

EFFECT OF MESSAGE TYPE AND SOURCE IN ADVOCACY COMMUNICATION:  
INVESTIGATING MESSAGE STRATEGIES TO COMBAT AGEISM

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## **ABSTRACT**

TERRI ANN BAILEY: Effect of Message Type and Source in Advocacy Communication:  
Investigating Message Strategies to Combat Ageism  
(Under the direction of Rhonda Gibson)

This experimental research study investigated the effects that message type and source similarity in mass media messages have on attitudes toward older adults among college-age students. The purpose of the study was to investigate public relations message strategies that can be employed to combat negative stereotypes that stigmatize a social group, in this case older adults. Due to the large population of aging baby boomers, efforts to combat prejudice and discrimination against older adults—termed ageism—has particular importance for age organizations striving to enhance the overall quality of life for older adults.

Three types of message appeal conditions (cognitive, affective, and mixed cognitive/affective) were presented in a simulated Yahoo.com online news article. The simulated news article was designed to reflect a published press release that was disseminated to the media by an age organization striving to combat typically held negative stereotypes of people over age 65. A supplemental experiment manipulated a source variable based on similarity (same-age college student source versus older-age source) to investigate possible effect of source similarity on positively changing attitudes toward older adults.

The results showed that presenting fact-based cognitive arguments supported by research evidence was a more effective message strategy for producing positive attitude change toward older adults among 200 undergraduate students than were affective messages based on emotional appeals, subjective personal evaluations, and compassionate arguments or

a combination of cognitive and affective appeals. Furthermore, results indicated the importance of mass media messages in terms of producing positive attitude change toward older adults. There was significant positive attitude change toward older adults after exposure to the stimulus materials in both the immediate and time-delayed (one week) conditions.

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## ABBREVIATIONS

ANOVA	Analysis of variance
ASD	Aging semantic differential
ELM	Elaboration likelihood model
SIT	Social identity theory

## CHAPTER 1

### INTRODUCTION

Ageism—prejudice or discrimination toward people simply because they are old—can be considered a new diversity issue, parallel to racism and sexism (Barrow & Smith, 1979; Gearing, 1995; Hendricks & Henricks, 1986; Hillier & Barrow, 1999; Isaacs & Bearison, 1986; Palmore, 2001). This prejudice toward older people manifests itself in negative attitudes and stereotypes that can adversely impact peoples' perceptions of older adults and lead to viewing older adults as pejoratively different from the rest of the population. Furthermore, negative attitudes and stereotypes can lead to treating older individuals differently than younger people. But perhaps even more damaging is the fact that commonly held negative stereotypes and myths of aging can adversely affect the psychological well-being of older adults themselves when such stereotypes are internalized. Research has found that older individuals who are exposed to negative age stereotypes demonstrate worse memory performance, self-efficacy, handwriting, and will-to-live than those who are not (Levy, 2001). A related finding is that internalization of negative stereotypes of aging can diminish life expectancy by an average of 7.5 years (Levy, Slade, Kunkel, Kasl, & Stanislav, 2002).

With a major population shift toward an older America occurring as the 78 million baby boomers head toward retirement,<sup>1</sup> looking at the role strategic organizational

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<sup>1</sup> Baby boomers are the generation born from 1946 to 1964; in 2008, the baby boomers are 44 to 62 years old.

communication can play in effecting positive attitude change toward older adults is timely and salient. As of 2005, approximately one in every eight, or 12.4%, of the American population is an older adult (age 65 or older) (Administration on Aging, 2005). According to the U.S. Census Bureau, by the year 2010, one in five adults will be 65 years old, and by the year 2025, 20% of Americans will be over age 65 (APA Online, 2007).

This experimental research study addressed the effects that message type and source similarity have on attitudes toward older adults among college-age students. The purpose of this study was to investigate effective message strategies that can be employed to combat negative stereotypes that stigmatize a social group. The specific issue addressed in this study is ageism, and prescriptive measures for effectively combating that “ism” in corporate communications have direct implications for a number of organizations committed to opposing ageism (for example, AARP, the American Society on Aging, the Gerontological Society of America, the Gray Panthers, the National Council on the Aging, the National Council of Senior Citizens, and the National Institute on Aging). However, it is possible that the findings of this study can be applied to effective organizational communication—i.e., brochures, Web site content, press releases, etc.—that advocate for positive social change regarding a number of diversity issues.

This study investigated the effects of three types of message appeals (cognitive, affective, and mixed cognitive/affective) presented in a simulated Yahoo.com online news article. The simulated news article was designed to reflect a published press release that was disseminated to the media with the objective of attempting to positively change attitudes toward older persons. A source variable based on similarity (same-age college student source versus older-age source) was also investigated in terms of effectiveness in positively changing

attitudes toward older adults.

While there have been studies investigating the persuasive influence of cognitive versus affective messages in producing attitude change in the fields of psychology, political communication, and advertising, there have been few related to organizational communication strategies from a public relations perspective. In addition, when studies have investigated affective versus cognitive appeals, they have tended to take an either/or comparative approach rather than include mixed cognitive-affective appeals. By adding in a mixed cognitive-affective message, this study tests current theoretical thought (i.e., Chaudhuri & Buck, 1992; Fourie & Froneman, 2005; Marcus, 2000; Rosselli, Skelly, & Mackie, 1995; Vakratsas & Ambler, 1999) that information processing toward attitude change is more likely based on a combination of affective and cognitive processing than a strict binary of one or the other.

Furthermore, few research studies have investigated persuasive message strategies in terms of improving the social identity of marginalized groups, particularly from a public relations perspective. Advocacy messages that strive to improve societal values in willingness to accept difference among groups, such as those tested in the current research study, can be construed as positive advocacy persuasion in public relations. For example, Barnett (2005) reports that “for organizations engaged in social activism, news releases serve yet another purpose: They challenge ideologies or dominant social viewpoints” (pp. 341-342). Similarly, the relatively new critical public relations perspective calls for an understanding of how advocacy communications can play a role in transforming discourse on an issue (Motion & Weaver, 2005). Specific to the issue of ageism, Longino (2005) asks what happened to the sense of advocacy that motivated the Gray Panthers in the late 1970s. He argues that the

major gerontology organizations today need to embrace that same sense of advocacy to combat ageism. Furthermore Palmore (1998), a leading scholar in the issue of ageism, states, “We have not been adequately educating our students *and the public* [emphasis added] about aging, a most basic process that affects every individual and group” (p. 44).

