. Setting and Level of the Despondent Stereotype: Central Characters

Tone	N	Despondent Mean	Standard Deviation	<i>F</i>
Home	55	.03	.15	
Office/Business	13	.05	.18	
Total	68	.03	.15	
				.19 (1, 66)

Note: Means sharing the same subscripts are not significantly different from each other.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 4-61. Setting and Level of the Health Advocate Stereotype: Central Characters

Tone	N	Health Advocate Mean	Standard Deviation	<i>F</i>
Home	55	.07	.18	
No Setting	82	.12	.24	
Office/Business	13	.10	.21	
Outdoors	123	.16	.25	
Total	273	.13	.23	
				1.92 (3, 269)

Note: Means sharing the same subscripts are not significantly different from each other.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 4-62. Setting and Level of the Impaired Stereotype: Central Characters

Tone	N	Impaired Mean	Standard Deviation	<i>F</i>
Home	55	.02 <sub>a</sub>	.08	
No Setting	82	.07 <sub>b</sub>	.23	
Office/Business	13	.08 <sub>b</sub>	.20	
Outdoors	123	.01 <sub>a</sub>	.06	
Total	273	.03	.15	
				3.27* (3, 269)

Note: Means sharing the same subscripts are not significantly different from each other.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 4-63. Setting and Level of the Picture Perfect Stereotype: Central Characters

Tone	N	Picture Perfect Mean	Standard Deviation	<i>F</i>
Home	55	.67 <sub>a</sub>	.33	
No Setting	82	.69 <sub>a</sub>	.31	
Office/Business	13	.63 <sub>a</sub>	.36	
Outdoors	123	.80 <sub>b</sub>	.27	
Total	273	.73	.30	
				3.81** (3, 269)

Note: Means sharing the same subscripts are not significantly different from each other.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 4-64. Setting and Level of the Virtuoso Stereotype: Central Characters

Tone	N	Virtuoso Mean	Standard Deviation	<i>F</i>
Home	55	.04 <sub>a</sub>	.10	
No Setting	82	.04 <sub>a</sub>	.18	
Office/Business	13	.33 <sub>b</sub>	.36	
Outdoors	123	.07 <sub>a</sub>	.18	
Total	273	.06	.19	
				10.46*** (3, 269)

Note: Means sharing the same subscripts are not significantly different from each other.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

## CHAPTER 5 DISCUSSION

While previous content analyses (e.g., Cline & Young, 2004) analyzed characters in DTCA in terms of their basic demographic make-up (i.e., age, gender, and ethnicity), the present research went further, analyzing not only basic demographic traits, but also their relationships with each other. In addition, the present study broadened the scope of ad variables previously analyzed in DTCA beyond just health condition to include analyses of variables such as tone, setting, and theme, and then further illuminated the portrayals of characters in DTCA by analyzing the relationships between these ad variables and character demographics.

In addition, this study veered the previous line of research analyzing specific “stereotypes” of elderly characters in general advertising toward an analysis of stereotyping among characters in DTCA. Once specific stereotypes were identified, this study analyzed relationships between stereotypes and character demographics, as well as relationships between stereotypes and ad variables in order to round out the picture of character portrayals in DTCA. As it turned out, age was indeed the primary demographic variable in terms of impacting character portrayals. What follows, then, is a discussion of all findings as they relate to how characters are portrayed within the DTCA to which elderly consumers are heavily exposed.

### **Character’s Age**

The finding that older elderly characters were the least represented is not surprising in light of Cline & Young’s (2004) previous findings in DTCA, as well as the similar findings in general advertising (e.g., Lee et al., 2007) and dramatic television programming (e.g., Lauzen & Dozier, 2005). The extent of older elderly characters (age

65+) found in the present research, however, is considerably higher than what has been seen previously. Furthermore, when taking into account the sizable proportion of younger elderly characters (age 50-64) and combining this group with older elderly characters, the proportion of elderly characters observed in the present sample of DTCA grows to 42.3%, a figure that is much higher than what has been seen previously.

To illustrate, Cline & Young (2004) found that just 10.4% of DTC magazine ads featured older adults only, while 26.2% featured more than one generation. The rest of the ads observed by Cline & Young (2004) featured strictly adults or children only. This discrepancy can most likely be attributed to the magazines selected for sampling (an intended consequence of the sampling design), however.

Indeed, the present research is unique in that all magazines had either a predominant or high elderly readership, whereas the previously reported studies sampled from magazines/television programs with more general readership/viewership, thus resulting in smaller proportions of elderly characters. However, while there was found to be a greater degree of elderly representation in the current study than in previous research, the fact that the adult age group was still the most heavily represented despite the elderly-focused sampling design seems to indicate a bias towards the adult age group no matter the age of the intended audience.

After breaking the sample down to central characters, the observation that older elderly central characters outnumbered child central characters nearly 2-to-1 may best be explained by the finding of Bell et al. (2000) that the majority (98%) of DTC ads target people with the conditions the drugs are designed to treat. Thus, it is plausible

that, due to the magazines sampled from, more drugs designed to treat conditions that commonly afflict the elderly are advertised rather than drugs designed to treat conditions common among children. Not surprisingly, given the sheer number of characters belonging to the adult age group, Adult characters remained the most heavily represented among central characters, followed by younger elderly characters.

With regard to supporting characters, there was a drastic change in the representation of the child age group, with children constituting the majority of supporting characters. Clearly, the explanation for this finding is that child characters often fulfill the roles of children or grandchildren of characters representing those actually targeted by the ads. After children, adults were the next most prevalent supporting characters, followed by younger elderly and, lastly, older elderly characters, indicating an overall pattern that skews supporting characters towards younger age. It seems, then, that depicting older characters is desirable primarily when they are the focus of the ad and, presumably, older consumers are targeted.

### **Character's Gender**

As for gender, the finding that women were depicted more frequently than men in DTCA is consistent with previous literature (Cline & Young, 2004; Main et al., 2004) and supports the assertions of Bell et al. (2000) and Shah et al. (2003) that more DTC ads target women exclusively rather than men. Furthermore, with no significant differences between age and role, the female dominated nature of DTCA was seen in both central and supporting characters.

The present study, therefore, indicates that women continue to be the primary targets of DTCA despite being overshadowed by men in fictional television programming. This observation provides support for the assertion of Shah et al. (2003)

that females may be more attractive targets of DTCA due to their role as decision maker with regard to health care in American families, as well as having greater receptivity to medical attention compared to males. In addition, the tendency of women to be more avid magazine readers than men may influence decisions to depict females rather than males in magazine DTCA.

### **Character's Ethnicity**

The finding that Caucasian characters vastly outnumbered characters from any other ethnic group in DTCA (80.1% of all characters) is also consistent with prior research (e.g., Cline & Young, 2004; Maine et al., 2004) After Caucasian, the next most represented ethnicity was African American, followed by Hispanic, and Asian, which parallels the ethnic distribution pattern of characters in DTCA observed by Cline & Young (2004).