Research that has been done on attitudes toward the aged and educational interventions show that learning more about positive aspects of aging contributes to positive attitude change (Dail & Johnson, 1985; Durand, Roff, & Klemmack, 1981; O’Hanlon & Brookover, 2002). In other words, knowledge of aging is a predictor of positive attitudes toward older persons (Gellis, Sherman, & Lawrence, 1981; Linn & Zeppa, 1987; O’Hanlon, Camp, & Osofsky, 1993). The majority of studies investigated the effects that classroom or seminar-styled education had on positively changing attitudes toward the aged; this study broadens this body of research by addressing education directed at the general public through non-classroom interventions, that is mass media messages. Advocacy communications from aging organizations can be considered one important means of mass communication utilized to educate the public to enhance attitudes toward older adults.

One theoretical framework the current study draws upon in regard to effectiveness of different types of persuasive messages is the elaboration likelihood model (ELM) developed by Petty and Cacioppo (1986). The ELM comes close to providing a general framework and has been used in research comparing cognitive and affective appeals (discussed in detail later). It is a dual-process cognitive model that provides for two routes to processing persuasive information—the central route and the peripheral route. Predictions of which route will be used are based primarily on the audience’s involvement with the issue. With high involvement in the message subject, the audience will process on the central route, relying on

the strength and quality of argument (strong cognitive components). With low involvement, the path switches to the peripheral route, with reliance on heuristics and peripheral cues (possibly more affective components). While the ELM does not specifically designate processing based on peripheral cues as “affective” (it is a cognitive model, after all), affective processing may be able to be *implied* in the peripheral route. The ELM thus can be used to provide a predictive framework, based primarily on audience involvement with the issue of old age, for whether a cognitive appeal (equating with the central route) or an affective appeal (equating with the peripheral route) will be most efficient in producing desired attitude change.

This study also draws on social identity theory (SIT). Social identity theory is a social psychology theory that emphasizes group membership as a determinant of identity. In the broadest of terms, social identity theory posits that members of groups strive to achieve or maintain positive distinctiveness largely by making favorable comparisons between their group (ingroup) and relevant other groups (outgroups) (Tajfel & Turner, 1986). But that does not mean that all groups will have favorable social identities. For example, because of the favoritism of youth over old age in our society, the social group of “young” is imbued with positive distinctiveness in direct comparison with negative characteristics that are placed upon “old.” Tajfel (1981) argued that categorization and negative stereotyping of a generally less-favorable group (such as older adults) result from intergroup comparisons that justify those negative stereotypes (for instance, being younger is better because of physical agility, vibrancy, lack of deterioration, etc.).

Following social identity theory’s means of combating a negative social identity—that of social competition wherein the views of outgroup members’ are changed toward the

marginalized ingroup—the current study uses a published press release (the Yahoo.com news article) to persuade college-aged students (the outgroup, those who are not old) to form more favorable attitudes toward older adults (the ingroup, those who are old). This method of social competition ties in directly with social identity theory’s perspective that in order for members of a subordinate or marginalized group to enhance their social identity, they must persuade *those who do not belong to their group* (outgroups) to change negative views towards them. Advocacy messages directed to young adults thus represent a valuable means of attempting to change negative social identity associated with “being old.” Targeting favorable messages about older adults to younger persons has been evidenced in AARP’s recent intergenerational ad campaign “Future Champions” (AARP, n.d.) and the Gray Panther’s longtime mission of intergenerational communication (“Age and Youth in Action”) (Gray Panthers, n.d.).

The question of how to increase cultural sensitivity to marginalized groups can be approached more specifically by answering what makes a persuasive campaign message most effective for an outgroup audience. What would be the best appeal for organizational communication (such as brochures, pamphlets, Web site content, and press releases) to fight ageism and improve the social identity of older adults? This study aims to answer that question in terms of the comparative effectiveness of affective, cognitive, and mixed affective/cognitive appeals and source similarity in communication designed to positively change younger adults’ attitudes toward the aged. This study will provide insights into persuasion and attitude change that are applicable in formulating strategic message plans for organizations with a vested interest in reducing prejudice against people simply because they are old. This type of advocacy communication can be adopted by organizations interested in

changing a number of “isms” that bestow negative social identities on marginalized groups; the ultimate purpose in such communication is to bring about positive societal change in regard to issues of difference. In the process of persuading, messages such as those investigated in this research study serve the function of informing and educating the public in the most efficient way possible to combat ideologically accepted prejudices. As Hiller and Barrow (1999) point out, negative attitudes toward growing old damage psychological well-being and lead society to shun older people. They conclude, “Ageism is a destructive force for both society and the individual” (p. 16).

### **Overview of the Literature Review**

The literature review chapter covers several conceptual areas related to this research study. The first section covers the concept of ageism—how it is defined, how it is manifested in prejudice and negative stereotyping, and how it has been measured as an attitude construct. In addition, research that suggests that younger persons generally hold negative attitudes toward older adults and that education about aging can improve attitudes toward older adults is presented. While discrimination against older adults is a component of ageism, the emphasis in this section is on the prejudicial aspect of ageism stemming from negative stereotyping because of the relevance to mass communication.

The next section in the literature review addresses one theoretical basis for this study, social identity theory. Social identity theory serves to explain the motivation behind certain groups downgrading other groups that are different (in this case younger persons disparaging older persons). The section on social identity theory presents the development of the theory, its basic tenets, and unique challenges to this theory presented by ageism. In addition, means by which a marginalized group can work to change attitudes toward their group are also



discussed. This is particularly important to the current study that uses a mass-communicated message to try to improve attitudes one group (young adults) holds toward a different group (older adults).

While social identity theory provides the “why” and “how” of intergroup prejudice, along with prescriptions for changing intergroup attitudes, the other theoretical framework used in this study—the elaboration likelihood model (ELM)—provides information on what type of message would be most efficient in producing attitude change. Before delving into the ELM, however, explication of affective, cognitive, and mixed affective-cognitive messages in persuasion is presented to operationalize these terms and to provide research on their relative effectiveness. Findings from research on cognitive, affective, and mixed cognitive-affective messages presented in this chapter provide alternative predictions from the ELM as to which message type would be most persuasive. The ELM is presented in detail as one way of construing the different conditions for, and outcomes of, processing of persuasive messages either cognitively or affectively. This section serves as the bases for the research question and hypotheses in this study.

The last section of the literature review covers the concept of source similarity and previous research in this area. Incorporating this research into social identity theory provides the basis for the final hypothesis regarding effectiveness of source similarity based on age.

## CHAPTER 2

### LITERATURE REVIEW

#### Ageism

Psychiatrist and gerontologist Robert N. Butler<sup>2</sup> (1969) coined the neologism “ageism” to describe “a deep seated uneasiness on the part of the young and middle-aged—a personal revulsion to and distaste for growing old, disease, disability; and fear of powerlessness, ‘uselessness,’ and death” (p. 243). Butler argued that ageism described the subjective experience implied in a generation gap. Three decades later, Butler would describe ageism more broadly and succinctly as “a systematic stereotyping of and discrimination against people simply because they are old, just as racism and sexism accomplish this with skin color and gender” (Butler, 2002). The latter definition has been used extensively, but variations in defining ageism have resulted from the complex nature of this concept. In 2005, Butler stated:

Over the years, my conception of ageism has continued to evolve. I have come to understand that it is more than images, words, actions, or attitudes. It is deeply embedded in society in many areas. I think there has been some reduction in personal ageist attitudes. As people have become more sensitive to race and gender prejudice, perhaps they have also redefined their attitudes about older people. But we [still] have a very long way to go. (p. 86)

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<sup>2</sup>Robert Butler was the first director of the National Institute on Aging.

## Defining Ageism

The most frequently used and broadest definition of ageism is that of prejudice and discrimination based on age. Palmore<sup>3</sup> (2001), a noted sociologist specializing in social gerontology at Duke University, spoke of ageism as the “ultimate prejudice, the last discrimination [after racism and sexism], the cruelest rejection” (p.572). It has similarly been defined as the biased and unfavorable attitudes people hold of aging adults (Montepare & Zebrowitz, 2002) and as negative attitudes or behaviors toward an individual (Greenberg, Schimel, & Martens, 2002). Polizzi and Millikin (2002) define ageism as “stereotyping of old people based on constrained expectations, roles, and behaviors” (p. 368).

What becomes evident is that there are varying applications of criteria such as prejudice, attitudes, behavior, and discrimination in defining ageism. Palmore (2005a) breaks down definitions that have been given of ageism according to which components are used. His compilation includes one-part definitions of ageism as simply prejudice against (or association of negative traits with) older people. Two-component definitions represent ageism as comprising both attitudes (prejudice) and behavior (discrimination). Three-component definitions follow the traditional tripartite attitude components, i.e., beliefs (cognitive), feelings (affective), and discrimination (behavior) against older adults. Because the interest in this study is with communication research, the discrimination<sup>4</sup> aspect of ageism will not be discussed; it no less remains a key component of the concept of ageism overall.

Adding complexity, prejudice based on age can apply to the young as well as to the old (Giles & Reid, 2005; Greenberg et al., 2002; Hillier & Barrow, 1999). In addition,

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<sup>3</sup> Erdman Palmore has served as president of the Southern Gerontological Society, written or edited 16 books, and published more than 100 article or chapters in journals and other books. He currently serves as professor emeritus of medical sociology at Duke University.

<sup>4</sup>Aspects of discrimination include public policy, legislation, housing, health care, and employment issues.

attitudes and stereotypes toward a person of a particular age can be either positive or negative (Kite, Stockdale, Whitley, Jr., & Johnson, 2005; Levy, 2001; Palmore, 1990; Schmidt & Bolan, 1986). For the purposes of this paper, ageism will be limited to negative attitudes toward older adults.

### **The Multi-dimensionality of Ageism**

Explicating ageism becomes even more complicated when the definitional characteristics become more detailed, for example when the causes of ageism are considered. The original published definition by Butler<sup>5</sup> (1969) appeared to demonstrate a search for what would best capture the essence of the concept along with its causes: “A deep seated uneasiness on the part of the young and middle-aged—a personal revulsion to and distaste for growing old, disease, disability; and fear of powerlessness, ‘uselessness,’ and death” (p. 243). A four-element grouping of the causes of ageism in the U.S. includes 1) a fear of death, 2) an emphasis on youth culture, 3) an emphasis on productivity, and 4) the manner in which aging was originally studied (elderly subjects in nursing homes) (Woolf, 1998). Hiller and Barrow (1999) argue that ageism reflects the “Detroit Syndrome” wherein older cars are devalued and considered obsolete; “Older people suffer the potential for being managed like surplus commodities: devalued and discounted” (p.15).

The multi-dimensional nature of the concept surfaces in descriptive comparisons made to ageism. For example, at the Senate Special Committee on Aging held in 2002, Butler (2002, para. 5) argued that “ageism should be considered a psycho-social disease.” Levy, a Yale University specialist on chronic diseases and a frequent researcher on aspects of ageism,

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<sup>5</sup>Butler actually first used the term ageism in 1968 when he was serving as chairman of the Washington, D.C. Advisory Committee on Aging. Specifically, he used the term during an interview with *The Washington Post* to describe the opposition against the purchase of land for public housing for the elderly.

defined ageism as a virus that disparages, ridicules, and undervalues older people because of their age (Friedman, 2002). Ageism has been articulated as a wide-spread negative social condition (Hillier & Barrow, 1999), a subjective experience implied in the generation gap (Butler, 1969), a North American fascination with youth and the superiority of youth over old (Bethea, 2001; Kite & Wagner, 2002), and as a fear of death (Butler, 1969; Martens, Goldenberg, & Greenberg, 2005). Hendricks and Hendricks (1986) explain ageism as a “national prejudice” resulting from the emphasis on productive capacity and technological expertise, and a “thinly veiled attempt to avoid the reality that we will all one day grow old and die” (p. 35).