Focusing strictly on central characters, there was very little change in the proportions of ethnic groups, which seems to indicate that marketing efforts are primarily targeting Caucasians. Although the proportions shift slightly towards more ethnic diversity when analyzing exclusively supporting characters, Caucasian characters remain the overwhelming majority. Furthermore, even after combining non-Caucasian ethnicities into one category, there was no statistically significant relationship between ethnicity and role, illustrating a strong bias towards Caucasian characters, the reason for which is unclear.

### **Character's Demographic Relationships**

Analysis of relationships between basic demographic categories yielded only one significant finding, namely that, with the exception of the male-dominated, child age group, the majority of central characters across age groups were female. This

observation is not surprising in light of previous research displaying female dominance in DTCA. Thus, the numerous studies outside the realm of DTCA that observed more male than female characters serve to illuminate the uniqueness of DTCA in its bias toward female characters across age groups. Lacking in significant differences were relationships between age and ethnicity, as well as gender and ethnicity. It seems, then, that a decision to portray a character of a particular ethnicity has no bearing on decisions concerning the age or gender to be depicted.

### **Character's Occupational Status**

Regardless of age, gender, and ethnicity, the vast majority of characters in DTCA were not portrayed in a working capacity. This finding may indicate that pharmaceutical advertisers choose to emphasize the increased ability to become more active and/or bolster interpersonal relationships as a result of using the advertised product rather than benefits such as increased productivity in the workplace.

Although not statistically significant, it was found that older elderly characters were the least likely to be portrayed as working. This finding coincides with the diminished presence of older elderly characters in ads with a work theme and/or office/business setting. Indeed, older elderly characters were much less likely than the other age groups to appear in work-themed ads, and adult characters had the strongest association with an office/business setting, all of which indicates that younger people are more associated with employment and, thus, are more likely to be depicted in this way. It seems reasonable, therefore, to conclude that the oldest characters in DTCA were less likely to be portrayed as working because of the assumption that most people age 65 or older are retired. This notion is supported by Greenberg et al. (1980), who concluded

that the majority of employed characters on fictional television programming fell within the age range of 35-49.

Gender relationships were also observed with regard to occupational status, namely that male characters were significantly more likely to be portrayed in a working capacity than female characters and, while not statistically significant, there was a slightly greater proportion of males in work-themed ads. These findings are supported by Signorielli's (2004) observation that more males were portrayed as working than females in dramatic television programming and they shed light on the potential existence of a sexist attitude in DTCA in which males are more strongly associated with employment than females. Furthermore, while also not statistically significant, it was found that non-Caucasian characters were less likely to be portrayed as working than Caucasian characters, which may indicate that, along with sexism, a subtle racism exists regarding which characters are portrayed in a working capacity. The lack of statistical significance, however, makes any conclusions drawn from these present findings tentative at best, and warrants additional research in these areas.

### **Relationships between Character Demographics and Health Condition**

As for the relationships between character demographics and the intended health condition, the majority of the observed trends appear to be motivated by who is prone to a particular condition. Corroborating this assessment is that elderly characters (both older elderly and younger elderly) were found to be strongly associated with cardiovascular conditions and musculoskeletal conditions, which were also found to be associated with elderly characters by Cline & Young (2004). Although these conditions can affect younger people as well, there is clearly a stronger association with older age and susceptibility to these conditions. Furthermore, while it is not clear why there was a

particularly strong link between adult characters and allergies, allergies is a condition that is not associated exclusively with older age.

One interesting exception, however, is that the psychiatric/neurological condition category was infrequent among younger elderly characters despite being prevalent among adult and older elderly characters. It is possible, of course, that the discrepancy between younger elderly and older elderly characters is attributable to the presence of older elderly characters in ads for Alzheimer's treatments. The reason that younger elderly characters were practically nonexistent in ads for any type of psychiatric/neurological disorder, however, is unclear.

Like the majority of the aforementioned age-related trends, the relationships between male and female characters with particular health conditions were consistent with the observations of Cline & Young (2004) and seem to be generally motivated by which gender is more prone to the condition (e.g., women were linked to ads for musculoskeletal conditions and men were linked to ads for cardiovascular conditions). Of particular interest, however, is the targeting of women for psychiatric/neurological conditions, which seems to be less based on a predisposition to psychiatric/neurological conditions than either a perceived open-mindedness of women towards the psychiatric field, or, worse, a stereotypical view of women as more vulnerable to mental issues.

The link between non-Caucasian characters and the diabetes category was also observed by Cline & Young (2004) and is another trend that seems to be motivated by a genetic predisposition. However, the links between Caucasian characters and the psychiatric/neurological and allergies categories are less easy to explain, and may be

based not on genetics but on other discriminatory factors such as a perceived receptivity of Caucasians toward treatments of these condition types.

### **Relationships between Character Demographics and Tone**

Since “empowering” was the most prevalent tone overall, it is not surprising that it was the most prevalent tone for all age groups. Interestingly, the foreboding tone was more prevalent for younger elderly and older elderly characters than adult characters. The logical conclusion to be drawn from this observation is that advertisers make more of an attempt to frighten older consumers than younger consumers, presumably because older consumers are more prone to life-threatening conditions than younger consumers, and there might be a perception that older consumers have a stronger fear of death due to their more advanced age. Also of note is that a considerably larger proportion of older elderly characters (14.0%) appeared in comedic-toned ads than younger elderly characters (4.7%), leading to the conclusion that older elderly characters present more comedic possibilities for advertisers (perhaps in reference to their older age). Indeed, this notion is supported by the observation of Gerbner et al. (1980) that elderly characters were more likely to be assigned comedic roles than serious roles due to a stereotypical notion that elderly characters are prone to foolish and absent-minded behavior.

As for gender, while the empowering tone was by far the most prevalent for both male and female characters, the relationship of the empowering tone with females was considerably stronger than it was with males. Perhaps this is a result of the aforementioned conditions for which female characters were linked (musculoskeletal and psychiatric/neurological) compared to male characters (cardiovascular), with females generally portrayed as overcoming the physical and emotional limitations

imposed by the conditions with which they are afflicted. On the other hand, the link between male characters and foreboding-toned ads was greater than it was for female characters, which could be the result of male-associated cardiovascular conditions in which risks of heart attack, stroke, and even death are emphasized. Finally, the lack of any links between a particular tone and ethnicity indicates that only a character's age and/or gender might contribute to determining the tone of an ad.

### **Relationships between Character Demographics and Theme**

Aside from appearing less frequently in work-themed ads, there were other notable deviations of older elderly characters from the other age groups throughout theme categories. For instance, while the family theme was prevalent for all characters, there was a very strong relationship between older elderly characters and the family theme compared to the other age groups. It is likely that this reflects a greater suitability of older elderly characters in grandparent roles compared to younger elderly characters, which is a notion that coincides with the conclusions of Dail (1988) in his analysis of the elderly in family-oriented television programs. Furthermore, older elderly characters may have been more relegated to family-themed ads than adults and younger elderly characters because of the belief that appropriate scenarios for older elderly characters outside of a family theme are more limited.

Along these lines, older elderly characters were much less likely than the other age groups to appear in romantic /sexual-themed ads, which may be due to a stereotypical view that people of advanced age are nonsexual. Not relegated exclusively to family-themed ads, however, a substantial proportion of older elderly characters, along with adults and younger elderly characters, also appeared in recreational/social-themed ads (the most prevalent theme overall), thereby reinforcing

the notion that pharmaceutical advertisers have attempted to emphasize the increased ability of consumers to become more active and social as a result of using the advertised product.

With regard to gender, outside of the slightly greater presence of males in work-themed ads, the overall similarity in distributions of male and female characters across themes indicates that advertisers do not perceive any real differences in susceptibility to themes between male and female consumers, nor do they strongly link a particular gender with any specific themes in DTC advertising. A noteworthy deviation in the theme distribution pattern did occur, however, with regard to ethnicity in that there was a much stronger link between non-Caucasian characters and the romantic/sexual theme. While this observation is interesting, it lacks an obvious explanation.

### **Relationships between Character Demographics and Setting**

An exploration of character demographics and settings revealed a lack of statistically significant differences between genders and settings, as well as ethnicities and settings, indicating that a character's age is the primary demographic factor in influencing the setting. For instance, while the adult age group was the age group most strongly associated with an office/business setting, the adult age group was also the age group most strongly associated with a home setting. The reason for the relationship between adult characters and the home setting might be that pharmaceutical advertisers have placed an added emphasis on portraying elderly characters outside of the home in order to break the commonly held stereotype of elderly homebodies, whereas portraying adult characters in the home does not have this negative connotation. In addition, while outdoors was the most prevalent setting for all age groups, the finding that younger elderly characters had the strongest association with an

outdoors setting and the weakest association with a home setting further supports the assessment that pharmaceutical advertisers tend to intentionally present elderly characters in a more youthful, energetic fashion.

### **Stereotyping in DTCA**

Overall, five stereotypes were identified: Despondent, Impaired, Health Advocate, Picture Perfect, and Virtuoso. The Despondent and Impaired stereotypes, having been originally identified by Hummert et al. (1994) in their analysis of stereotyping of the elderly, are stereotypes that were previously associated with elderly people in a context outside of DTCA. Since they seem to capture the emotionally distressing and physically taxing aspects of being afflicted with an illness, it comes as no surprise that these negative stereotypes also appeared within the context of DTCA.

As for positive stereotypes identified in the present research, the Picture Perfect and Health Advocate stereotypes are comprised of traits found within Hummert et al.'s (1994) Golden Ager stereotype. The Picture Perfect and Health Advocate stereotypes emerged, however, as two similar yet distinct stereotypes. The Picture Perfect stereotype, for instance, represents the "picture of health," while the Health Advocate stereotype represents the type of individual who is advocating healthy habits either through suggestion or example. A Health Advocate, therefore, may or may not be a health professional. Indeed, both of these stereotypes seem to be well-suited to characters in DTCA, and are consistent with the extensive positive depictions of healthy and either physically or socially active characters in DTCA that were observed by Cline & Young (2004) and Frosch et al. (2007).

The Virtuoso stereotype, on the other hand, is the only one of the three positive stereotypes identified in the present research that doesn't seem to be directly health-

related or similar to one of the stereotypes identified by Hummert et al. (1994). The traits that comprise the Virtuoso stereotype hint more at the type of individual who is highly educated or trained, and perhaps excels in some particular area. It is worth noting, however, that the Virtuoso stereotype, like the Health Advocate stereotype, also seems suited to someone portraying a health professional.

### **Character's Age and Negative Stereotyping**

Considering that there were no significant differences between genders or ethnicities in terms of negative stereotyping, the sole determining demographic factor with regard to negative stereotyping seems to be a character's age. Indeed, although a similar relationship was not found with the Despondent stereotype, it was found that older elderly characters were the most likely to be portrayed as Impaired. This finding coincides with the observation of Miller et al. (2004) that the oldest characters in general advertising were the most commonly depicted according to negative stereotypes. It seems reasonable to presume, then, that more haggard and older-looking characters were used when the Impaired stereotype was portrayed, resulting in the present finding that the oldest age group was most closely linked to this particular stereotype in DTCA.

### **Ad Variables and Negative Stereotyping**

The health condition category that was found to be most strongly linked to the negative stereotypes was the psychiatric/neurological category, a category which featured substantial proportions of both older elderly characters and adults. Given the debilitating and emotionally distressing nature of psychiatric/neurological conditions, it is not surprising that pharmaceutical advertisers resort to Despondent and Impaired stereotypes when promoting treatments of these conditions as a means of connecting with the sufferings of potential consumers.

When it comes to tones associated with negative stereotyping in DTCA, a strong relationship was found between the foreboding tone and the impaired stereotype. Most likely, this relationship reflects that the foreboding tone, unlike other tones, often requires a character in poor condition so that the dangers of the condition can be emphasized.

Along these lines, it is probable that ads with an office/business setting featured despondent characters while ads with an outdoors setting did not because a character portrayed as despondent can be used to demonstrate the condition's interference at work, whereas outdoor settings primarily serve as venues for characters to display their increased vitality. Similarly, impaired characters were more often portrayed in an office/business setting than an outdoors setting. In addition, it makes sense that home settings featured despondent characters while outdoors settings did not because the home serves as an ideal setting for a despondent character who is shut off from the world rather than outside enjoying life.

### **Character's Age and Positive Stereotyping**

While non-Caucasian characters were more strongly linked to the Health Advocate and Picture Perfect stereotypes than Caucasian characters, this finding is likely due to the far fewer portrayals of non-Caucasian characters compared to Caucasian characters. Specifically, the comparatively small number of non-Caucasian characters seems to have resulted in a tendency towards consistent positive stereotyping because the lack of extensive portrayals unique to Caucasian characters presents fewer opportunities for both positive and negative stereotyping. Despite these differences between ethnicities, however, and considering that there were no significant differences between males and females for any of the five stereotypes, age seems to be the

primary demographic factor in determining both positive and negative stereotypical portrayals.

Since the Golden Ager stereotype was found to be the most prevalent stereotype for elderly characters in advertising among studies that borrowed stereotypes from Hummert et al. (1994) for their analysis (e.g., Miller et al., 2004; Lee et al., 2007), it is not surprising, then, that the present research found the Picture Perfect and Health Advocate stereotypes (both derived from traits comprising the Golden Ager stereotype) to have a strong relationship with the younger elderly age group in DTCA. Furthermore, the present findings that Younger elderly characters were the most likely to be portrayed as Health Advocates and Picture Perfect are similar to the finding of Miller et al. (2004) that “young-elderly” (age 60-74) characters were more closely linked to the Golden Ager stereotype than “old-elderly” (age 75+) characters in television advertising.

It seems likely, then, that younger elderly characters rather than older elderly characters were linked to the Health Advocate and Picture Perfect stereotypes because a comparatively more youthful appearance coincides with these stereotypes. Thus, regardless of the age these characters were intended to represent, they may appear to be younger in age due to their above average fitness, and wouldn't be coded as older elderly. Offered as support for this interpretation is the observation of Atkins et al. (1991) that, out of all characters age 50 or over in television commercials, it was common for actors to appear fifteen years younger than the age they were meant to portray, while also appearing highly active and good-looking. Therefore, in the case of DTCA, there is likely a strong motivation to present youthful, healthy-looking, and active individuals when depicting elderly characters.