Bytheway (1995), a founding member of the British Society of Gerontology, tried to establish a working definition of ageism in his book, *Ageism*, by first noting beliefs that originate in biological variation between people due to the aging process and the actions of corporations that manifest ageism. Those, in turn, produced the consequences of his working definition as follows:

- (a) Ageism generates and reinforces a fear and denigration of the ageing process, and stereotyping presumptions regarding competence and the need for protection.
- (b) In particular, ageism legitimates the use of chronological age to mark out classes of people who are systematically denied resources and opportunities that others enjoy, and who suffer the consequences of such denigration, ranging from well-meaning patronage to unambiguous vilification. (p. 14)

Even though prejudice and discrimination against the aged serve as the umbrella descriptors of ageism, the concept has been more narrowly explained depending on the theoretical approach that is taken as well. For example, when deriving a theoretical

perspective of ageism based on terror management theory, the core of ageism becomes the fear of death (Martens et al., 2005). Employing social role theory proposes that attitudes toward the elderly are determined in large part by the roles the elderly occupy (Hummert, 1999). Taking a social identity theory perspective, ageism exists because one group of the population strives to delineate itself as superior to another group (youth favored over old) (Bethea, 2002).

A cultural studies perspective investigates ageism as a cultural construction resulting from a dominant ideology—those beliefs and values that a society or culture accepts as the normal way things are—that favors youth while simultaneously fixing negative attributes on the experience of aging and marginalizing older adults (Bytheway, 1995; Falk & Falk, 1997; Featherstone & Wernick, 1995; Friedan, 1993; Gergen & Gergen, 2000; Hockey & James, 2003; Loetterle, 1994). Gergen and Gergen (2000), professors of psychology, suggest that “the dominant culture of meaning-makers in our society marginalizes older adults through the longstanding binary of ‘old’ versus ‘young’ and the traditional privileging of the latter over the former” (p. 291).

In terms of providing a concise and all-inclusive definition of this complex concept, Bytheway (1995, p. 13) summarizes, “There is something excessively didactic about attempting to coin ‘the definitive definition’ of a concept such as ageism.”

### **Disciplinary Progression**

The seminal location for addressing ageism academically was gerontology. By 2001, the journal *The Gerontologist* would devote an entire issue to ageism as would the journal *Generations* in 2005. However, the concept of ageism has emerged over its relatively short academic life as extremely multidisciplinary and multifaceted (Giles & Reid, 2005; Palmore,

2003). Scholars from different areas—the humanities, gerontology, psychology, and communications, for instance—have employed the concept of ageism when investigating a variety of issues from governmental policy to intergenerational personal communication. One indication of the movement of ageism from gerontology into other disciplines was the devotion of the 2005 issue of the *Journal of Social Issues* entirely to the topic of ageism. The articles appearing in that issue showed cross-disciplinary approaches to ageism with both quantitative and qualitative research and varying theoretical perspectives (Giles & Reid, 2005).

## **Manifestations of Prejudice**

### **Negative attitudes**

If we agree to define ageism parsimoniously for the purposes of this study as prejudice against a person based on his/her older age, it then becomes helpful to look at the subcategories contained in prejudice. One such category is attitude, which has been measured using the traditional attitude tripartite model comprised of affective, cognitive, and behavioral components (Kite & Wagner, 2002; Millar & Millar, 1990; Severin & Tankard, Jr., 2001). Attitudes are basically predispositions toward objects (tangible and intangible); the cognitive component is comprised of a person's beliefs or thoughts about the attitude object while the affective component consists of feelings about the attitude object. At the core of definitions of attitude is the notion of evaluation; attitudes can be viewed as summary evaluations of objects (including oneself, other people, issues, etc.) that span a continuum from favorable to unfavorable (Petty, Priester, & Brinol, 2002; Petty, Wegener, & Fabrigar, 1997; Severin & Tankard, Jr., 2001).

Direct attitudes toward older people have been measured by statements grouped

into categories such as personality traits and physical characteristics (Tuckman and Lorge, 1952) and polar adjectives grouped by three stereotypic dimensions (instrumental-ineffective, autonomous-dependent, and personal acceptability-unacceptability) (Aging Semantic Differential, Rosencranz & McNevin, 1969). Indirect attitudes have been measured by knowledge scales where bias against the elderly is implied in erroneous assumptions about aged persons relating to health, sexual activity, competence, mental capacity, and other dimensions [Facts on Aging Quiz (Palmore, 1977, 1998); Kogan Attitudes Toward Old People Scale (Kogan, 1961)].

### **Negative stereotypes**

Another dimension of prejudice that is frequently employed in measuring ageism is the use of negative stereotypes, often co-mingled with attitude. It is difficult to separate attitudes from stereotypes because many of the attitude assessment or indirect attitude assessment (knowledge) scales used in ageism research are constructed based on negative or positive stereotype statements with which subjects will either agree or disagree.

Stereotyping has been explained as a cognitive process that helps to simplify through categorization (Tajfel, 1969). Tajfel explains that stereotypes “introduce simplicity and order where there is complexity and nearly random variation” (p. 82). The problem with stereotyping is that it can be inaccurate, and the simplification process of granting like characteristics to entire groups of people ignores realities of unique differences. Furthermore, strongly held stereotypes tend to emphasize only a few characteristics of a group while ignoring other inconsistent characteristics (Hiller and Barrow, 1999).

Focusing on negative stereotypes of the aged, we see the same multi-dimensionality evidenced in measuring attitudes; there are a myriad of stereotypes



specified in a multitude of studies and papers. Negative stereotypes of older adults have included older people being considered despondent, severely impaired, or shrew-like (Hummert, Garstka, & Shaner, 1997); as old-fashioned, underproductive, idle, passive, insecure, unfriendly, intolerant, and sad (Rosencranz & McNevin, 1969); as senile, rigid in thought and manner, and unskilled (Cohen, 2001); as traditional and hard of hearing (Kite & Wagner, 2002); as lonely and depressed (Whitbourne & Sneed, 2002); as complaining and belligerent (Giles & Reid, 2005); as sexually inactive and forgetful (Schmidt & Boland, 1986), as lacking vitality, being boring, and unable to learn or change (Thorton, 2002); and as being unattractive, temperamental, and suffering from mental decline (Hareven, 1995). The fundamental problem with such stereotypes is the view they encompass that older adults are “somehow different from our present and future selves and therefore not subject to the same desires, concerns, or fears” (Hendricks & Hendricks, 1986).