Why adult characters were less likely to be portrayed as Health Advocates than younger elderly characters is unclear and may be due to sampling from magazines with high elderly readership. The reason child characters were linked to the Picture Perfect stereotype and Adult characters weren't, however, is also unclear.

### **Occupational Status and Positive Stereotyping**

The observation that working characters were more likely to be portrayed as Health Advocates than not working characters in DTCA seems intuitive when considering that Health Advocates may be personified as health professionals (e.g., doctors, nurses, therapists). Furthermore, in cases where characters are not health professionals, the link between working and being a health advocate may be that characters portrayed in any type of occupation become more credible sources of health information than those who are not working. It was also observed that working characters were much more likely to be portrayed as Virtuosos than not working characters, the explanation for which seems to be that Virtuoso characters might be health officials or characters of any occupation displaying prowess at his/her job.

### **Ad Variables and Positive Stereotyping**

All three of the positive stereotypes were found to have fairly straightforward relationships with various ad variables. For instance, the Health Advocate stereotype was linked with cardiovascular conditions, diabetes, and musculoskeletal conditions for the likely reason that, along with using the advertised product, overcoming these conditions requires living the healthy lifestyle that the Health Advocate stereotype emphasizes. In addition, the lack of Health Advocates in comedic-toned ads indicates that the health-conscious nature of health advocates makes them better suited to the more serious tones of empowering, foreboding, and neutral.

As for the Picture Perfect stereotype, it was found that the empowering tone featured more characters consistent with the Picture Perfect stereotype than any other stereotype. This makes sense when considering that depictions of Picture Perfect characters in ads can lead viewers to envision emulating these characters, which, in turn, contributes to the empowering tone. Also, the Picture Perfect stereotype was associated with the outdoors setting, which seems an ideal match when considering that outdoors is an excellent setting for conveying the healthy and well-adjusted nature of a character.

The virtuoso stereotype's relationships with the work and recreational/social themes were the most obvious relationships observed between character stereotypes and ad themes in DTCA. For example, it is probable that ads with a work theme were the most likely to feature characters portrayed as virtuosos because the act of working is an ideal vehicle for displaying the traits that comprise the virtuoso stereotype (i.e., expert, productive, skilled). After work-themed ads, ads with a recreational/social theme were the next most likely to feature characters portrayed as virtuosos, a relationship that is perfectly logical when considering that many recreational activities also present an opportunity to display expertise, skill, and productivity (e.g., climbing a mountaintop, surfing a wave). Lastly, it seems reasonable to deduce that ads with an office/business setting were most likely to feature characters portrayed as virtuosos because (as with the work theme) a depiction of the act of working is an ideal vehicle for displaying the traits that comprise the virtuoso stereotype.

### **Limitations of the Study**

While the magazines used for sampling were all associated with a substantial elderly readership, the selection of magazines was limited by availability. Even though

over half of head of household subscribers for each magazine title was age 50 or over, only two of the titles (AARP the Magazine and the Saturday Evening Post) specifically targeted older readers and, thus, older prescription drug consumers. It would have been ideal, therefore, to have sampled exclusively from magazines targeting only older readers in order to ensure that the sample of DTCA represented those ads created exclusively with older consumers in mind. With such a sample, it would be possible to say with even greater confidence that pharmaceutical advertisers are creating more ads featuring younger characters regardless of the older age of the target market.

Also, while my study was able to paint a picture of the DTCA to which elderly consumers are exposed, it does not assess its impact on the self-image of the elderly, nor does it assess the impact on the perceptions of younger people toward the elderly. In addition, without further research, it cannot assess the intent or effectiveness of the marketing strategies behind my study's observations. It is up to future research, then, to make such assessments.

### **Suggestions for Future Research**

Overall, despite the emergence of two negative stereotypes, characters of all ages were generally portrayed flatteringly and in a positive light throughout the DTCA analyzed in my study. However, when viewing my study's findings within the context of social cognitive theory, enough evidence was found to indicate that older elderly characters in particular were portrayed differently (sometimes less flatteringly) than younger characters, and they were the most strongly linked to negative stereotyping. In light of these findings, a further investigation assessing the actual impact that DTCA might have on the self-image of the elderly, as well as the perceptions of younger people toward the elderly is warranted.

Aside from age discrepancies, certain of the observed gender and ethnicity discrepancies warrant additional research, as well. For instance, despite the minimal amount of characters portrayed in working scenarios, more male than female and more Caucasian than non-Caucasian characters were depicted in a working capacity. While the finding that fewer older elderly characters were portrayed as working than characters from other age groups is not surprising, the gender and ethnicity discrepancies are surprising in that they hint at subtle forms of discrimination. As noted previously, however, the lack of statistical significance makes such claims extremely tentative. However, additional research is certainly warranted to either rule out or support the existence of such discrimination, and, if found to be justified, explore the motivations for such discrimination.

With regard to health conditions, the relationships that were found between psychiatric/neurological conditions and character demographics warrant additional research. Specifically, the lack of younger elderly characters in ads for psychiatric/neurological treatments is perplexing, as are the strong links of psychiatric/neurological conditions with female and Caucasian characters. Research assessing the perceived open-mindedness towards the psychiatric field/receptivity to treatments and vulnerability to mental issues for consumers of varying demographics may prove to be particularly enlightening when attempting to explain marketing objectives regarding treatments of psychiatric/neurological conditions, and assessing the impact such portrayals have on the self-image of targeted groups, as well as the stereotyping of targeted groups from outsiders.

## Conclusion

A thorough analysis of the DTCA to which elderly consumers are exposed revealed that, more so than any other variables analyzed, variations in the age of central characters seem to coincide with specific, consistent changes in stereotyping, as well as the overall makeup of ads. As for the amount of elderly characters (both younger elderly and older elderly) depicted in the present sample of DTCA, there was more than what has been seen previously. This finding is due to the present study's elderly-focused sampling design, and it indicates that pharmaceutical marketers do indeed put forth some effort to tailor ads to the target market by including more characters representative of the targeted age group. However, the fact that many more adult characters (ages 18-49) were found in these ads than any other age group indicates that pharmaceutical advertisers place a value on depicting younger-looking characters.

Along these lines, there were considerably more younger elderly than older elderly characters. What this distribution of character ages implies, then, is that pharmaceutical advertisers lean towards presenting younger characters in order to portray the qualities of health and vitality. Thus, particularly when it comes to consumers age 65 and over, it seems that pharmaceutical advertisers are performing a balancing act between portraying characters with which targeted consumers can directly identify and portraying more youthful characters to embody an ideal.

In light of this notion of idealized characters, it seems logical that the most prevalent categories overall for tone, theme, and setting were empowering, recreational/social, and outdoors, respectively. Indeed, these particular categories are appropriate for (and serve to enhance) a picture of the "ideal" individual (i.e., youthful, fit, and active). Even though characters of all age groups were found in ads with these

same tone, theme, and setting categories, it is noteworthy that deviations in the overall categorical trends for these ad variables were generally unique to older elderly characters.

While these deviations did not necessarily lead to unflattering character portrayals, they did, however, lead to portrayals that steered from the commonly depicted active and fit character, and from portrayals more associated with younger characters. A perfect example of this is that older elderly characters were most strongly tied to the family theme rather than the recreational/social theme like adult and younger elderly characters. Additionally, unlike adult and younger elderly characters, older elderly characters rarely appeared in romantic/sexual-themed ads.

While the depictions of younger elderly characters often mirrored those of adult characters, the strong link of both younger elderly and older elderly characters to foreboding-toned ads is a clear indication that pharmaceutical advertisers view consumers age 50 and over differently than younger consumers. Specifically, consumers beyond middle age are seemingly viewed as more susceptible to ads that prey on fears of complications and even death from illness. Certainly, younger characters also appeared in ads that were foreboding in tone, but older elderly characters were more prone to such depictions.

Accepting, then, that there were distinctions between portrayals of adult characters and characters from both of the elderly age groups, it is noteworthy that older age was found to be the primary determining factor in stereotypical portrayals. Interestingly, despite the similar list of health conditions linked to both younger elderly and older elderly characters, older elderly characters had the strongest link to the Impaired

stereotype while younger elderly characters were the most likely (even more so than adult characters) to be portrayed as either Picture Perfect or a Health Advocate.

Contrary to what initial impressions may imply, this dichotomy between younger elderly and older elderly characters in terms of positive vs. negative stereotyping indicates that pharmaceutical advertisers generally don't make distinctions between "younger elderly" and "older elderly" consumers when creating ads and identifying target markets, with the exceptions being in cases of conditions linked exclusively to the oldest consumers such as Alzheimer's. In other words, it may often be the case that all consumers age 50 and over are targeted with the same ads, with "younger elderly" characters depicted when emphasizing the positive effects of treatments and "older elderly" characters depicted when emphasizing the negative effects of the condition.

While this generalized marketing approach for consumers age 50+ does not apply in every instance, it makes sense that haggard and, thus, older-looking characters would often be used when the Impaired stereotype was portrayed, whereas a comparatively more youthful appearance stemming from above average fitness would generally describe characters consistent with the Picture Perfect stereotype in particular, but also the Health Advocate stereotype, as well. Therefore, regardless of the age that either negatively or positively stereotyped elderly characters were intended to represent/target, the ads may feature younger models in the case of positive stereotypes and older models in the case of negative stereotypes, making DTCA a venue that distorts reality toward a certain ideal in many cases, while other times not. Thus, depending on the specific ads to which consumers are exposed (particularly with

regard to elderly consumers), the character portrayals, and possible effects on self-image, may vary.

## APPENDIX A CODE BOOK

### **Health Condition**

Psychiatric/neurological disorders: The brand is intended to treat emotional and/or behavioral deviations from what is considered normal. Also can be intended to treat brain abnormalities (e.g., depression, alzheimers)

OB/GYN conditions: The brand is intended to treat anything pertaining to the female reproductive organs (e.g., birth control, menopause).

Allergies: The brand is intended to treat adverse reactions to the environment, usually to airborne particles like pollen or dust. Affected areas often include one or more of the following: nose, sinuses, and eyes.

Respiratory conditions: The brand is intended to treat any condition that affects the respiratory system (e.g., pneumonia, chronic obstructive pulmonary disease (COPD), and asthma).

Dermatological conditions: The brand is intended to treat any condition that affects the skin (e.g., acne, rosacea)

HIV/AIDS: The brand is a treatment specifically for managing the effects of or complications stemming from HIV/AIDS.

Cardiovascular conditions: The brand is intended to treat any diseases that involve the cardiovascular system (i.e., the heart or blood vessels) such as high blood pressure (hypertension) and clogged arteries.

Urological conditions: The brand is intended to treat any conditions pertaining to the urinary tract or the male reproductive organs (e.g., erectile dysfunction, prostatitis).

Infectious (non-HIV) diseases: The brand is intended to treat any communicable diseases that are not HIV/AIDS (e.g., herpes, strep throat)

Diabetes: The brand is specifically designed to treat or manage diabetes.

Musculoskeletal disorders: (e.g., arthritis, osteoporosis)

Sleep disorders: The brand is intended to treat any condition that causes disruption of sleep (e.g., insomnia)

Cancer: The brand is a treatment specifically for managing the effects of or complications stemming from cancer.

Gastrointestinal conditions: The brand is intended to treat any conditions pertaining to the gastrointestinal tract (i.e., the digestive system). Examples include ulcers, gastroesophageal reflux disease (GERD), and appendicitis.

## **Tone**

**Empowering:** The ad should be considered empowering in tone if the overall message emphasizes the positive effects of overcoming an illness. There are two ways in which this can be conveyed: (1) the visual depicts the central character(s) in an activity/situation that would not be possible if afflicted by the condition (e.g. jogging, enjoying the company of others) and the ad's copy reinforces (or at least does not contradict) the message conveyed by this depiction; or (2) the character is neither depicted as afflicted by the illness nor overcoming the illness but the ad's copy refers to the improvement in quality of life in a manner that positively appeals to the emotions (e.g., "This illness doesn't have to hold you back from enjoying life any longer," etc. ).

**Foreboding:** The ad should be considered foreboding in tone if the overall message emphasizes the potential negative consequences of the illness. This requires the presence of at least one of the following two criteria: (1) the visual depicts the central character(s) as afflicted by/suffering from the condition and/or (2) the ad's copy emphasizes the potential negative consequences of the illness. While a combination of both is possible, only one of these two criteria is required for an ad to be considered foreboding in tone.

**Comedic:** The ad should be considered comedic in tone if the overall message relies on humor. This requires the presence of at least one of the following two criteria: (1) the character(s) in the ad are depicted in a whimsical manner (e.g., performing harmless pranks, making funny faces); and/or (2) the ad's copy is intended to be humorous. While a combination of both is possible, only one of these two criteria is required for an to be considered comedic in tone.

**Neutral:** The ad should be considered neutral in tone if there are no characters depicted as afflicted by/suffering from the condition or overcoming the illness, and the ad's copy strictly lists factual information about the brand.

## **Setting**

**Home:** The setting of the ad is indoors at the domicile of one or more characters (e.g., a living room, dining room, or bedroom of a house, apartment, etc.).

**Outdoors:** The setting of the ad is anyplace outside (e.g. a front/back yard, nature trail, sports field, or swimming pool).

**Office/business:** The setting of the ad is at an indoor place of work of the central character(s) (e.g., a law firm, restaurant, sales department, or boardroom) that is not associated with treating patients (e.g., a hospital, doctor's office, or nursing home).

Hospital/care-taking: The setting of the ad is at a hospital or other facility intended for the treatment of patients (e.g., a doctor's office or nursing home).

No setting: The presentation of the character(s) found within the ad is amidst a nondescript backdrop (e.g., a blank/solid-colored background).

## **Theme**

Recreational/social: The ad should be considered to have a recreational/social theme if the portrayal of the character(s) within the ad primarily entails interacting with others on a friendship basis or involvement in entertainment (e.g., attending a play, hunting, sightseeing, and so on).