Perhaps the most broadly based index, and one that is cited often in the literature on ageism, of negative stereotypes against the elderly is Palmore’s (1990) list of nine major stereotypes. These stereotypes portray elders as being sick or disabled; impotent and unromantic; unattractive; unable to learn or in mental decline; senile or mentally ill; useless or unable to work effectively; isolated and non-social; poor; and miserable or depressed. Palmore provides evidence that refutes these negative stereotypes, as do several other studies combating myths of aging and depicting the reality of aging as a time in life for good health, usefulness, mental and physical activity, work, social relationships, financial security, and happiness (Abramson & Silverstein, 2006; DeLong & Associates, 2006; Department of Families, 2002; Hendricks & Hendricks, 1986; Louis Harris & Associates, 1974; Mitchell, 2006).

Because it would be impossible to attempt to combat every negative stereotype of aging in the stimulus materials used in this study, focus was placed specifically on combating the negative stereotypes of older persons as useless/non-productive and as miserable/depressed. The dimension of competence (reflected in the negative stereotype of useless/non-productive) is a pivotal factor from psychological research in attitudes toward the aged (Cuddy & Fiske, 2002) and represents one of the factor dimensions from the Aging Semantic Differential (Rosencranz & McNevin, 1969). Furthermore, in a meta analysis of studies comparing attitudes toward older adults with those toward younger persons, one dimension that displayed the highest difference with a negative bias toward older adults was that of competence (Kite and Johnson, 1988). The negative stereotype of older adults as miserable/depressed actually encompasses several components of other stereotypes, the belief being that it would be impossible to be happy when living an isolated life and suffering from mental and physical decline.

### **Research on Ageist Attitudes and Stereotypes**

Generally, most studies of attitudes toward, and negative stereotyping of, aging have shown a pessimistic view of older age (Levy and Banaji, 2002; Polizzi and Millikin, 2002; Robinson and Umphrey, 2006; Stuart-Hamilton, 1999). As early as 1953 two scholars who created one of the original instruments for measuring attitudes toward the elderly, Jacob Tuckman and Irving Lorge (1953), reported that graduate student respondents looked upon old age as a time in life characterized by economic insecurity, poor health, loneliness, resistance to change, and failing physical and mental powers. Their summary was that this type of ageism was especially telling when the subjects were well-educated and had shown an interest in the problems of older adults in registering for a course covering that topic. The

National Council on Aging commissioned an extensive study conducted in 1977, and repeated in 1981, to assess the public's attitude toward aging. Among the 4,250 interviewed in 1977 and the 3,427 polled in 1981 by Louis Harris and Associates, younger respondents (18-64 years old) believed more strongly than respondents aged 65 and older that old age was a time of "very serious problems" (National Council on Aging, 1981). Furthermore, in a meta analysis of studies that appeared as of December 1985 comparing attitudes toward older adults with those toward younger persons, Kite and Johnson (1988) found that older people were judged more negatively than younger people across all evaluative dimensions.

The majority of research regarding attitudes toward older adults has been conducted on college students involved in fields of study that will lead to careers working with older adults in some capacity, i.e. nursing, medical, social work, and gerontology. The academic journal *Educational Gerontology* publishes many of these of studies. As mentioned in the introduction, the findings from such studies have shown that learning more about positive aspects of aging contributes to positive attitude change (Dail & Johnson, 1985; Durand, & Klemmack, 1981; O'Hanlon & Brookover, 2002). In other words, knowledge of aging is a predictor of positive attitudes toward older persons (Gellis, et al., 1981; Linn & Zeppa, 1987; O'Hanlon, et al., 1993). In a book summarizing more than a decade of research using the Facts on Aging Quiz in over 150 research studies, Palmore (1998) reported that the main findings from those studies were that most people do not know much about aging and most of their misconceptions reveal negative stereotypes about older people.

Beyond the impact of knowledge of aging on attitudes toward older people, other studies have focused on age itself as a variable affecting attitudes toward older persons. For example, one study found that younger graduate students were more likely to hold

unfavorable attitudes toward older adults (as measured by the Aging Semantic Differential, Rosencranz & McNevin, 1969) than were older graduate students. Another study found that in general, older subjects (64-85 years old ) had more positive attitude scores on the Aging Semantic Differential than did younger groups (17-30 and 31-53 years old (O’Hanlon, et al., 1993). A study by Robinson and Umphrey (2006) presented both positive and negative images of older people in advertisements to younger persons (entering freshman at a private university, age 17 to 20) and found that they tended to view negative images as normal for older people. Their results indicated that respondents appeared to rely on negative stereotypes they hold of older people when making judgments about the effects the negative advertising images would have on older persons.

### **Other Considerations in Assessing Ageism**

Elements addressed in the study of ageism also include social roles, labeling, and even what is not there. Examples of negative labels of older adults would be “geezer,” “old fogey,” “old maid,” and “dirty old man” (Robinson, 1994). Even the use of “elderly” as a noun can be considered pejorative by some, according to the *Publication Manual of the American Psychological Association* (American Psychological Association, 2001). An example of a social role that can be considered negative against the elderly is retirement when people in that role are viewed as non-productive and a drain on societal resources (Falk & Falk, 1997; Kite et al., 2005). It is important to note that ageism is not limited to the explicit; indeed, aspects of ageism can be measured in terms of what is absent. For example, one of the key findings in cultivation research done on television portrayals of the elderly was the *lack* of elderly characters (Friedan, 1993; Gerbner, Gross, Signorelli, & Morgan, 1980; Signorielli, 2004). Under-representation of older adults—whether in television roles, advertisements,

topics covered by the press, etc.—signifies ageism through ignoring and neglecting a population group.

### **Defining Old**

One additional complexity of explicating ageism, if the definition employed is prejudice against the old, is specifying what constitutes “old.” There is no consensus on what signifies “old” (Hillier & Barrow, 1999; Kite & Wagner, 2002). Old age can be defined chronologically, biologically, psychologically or socially, and the entry points vary (Treguer, 2002). Many use age 65 as the entry into old age because it corresponds to the traditional age of retirement in the U.S. (Louis Harris & Associates, 1974; Myers, 1990). Due to increases in longevity, however, others argue that the entry into old age is much later (Hillier & Barrow, 1999; Nuessel, 1992). Moving in the opposite direction, many have defined “old” as culturally and seminally situated in middle age (Gullette, 1997; Hepworth & Featherstone, 1982; Shweder, 1998). From an advertising standpoint, “old” has been defined as 50 or older because it exceeds the advertising main target group of 18-49 year olds (Treguer, 2002; Ostroff, 1989). Furthermore, research has shown that definitions of when a person is considered old depends on who, including older people themselves, is making the judgment (Gerbner, 2002). On the one hand, young people tend to view the entry into old age as happening earlier than older people do. Older people, on the other hand, tend to have a cognitive age (an age they feel they are) approximately ten years younger than their chronological age (Stephens, 1991; Van Auken, Barry, & Anderson, 1993).