Family: The ad should be considered to have a family theme if the portrayal of the character(s) within the ad entails interacting with apparent relatives (e.g., birthday party, family dinner). The theme should still be considered family if the ad depicts a husband and wife in a nonromantic scenario (e.g., grocery shopping, sitting at home, or providing a testimonial about a nonsexual condition)

Work: The ad should be considered to have a work theme if the portrayal of the central character(s) within the ad entails performance of an occupation (e.g., waiting tables at a restaurant, teaching a class, etc.) or implied performance of an occupation through wearing a uniform or other work attire (e.g., a white lab coat, hard hat, police/fireman uniform).

Romantic/sexual: The ad should be considered to have a romantic/sexual theme if the portrayal of the character(s) within the ad entails displaying provocative mannerisms and/or attire (e.g. gazing at/embracing a partner, low-cut or form-fitting clothing). The theme should also be considered romantic/sexual if the ad depicts a date scenario between two characters or there is direct mention of sexual activity.

Healthcare: The ad should be considered to have a healthcare theme if the portrayal of the central character(s) within the ad entails being treated for a health condition (conversing with a doctor/nurse, sitting in a doctor's office/exam room) or being present in a place for assisted living (e.g., a retirement home).

Rest/sleep: The ad should be considered to have a rest/sleep theme if the portrayal of the character(s) entails relaxing without interacting with others (e.g., sitting in a lounge chair, lying in a hammock) or sleeping in bed. The character(s) can either be completely inactive or engaged in an activity typically associated with relaxation such as reading a book.

No theme: The ad should be considered to have no theme if the presentation of the character(s) is either in the foreground or background of the ad (e.g., an inset of a person providing a testimonial for a product).

## **Major Character**

A character is a major character if the character is a central or supporting character (i.e., plays a specific part in the scene/narrative of the ad). A major character cannot be depicted merely as a backdrop such as a meaningless face in a crowd.

## **Celebrity**

A character is a celebrity if he/she is a famous, real-life person.

## **Character's Age**

**Child:** The character should be considered a child if there is a direct mention of age 17 and under, a depiction of attending school at any level up to (but no higher than) high school, or if the character appears to be pre-pubescent.

**Adult:** The character should be considered an adult if there is a direct mention of age 18-49, or if the character appears to be physically mature and devoid of the physical signs of aging (e.g. wrinkling, gray/graying hair).

**Younger Elderly characters:** The character should be considered younger elderly if there is a direct mention of age 50-64, or if the character displays graying hair and/or hints of wrinkling of the face and hands.

**Older Elderly characters:** The following characteristics are representative of older elderly characters: a direct mention of age 65 or over, gray hair, extensive wrinkling of face and hands, use of an ambulatory aid, and a retired or grandparent reference. If there is a direct mention of age 65 or over, or if a character in an ad reflects any two of the other characteristics, the character should be considered older elderly.

## **Character's Occupational Category**

**Professional:** The occupation requires expertise in a specialized field not traditionally classified as white collar, blue collar, or as a law enforcement/rescue worker (e.g., doctor, lawyer, teacher, entertainer, athlete)

**White collar:** The occupation consists of office/administrative duties (e.g., managerial, secretarial, clerical)

**Blue collar:** The occupation requires manual labor (e.g., service, repair, labor)

**Law enforcement/ rescue worker:** The occupation requires enforcement of the law or rescuing people from harm (e.g., police officer, fireman, paramedic)

**Not working:** The character is not portrayed in a working capacity.

## **Character's Role**

**Central:** A character should be considered a central character if it is a character around which the ad is centered by being a primary focus (e.g., being afflicted by a condition, recovered from a condition, providing a testimonial about the condition/product). There can be any number of central characters.

**Supporting:** A character should be considered a supporting character if it is a character serving merely to enhance the depiction of a central character (e.g., child of central character, coworker of central character)

## **Traits**

**Active:** Is the character involved in an act of physical exertion (e.g., running, swimming)?

**Adventurous:** Is the character portrayed as taking or willing to take risks and/or engage in dangerous/exciting activities (e.g. an African safari, hang-gliding, motorcycle-riding, gambling)?

**Afraid:** Is the character depicted as having fear (e.g. cowering, hiding)?

**Alert:** Is the character depicted as observant, open-eyed, watchful, and/or wide-awake?

**Altruistic:** Is the character depicted as helpful and/or thoughtful of others for nonmonetary reasons (e.g., volunteering for a charity/service)?

**Angry:** Is the character portrayed as exhibiting extreme resentment as a result of provocation (e.g. scowling, shouting, threatening gestures)?

**Comical:** Is the character behaving in a whimsical manner (e.g., performing harmless pranks, making funny faces)

**Curious:** Is the character depicted as eager to learn or know (e.g., asking questions)?

**Dependent:** Is the character portrayed as requiring assistance in order to function (e.g. nurse, wheelchair, walker, cane)?

**Depressed:** Is the character depicted as despondent, with a dispirited expression on his/her face?

**Expert:** Is the character depicted as having expertise in any area (e.g., medicine, law)?

**Family-oriented:** Is the character portrayed as placing emphasis on family interaction and presence of family members in his/her life (e.g. family BBQ, birthday party)?

**Forgetful:** Is the character portrayed as unable to remember something (e.g., the names of his/her children, where something was placed)?

**Fragile:** Is the character physically or emotionally weakened, as from age or sickness (e.g., slowly walking)?

**Frustrated:** Is the character portrayed as disapproving of a circumstance (e.g., fed up with symptoms of an illness)?

**Future-oriented:** Does the character allude to upcoming goals (e.g., retirement)?

**Happy:** Is the character showing joy or pleasure (e.g. smiling emotively, twinkling in the eyes)?

**Health-conscious:** Is the character portrayed as maintaining a healthy lifestyle (e.g. healthy physical activities and/or diet)?

**Healthy:** Is the character depicted as being in an optimal physical/mental state for his or her apparent age (e.g. normal weight, ease of mobility, lack of distress)?

**Hypochondriac:** Is the character portrayed as having imaginary symptoms and ailments?

**Incapacitated:** Is the character portrayed as being prevented from doing something as a result of illness or other impairment (e.g., walk, go outside, work)?

**Incompetent:** Is the character portrayed as totally incapable of performing intended functions/tasks due to lack of skill or knowledge (e.g., poor performance at work)

**Lively:** Is the character portrayed as being animated in an exuberant fashion (e.g. jumping up and down, skipping, dancing)?

**Lonely:** Is the character portrayed as dejected by the awareness of being alone?

**Malicious:** Is the character portrayed as intending wrong-doing (e.g., lying, stealing, inflicting physical harm)?

**Mellow:** Is the character portrayed in a leisurely manner (e.g. lying in a hammock, sitting poolside, watching television, sleeping)?

**Naïve:** Is the character portrayed as being fooled or deceived in some way?

**Nostalgic:** Is the character portrayed as reflecting upon/discussing or longing for a period in the past (e.g. World War II, college years, courtship)?

**Nurturing:** Is the character portrayed as caring for/supporting someone else either physically or emotionally (e.g., feeding a child, comforting a person in distress)

Old-fashioned: Does the character display values associated with an earlier time, or a lack of modernization (e.g., chivalry, lack of technological savvy)?

Patriotic: Is the character depicted as supportive of his/her country (e.g., flying/saluting a flag)?