Encompassing all the variation, Gullette (1998) has posited “old” as the time when a person realizes he or she is no longer young. Levy and Banaji (2002) suggest “old” be defined as when a person is perceived to be old, and Levin and Levin (1980) similarly argue that a

person is old in our society when he or she is defined as such by the dominant forces in society.

For the purposes of this study, older adults are defined as adults over age 65.

### **Racism, Sexism, and Ageism**

One way to grasp the concept of ageism is to parallel it to racism and sexism (Barrow & Smith, 1979; Gearing, 1995; Hendricks & Henricks, 1986; Hillier & Barrow, 1999; Isaacs & Bearison, 1986; Palmore, 2001). Indeed, people tend to categorize others primarily on three dimensions: age, race, and sex (Kunda, 1999). As early as 1969, Butler (1969) posited that ageism might equal racism as the great issue for the next few decades. Sexism, however, intervened as the next big issue, and thereafter, ageism has been called the third “ism” after racism and sexism or likened to racism and sexism. Palmore (2005b) reports that his extensive career researching ageism had its roots in his prior research on racism.

While there are benefits in comparing ageism with racism and sexism, it would be imprudent to consider ageism the same as the other two. One particular difference is that age is not a category into which people are born, such as gender or race. Everyone in the world may become a target of ageism if they live long enough (Capowski, 1994; Palmore, 2001; Palmore, 2003). Secondly, perhaps because of the relatively new attention to ageism, ageism is subtle and may go unrecognized (Capowski, 1994). In contrast to stereotypes based on sexism or racism, in the United States ageism can be more openly expressed, or even condoned (Kleyman, 2002; Nelson, 2002).

Another difference between ageism and racism/sexism is that the former has not had nearly as much theoretical or empirical academic attention (Palmore, 2001; Giles & Reid, 2005). An example of this comes from Nelson’s (2002) investigation of the PsychInfo

database for number of articles that resulted from searches using the key terms “racism,” “sexism,” and “ageism.” The results showed 2,215 articles for the search term “racism,” 1,085 articles for the search term “sexism,” yet only 215 articles for the search term “ageism.” Part of the reason for a general lack of ageism studies in mass communication may be because a concise theory of ageism has yet to be developed (Gullette, 1998). Furthermore, until two decades ago, social science studies on issues of human social development focused predominantly on adolescents (Hareven, 1995; Hockey & James, 2003; Shweder, 1998). Lock (1998) explains that aging was conceptualized academically as overwhelmingly a biological process “virtually independent of social and cultural influence” as recently as 1970 (p.45). Nussbaum and Coupland (1995) comment on the lack of communication studies on aging thusly:

The field of social gerontology is relatively new, innovative, and prolific, but still not well organized; perhaps because of this, the centrality of communication in studies of aging is not yet well enough established. Yet, communication and aging is at the forefront of the new wave of gerontology, giving priority to aging as one of the range of issues currently being scrutinized by the social sciences. (p. xi)

A remaining problematic area in comparing ageism to racism and sexism is the difference in wealth and power. Older adults (defined as 60+) have a large amount of annual discretionary income at \$7,000 per capita, which is about twice as much as those in younger groups (Bristol, 1996). Inequalities in earnings are more evident on the basis of race and gender than on the basis of age; for example, looking at persons over age 65, almost three times as many Black people (23.9%) were categorized as poor in 2004 compared to the same for White people (7.5%) (Administration on Aging, 2005). Furthermore, older women had a

higher poverty rate (12%) than older men (7%) in 2004. Comparing racism to ageism, it is obvious that the former includes much more egregious prejudice and discrimination (older adults as a group are not subjected to the legacy of slavery, for instance). While many older adults hold positions of power (particularly White males) with high earnings and assets, there is a huge discrepancy for women and minorities.

One benefit of relating ageism to racism and/or sexism comes from borrowing from theories or paradigms that have been explored for the latter. Indeed, in Brenda Allen's (2004) book *Difference Matters: Communicating Social Identity*, one chapter is devoted to how being older creates difference. Allen explains how multiple social groupings provide difference that matters in terms of social identities. Basically, membership in particular social groups (based on gender, race, age, etc.) will determine what privileges or "punishment" one receives in American society. Intersectionality addresses overlapping difference, which can also be multiple repressions. For example, older females have a different set of experiences and standards than older males, but Black older females have a unique experience compared to White older females. Intersectionality goes even further when introducing something like socioeconomic status; an older Black (race) woman (gender) who is poor (class) has a different set of privileges than an older White male who is upper class.

Particularly within the concept of social identity, the study of race has also developed the concept of the "Other," wherein members of minority groups are interpellated into a culturally constructed position representing what they are *not* (Hall, 2000). In other words, minorities' social identities are defined by what they are lacking, i.e. not being "White." Minorities are interpellated to being not White, where being White is the idealized, preferred position. Self-concept, self esteem, and personal empowerment for a large social



group thus suffer. The concept of Othering fits into ageism when older people are defined pejoratively by what they are not (young). Age becomes something to be dreaded rather than celebrated, and countless amounts of energy and resources are expended by older adults in an effort to be, or appear to be, what they are not: young. The social identity of “older” is construed by negative stereotypes.

Furthermore, prejudice is often based on an erroneous assumption of homogeneity in diverse groups of people, for example minorities or females. It is discursive to make assumptions about a very diverse group of people under a single categorization such as “Black” (for instance, thinking “all Blacks are alike”). It becomes essentialist, and the perspective of all minorities having the same characteristics reflects stereotyping at work. For social identity, negatively stereotyping an entire group as homogeneously “bad” results in marginalization or stigmatization of everyone within the group. Rather, from a constructionist perspective on race, for example, research should acknowledge and explore the heterogeneity of race in terms of unique experiences of individuals. The heterogeneity in older age is greater than any other social grouping or marking of difference because *everyone* (barring early death) will become old. Older adults include and cross all markers of difference, including race, sexual orientation, class, gender, etc.