Poor: Is the character depicted as impoverished (e.g. tattered clothing)?

Productive: Is the character portrayed as generating an abundant output (e.g., filing a lot of paperwork, treating a lot of patients)?

Reminiscent: Does the character evoke the past in terms of fashion, language, culture, or technology (e.g. driving a Model-T Ford, etc.)?

Retired: Is the character portrayed as having reached the end of his/her career and no longer employed by his/her business or occupied by his/her profession?

Sad: Is the character portrayed as expressing sorrow (e.g. crying)?

Sedentary: Is the character depicted as generally inactive?

Sexual: Is the character displaying provocative mannerisms and/or attire (e.g. gazing at/embracing a partner, low-cut or form-fitting clothing)?

Sick: Is the character portrayed as suffering from a physical/mental illness (i.e., displaying symptoms of a condition)?

Skilled: Is the character displaying mastery of a specific task or craft (e.g. golf, art, cooking, practicing medicine)?

Sociable: Is the character portrayed as associating with others in a friendly manner (e.g., laughing, playing a game)?

Strong: Is the character depicted as physically powerful or robust (e.g., muscular, lifting a heavy object)?

Successful: Is the character portrayed as achieving a significant task (e.g. winning an award, overcoming an illness, a work-related accomplishment)?

Tired: Is the character portrayed as exhibiting exhaustion stemming from exertion, sleep-deprivation or fatigue?

Unsociable: Is the character portrayed as associating with others in an unfriendly manner (e.g., criticizing, physically distancing from others)?

Wary: Is the character portrayed as being on guard against danger (e.g., avoiding outdoors)?

Wealthy: Is the character depicted as possessing material wealth (e.g. a fancy office, country club-membership, expensive car, jewelry, business suit)?

Well-informed: Is the character depicted as possessing substantial knowledge about a particular topic (e.g. drug/illness facts)?

Worried: Is the character portrayed as feeling anxious (e.g., anticipating negative effects of an illness)?

APPENDIX B  
CODING SHEET

1. Coder name/ID: \_\_\_\_\_

2. Date of coding: \_\_\_\_\_

3. Magazine information

3.1. Magazine title: \_\_\_\_\_

3.2. Month and year of publication: \_\_\_\_\_

3.3. Page number (or page range) where the ad appears: \_\_\_\_\_

4. Brand advertised: \_\_\_\_\_

5. Intended health condition of brand:

- 1) Psychiatric/neurological disorders
- 2) OB/GYN conditions
- 3) Allergies
- 4) Respiratory conditions
- 5) Dermatological conditions
- 6) HIV/AIDs
- 7) Cardiovascular conditions
- 8) Urological conditions
- 9) Infectious (non-HIV) diseases
- 10) Diabetes
- 11) Musculoskeletal disorders
- 12) Sleep disorders
- 13) Cancer
- 14) Gastrointestinal conditions
- 88) Other. Specify \_\_\_\_\_
- 99) Cannot tell

6. What is the dominant tone of the ad?

- 1) Empowering
- 2) Foreboding
- 3) Comedic
- 4) Neutral
- 88) Other. Specify \_\_\_\_\_
- 99) Cannot tell

7. Where is the setting of the ad?

- 1) Home
- 2) Outdoors
- 3) Office/business
- 4) Hospital/care-taking
- 5) No setting
- 88) Other. Specify \_\_\_\_\_
- 99) Cannot tell

8. What is the dominant theme of the ad?

- 1) Recreational/social
- 2) Family
- 3) Work
- 4) Romantic/sexual
- 5) Healthcare
- 6) Rest/sleep
- 7) No theme
- 88) Other. Specify \_\_\_\_\_
- 99) Cannot tell

## Models/Characters

9. How many major characters are present in the ad? \_\_\_\_\_

*Each major character must be coded separately. Assign a number for each major character and provide a brief description for the purpose of character differentiation. Questions 11 through 65 pertain to the character identified in this question (Q.10).*

10. Character # \_\_\_\_\_

Description: \_\_\_\_\_

11. Is the character a celebrity?

1) Yes

Name of celebrity: \_\_\_\_\_

2) No

99) Cannot tell

12. What is the character's age category?

1) Child

2) Adult

3) Younger elderly

4) Older elderly

99) Cannot tell

13. What is the character's gender?

1) Male

2) Female

99) Cannot tell

14. What is the character's ethnicity?

1) Caucasian

2) African American

3) Hispanic

4) Asian

88) Other. Specify \_\_\_\_\_

99) Cannot tell

15. What is the character's occupational category?

1) Professional

2) White collar

3) Blue collar

4) Law enforcement/ rescue worker

5) Not working

88) Other. Specify \_\_\_\_\_

99) Cannot tell

16. What is the role of the character?

1) Central

2) Supporting

99) Cannot tell

*End coding for this character if the answer to Q.16 is either (2) Supporting or (99) Cannot tell.*

*For questions 17-65, indicate whether the character displays the corresponding trait. Place either a (1) for Yes; a (2) for No; or a (99) for Cannot tell.*

- |                          |                           |                         |
|--------------------------|---------------------------|-------------------------|
| 17. Active _____         | 34. Health-conscious ____ | 50. Reminiscent _____   |
| 18. Adventurous _____    | 35. Healthy _____         | 51. Retired _____       |
| 19. Afraid _____         | 36. Hypochondriac ____    | 52. Sad _____           |
| 20. Alert _____          | 37. Incapacitated_____    | 53. Sedentary _____     |
| 21. Altruistic _____     | 38. Incompetent _____     | 54. Sexual _____        |
| 22. Angry _____          | 39. Lively _____          | 55. Sick_____           |
| 23. Comical _____        | 40. Lonely _____          | 56. Skilled _____       |
| 24. Curious _____        | 41. Malicious_____        | 57. Sociable _____      |
| 25. Dependent _____      | 42. Mellow _____          | 58. Strong _____        |
| 26. Depressed _____      | 43. Naïve _____           | 59. Successful _____    |
| 27. Expert _____         | 44. Nostalgic _____       | 60. Tired _____         |
| 28. Family-oriented ____ | 45. Nurturing_____        | 61. Unsociable_____     |
| 29. Forgetful_____       | 46. Old-fashioned _____   | 62. Wary _____          |
| 30. Fragile _____        | 47. Patriotic _____       | 63. Wealthy _____       |
| 31. Frustrated _____     | 48. Poor _____            | 64. Well-informed _____ |
| 32. Future-oriented ____ | 49. Productive _____      | 65. Worried _____       |
| 33. Happy _____          |                           |                         |

## LIST OF REFERENCES

- Atkins, V.T., Jenkins, M.C., & Perkins, M.H. (1991). Portrayal of persons in television commercials age 50 and older. *Psychology, A Journal of Human Behavior*, 27(4), 30-37.
- Bandura, A. (2001). Social cognitive theory of mass communication. *Mediapsychology*, 3, 265-299.
- Baukas, R. (2004). Commentary: DTC advertising. *Journal of Health Communication*, 9, 563-564.
- Bell, J. (1992). In search of a discourse on aging: The elderly on television. *The Gerontologist*, 32 (3), 305-311.
- Bell, R.A., Kravitz, R.L., & Wilkes, M.S. (2000). Direct-to-consumer prescription drug advertising, 1989-1998. *The Journal of Family Practice*, 49 (4), 329-335.
- Bell, R.A., Wilkes, M.S., & Kravitz, R.L. (2000). The educational value of consumer-targeted prescription drug print advertising. *The Journal of Family Practice*, 49(12), 1092-1098.
- Bramlett-Solomon, S. & Subramanian, G. (1999). Nowhere near picture perfect: Images of the elderly in life and ebony magazine ads, 1990-1997. *Journalism & Mass Communication Quarterly*, 76(3), 565-572.
- Cline, R.J. & Young, H.N. (2004). Marketing drugs, marketing health care relationships: A content analysis of visual cues in direct-to-consumer prescription drug advertising. *Health Communication*, 16(2), 131-157.
- Dail, P.W. (1988). Prime-time television portrayals of older adults in the context of family life. *The Gerontologist*, 28(5), 700-706.
- Frosch, D.L., Krueger, P.M., Hornik, R.C., Cronholm, P.F., & Barg, F.K. (2007). Creating demand for prescription drugs: A content analysis of television direct-to-consumer advertising. *Annals of Family Medicine*, 5(1), 6-13.
- Gantz, W., Gartenberg, H.M., & Rainbow, C.K. (1980). Approaching invisibility: The portrayal of the elderly in magazine advertisements. *Journal of Communication*, 30(1), 56-60.
- Gerbner, G., Gross, L., Signorielli, N., & Morgan, M. (1980). Aging with television: Images on television drama and conceptions of social reality. *Journal of Communication*, 30(1), 37-47.
- Greenberg, B.S., Korzenny, F., & Atkin, C.K. (1979). The portrayal of the aging. *Research on Aging*, 1(3), 319-334.

- Greenberg, B.S., Simmons, K.W., Hogan, L., & Atkin, C. (1980). Three seasons of television characters: A demographic analysis. *Journal of Broadcasting*, 24(1), 49-60.
- Holsti, O.R. (1969). *Content analysis for the social sciences and humanities*. Reading, MA: Addison-Wesley Publishing.
- Hummert, M.L. (1990). Multiple stereotypes of elderly and young adults: A comparison of structure and evaluations. *Psychology and Aging*, 5(2), 182-193.
- Hummert, M.L., Garstka, T.A., Shaner, J.L., & Strahm, S. (1994). Stereotypes of the elderly held by young, middle-aged, and elderly adults. *Journal of Gerontology*, 49(5), 240-249.
- Ingram, R.W. (1983). The importance of state accounting practices for creditor decisions. *Journal of Accounting and Public Policy*, 2, 5-17.
- Kaphingst, K.A., Dejong, W., Rudd, R.E., & Daltroy, L.H. (2004). A content analysis of direct-to-consumer television prescription drug advertisements. *Journal of Health Communication*, 9, 515-528.
- Kim, J. & Mueller, C. (1978). *Factor analysis: Statistical methods and practical issues*. Thousand Oaks, CA: Sage Publications
- Kim, J. Nie, N., & Verba, S. (1977). A note on factor analyzing dichotomous variables: The case of political participation. *Political Methodology*, 39-62.
- Krippendorff, K. (2004). *Content analysis: An introduction to its methodology*. Thousand Oaks, CA: Sage Publications.
- Lauzen, M.M. & Dozier, D.M. (2005). Recognition and respect revisited: portrayals of age and gender in prime-time television. *Mass Communication & Society*, 8(3), 241-256.
- Lee, M.M., Carpenter, B., & Meyers, L.S. (2007). Representations of older adults in television advertisements. *Journal of Aging Studies*, 21, 23-30.
- Macias, W. & Lewis, L.S. (2004). A content analysis of direct-to-consumer (dtc) prescription drug web sites. *Journal of Advertising*, 32(4), 43-56.
- Maine, K.J., Argo, J.J., & Huhmann, B.A. (2004). Pharmaceutical advertising in the usa: Information or influence?. *International Journal of Advertising*, 23, 119-142.
- Miller, D.W., Leyell, T.S., & Mazachek, J. (2004). Stereotypes of the elderly in u.s. television commercials from the 1950s to the 1990s. *International Journal of Aging and Human Development*, 58(4), 315-340.

- Neuendorf, K.A. (2002). *The content analysis guidebook*. Thousand Oaks, CA: Sage Publications.
- Percy, L., Ketchum, MacLeod, & Grove (1976). An argument in support of ordinary factor analysis of dichotomous variables. *Advances in Consumer Research*, 3, 143-148.
- Pinto, M.B. (2000). On the nature and properties of appeals used in direct-to-consumer advertising of prescription drugs. *Psychological Reports*, 86, 597-607.
- Roth, M.S. (2003). Media and message effects on dtc prescription drug print advertising awareness. *Journal of Advertising Research*, 43, 180-193.
- Roy, A. & Harwood, J. (1997). Underrepresented, positively portrayed: Older adults in television commercials. *Journal of Applied Communication Research*, 25, 39-56.
- Shah, M.S., Holmes, E.R., & Dessell, S.P. (2003). The use of persuasion in print dtc advertisements of prescription drugs: A content analysis of leading consumer magazines from 1995-2000. *Journal of Pharmaceutical Marketing & Management*, 153(3), 23-43.
- Signorielli, N. (2004). Aging on television: Messages relating to gender, race, and occupation in prime time. *Journal of Broadcasting & Electronic Media*, 48(2), 279-301.
- Signorielli, N. & Bacue, A. (1999). Recognition and respect: A content analysis of prime-time television characters across three decades. *Sex Roles*, 40(718), 527-544.
- Sumpradit, N., Ascione, F.J., & Bagozzi, R.P. (2004). A cross-media content analysis of motivational themes in direct-to-consumer prescription drug advertising. *Clinical Therapeutics*, 26(1), 135-154.
- Swayne, L.E. & Greco, A.J. (1987). The portrayal of older Americans in television commercials. *Journal of Advertising*, 16(1), 47-54.
- Ursic, A.C., Ursic, M.L., & Ursic, V.L. (1986). A longitudinal study of the use of the elderly in magazine advertising. *Journal of Consumer Research*, 13, 131-133.
- Weber, R.P. (1990). *Basic content analysis*. Newbury Park, CA: Sage Publications.
- Wilkes, M.S., Bell, R.A., & Kravitz, R.L. (2000). Direct-to-consumer prescription drug advertising: Trends, impact, and implications. *Health Affairs*, 19(2), 110-128.
- Woloshin, S., Schwartz, L.M., Tremmel, J. & Welch, H.G. (2001). Direct-to-consumer advertisements for prescription drugs: What are Americans being sold?. *The Lancet*, 358, 1141-1146.

## BIOGRAPHICAL SKETCH

Christopher Michael Massicot graduated with a Master of Advertising from the University of Florida in the summer of 2011. Prior to attending the University of Florida, he obtained a B.A. in Psychology from the University of Cincinnati. After graduation, he plans to work in the advertising field where he can use his educational background in both psychology and advertising to facilitate his insight into consumer behavior and perform the job of account planner.