The study of ageism also benefits from the same type of depth and understanding that emerges from looking at historical context and the concept of racism. Colonialism is what led to the classification and categorization of race and imbued races other than Caucasian with particular meanings (Gunaratnam, 2003; Solomos & Back, 1996). The construction of negative characteristics was produced in order to justify colonization; that is, non-White people were seen as inferior and needed to be saved/dominated by superior White people.

Similarly, one can look to industrialization for a focus on individual productivity that laid the groundwork historically for ageism. In the modern industrial world, elders were no longer the leaders of extended families in predominantly agricultural settings. Rather, they became “obsolete,” and their social status dropped accordingly.

Also in historical context, race was originally addressed by Caucasians in terms of biological inferiority of minorities. The meaning of people who were not White was investigated and analyzed mainly through biological characteristics (Gunaratnam, 2003). The original emphasis on biological inferiority of people of color can be applied to negatively constructing what it means to be old in terms of biological/physical decline. Looking at the three main ways that aging can be constructed—biologically, psychologically, and socially—biologically represents the most negative aspect of aging. The psychological aspects of aging, in contrast, contain many positive benefits such as maturity, coping abilities, and experience.

### **Social Identity Theory**

An explanation of social identity theory is provided in the current research study because it helps to explain the motivations behind, processes of stereotyping and categorization inherent in, and possible consequences of, intergroup comparisons. Social identity theory can be used to better understand all types of “isms” such as racism, sexism, and ageism. In addition, social identity theory’s maintenance strategies predict the need for collective action to change outgroups’ views in order to actually improve a marginalized group’s social identity. In other words, the only maintenance strategy (as will be explained below) that can actually elevate a marginalized group’s status is to convince outgroups to change their views. In the case of ageism, this provides justification for testing attitude change following strategic communication directed at college-age students. Not only are

college undergraduate students a relevant outgroup, these mass communication students are also the ones who will be creating media messages in the future. It is particularly important to empower this group—future journalists, editors, public relations professionals, advertising executives, and broadcast journalists—to resist ageist messages.

Social identity theory is a social psychology theory that emphasizes group membership as a determinant of identity. It specifies key cognitive and motivational components that result in group classification and comparison (Deschamps & Devos, 1998; Serino, 1998). In the broadest of terms, social identity theory posits that members of groups strive to achieve or maintain positive distinctiveness largely by making favorable comparisons between their group (ingroup) and relevant other groups (outgroups) (Tajfel & Turner, 1986). The motivational impetus to compare oneself as a member of an ingroup favorable to an outgroup is building self-esteem (Deschamps & Devos, 1998; Tajfel & Turner, 1986; Worchel, 1998). The basic hypothesis of social identity theory is that “pressures to evaluate one’s own group positively through ingroup-outgroup comparisons lead social groups to attempt to differentiate themselves from each other” in order to build self-esteem (Tajfel & Turner, 1986, p. 16).

This is not to say that each group one may belong to automatically results in positive intergroup comparisons that build self-esteem; belonging to a low-status or subordinate group can have the opposite effect. Belonging to a given group contributes to the development of positive social identity only if the characteristics of the ingroup can be compared *favorably* to relevant outgroups (Deschamps & Devos, 1998). What often happens is that a dominant, or high-status,<sup>6</sup> group produces repetitive negative assessments—often in the form of

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<sup>6</sup> Social identity theory most often describes status based on dimensions such as power and wealth, respect and influence, and prestige.

stereotypes—of a relevant outgroup, which then becomes marginalized or stigmatized. For example, those who belong to minority racial groups may find themselves labeled as inferior and negatively stereotyped by the more powerful and dominant group of Caucasians. Tajfel (1981) argued that categorization and negative stereotyping could not be situated solely as information processing devices that facilitate individual thinking, but rather as intergroup comparisons that justify negative attitudes toward an outgroup.

Indeed, social identity theory has been used extensively because of its applicability to concepts such as attitudes, social influence, and stereotyping (Brown, 2000). It is used interdisciplinarily to explain the tensions, reactions, and effects of dominant/high-status groups' comparisons with subordinate/low-status groups. Far from fading over time since its inception in the 1970s, social identity theory research continues unabated more than three decades after its introduction (Turner, 1999). Current research that employs the categorization process as a central theoretical tool can almost without exception be traced back to Tajfel's original theorizing on social identity (Turner, 1996).

Social identity is an important component of status. Looking directly at social identity of older adults, consider that occupation is the most important achieved status for men and women in the United States (Falk & Falk, 1997). Therefore, being retired and not having an occupation deprives older adults of having a dominant status feature in American society. Being retired carries social meanings based on negative stereotypes of being useless and incompetent.

In the case of marginalized or low-status groups when social identity derived from group membership is unsatisfactory, social identity theory postulates that individuals can try to leave the marginalized group (social mobility), try to create new means of comparison that

will make their group more positively distinct (social creativity), or initiate collective action to reverse the relative positions of the low-status ingroup and higher-status outgroup on salient dimensions (social competition) (Hinkle, Taylor, Fox-Cardamone, & Ely, 1998; Tajfel and Turner, 1986).

In summary, the contributions of social identity theory have been explaining the purpose behind ingroup bias (building self-esteem), developing understanding of responses to status inequality (maintenance strategies), and explicating the cognitive component of stereotyping as perception of homogeneity among groups (Brown, 2000). Brown and Capozza (2000) suggest that one of the reasons for the success of social identity theory is that it provides an understanding of the “sometimes paradoxical responses of minority and other subordinate groups to their disadvantaged position” (p. ix).

### **Development of Social Identity Theory**

Social identity theory was introduced in Britain at Bristol University by a social psychologist, Henri Tajfel (Hogg, 1996; Robinson, 1996). Social identity theory’s roots in explaining group prejudice can be explained by “ferocious intergroup conflicts involving mass slaughtering of peoples, apparently on the basis of their social identity” occurring in the 20<sup>th</sup> century (Robinson, 1996, p. xi). Tajfel, who was Jewish, was forced to flee Poland as the German Nazi regime gained momentum. While serving in the French army, Tajfel was captured and spent five years in various prisoner-of-war camps in Germany and Austria. It was during his imprisonment that he became aware of the importance of intergroup behavior over interpersonal behavior. Robinson (1996) reports that Tajfel made the point that “no matter what his personal characteristics were or the quality of his personal relationships with the German guards, once his true identity [as a Polish Jew] were discovered, it was that social

category membership ... which would have determined the reaction of the guards” (p. 3). It was in the 1970s that Tajfel, in collaboration with John C. Turner and others, more formally developed the idea of social factors of perception, including cognitive aspects and social beliefs related to racism, prejudice and discrimination, into what would become social identity theory (Hogg, 1996; Turner, 1999).

Tajfel built upon existing identity theory that addressed only individual phenomena such as intraindividual or interpersonal psychological processes in predicting prejudice or discriminatory behavior against others (Tajfel & Turner, 1986). Often in collaboration with his graduate student and later academic colleague, John C. Turner,<sup>7</sup> Tajfel was able to demonstrate that there is a collective level of reality in which individuals may act as members of a particular group independently of their personal tendencies and/or characteristics (Serino, 1998). The conceptualization of distinctiveness between the interpersonal, on one hand, and the intergroup, on the other, was explained as acting in terms of self versus acting in terms of we, respectively (Tajfel, 1974).

Tajfel and Turner (1986) also built upon existing group comparison theory in the 1970s, which suggested that such comparisons resulted from competition for scarce resources or conflicts of interest (realistic group conflict theory or RCT). While still maintaining that such factors could cause intergroup competition, Tajfel and Turner expanded the principles of RCT by demonstrating that individuals were prone to engage in group comparisons based

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<sup>7</sup> Following his work with Tajfel in social identity theory, Turner introduced self-categorization theory, which provides a more general account of group processes. Self-categorization theory addresses different levels of self-categorization with increasing abstraction and inclusiveness. It combines elements of both social and personal identity (Giles & Reid, 2005; Serino, 1998). Turner (1999) describes self-categorization theory as representing “a major expansion in the range of applicability of the social identity tradition, from intergroup relations and social conflict into the realm of group processes, stereotyping and social cognition” (p. 6).

solely on self-categorization as members of a group even without competitive pressure for resources.

This major breakthrough in the development of social identity theory came from Tajfel's early 1970s experiments investigating intergroup behavior (Brown, 2000; Tajfel, 1981; Tajfel and Turner, 1986). In the experiments, subjects unknown to each other were randomly assigned to groups. There was no conflict or hostility among groups, no interaction among group members, and no competition for resources. As such, the groups were designated to be "minimal groups" because the only significance of group membership was subjects' cognitive awareness of knowing they belonged to a certain group. Individuals in each group were instructed to distribute award money to pairs of other subjects based on individual code numbers and group membership designation, which was provided in a booklet (for example, member number 33 in group X and member number 22 in Group Y). All awards given by the individual subjects were anonymous. Findings showed that members of a group displayed ingroup bias, or favoritism, in awarding money to pairs comprised of members sharing their same group designation. The results provided strong evidence that social categorization as a member of a group, in and of itself, was sufficient to trigger intergroup discrimination favoring the ingroup.

### **Tenets of Social Identity Theory**

#### **Categorization and comparison**

Categorization is a naturally occurring cognitive function that enables classification, simplification, and understanding of the social environment (Deschamps & Devos, 1998; Oakes, 1996; Tajfel & Turner, 1986). Beyond enabling systemization for ease of understanding others, however, Tajfel and Turner (1986) point out that social categorization

cognitive tools also “provide a system of orientation for self-reference: they create and define the individual’s place in society” (p. 16). Brown (1996) argues that “one of Tajfel’s most important legacies to social psychology was the identification and clarification of the categorization process” (p. 170).

Categorization is placed not only on others, but also on the self. For example, an ingroup in social identity theory can be defined as “a collection of individuals who perceive themselves to be members of the same social category, share some emotional involvements in this common definition of themselves, and achieve some degree of social consensus about the evaluation of their group and of their membership in it” (Tajfel & Turner, 1986, p. 15). Abrams and Hogg (1990) suggest that the desire to experience social identity positively can be seen at the Olympics wherein members of a group sharing nationality cheer on their team. Relating to the minimal group experimental findings, the sense of national pride at the Olympics also demonstrates that individuals’ knowledge of sharing a social membership category with others can occur without having close personal relationships with members of the ingroup.

Social identity explains the evaluative signification that results from group membership (Deschamps & Devos, 1998). Comparison to other groups can address similarities or differences. In terms of comparison, social identity theory posits that individuals must identify with a group and the social situation has to allow for intergroup comparisons with relevant outgroups. Individuals belong to a number of different groups (ingroups), and the salience of a particular group identity depends on a number of factors such as shared fate, physical proximity, conflict, etc. (Richardson, 2005). Similarly, the relevance of comparison outgroups is based on social context. The evaluation of relevant attributes



(such as language, skin color, gender, socio-economic status, etc.) is dependent on the social situation. Furthermore, ingroups do not compare themselves with every outgroup; rather, they compare themselves with what they perceive as a relevant outgroup(s) (Tajfel & Turner, 1986).

As mentioned previously, the primary motivation for intergroup comparisons stems from individuals' desire to achieve and maintain a positive social identity (Tajfel & Turner, 1986). However, as also mentioned previously, social identity theory also recognizes that social groups stand in status relations to one another and can be in competition for rights, resources, and power (Abrams & Hogg, 1990). The result is that those groups with higher status/power/prestige often promulgate their ingroup superiority by conferring negative social identity on subordinate/low-status groups. In the process of social group comparisons, dominant groups seek to maintain the status quo or promote their own ideologies of superiority to the detriment of subordinate/lower-status groups. This is particularly effective if the values of the dominant group are accepted by society at large. Tajfel (1981) argues that "intergroup differences easily acquire value connotations which may be of profound personal importance to those who are adversely affected" (p. 342). As Tajfel and Turner (1986) explain, "subordinate groups often seem to internalize a wider social evaluation of themselves as 'inferior' or 'second class,' and this consensual inferiority is reproduced as relative self-derogation" (p. 11). In other words, much of what happens to people is related to the activities of groups to which they do not belong (Tajfel, 1981). Furthermore, the effects on motives and attitudes of millions of individuals in large social groups (such as those based on race or nationality, for instance) can determine behavior as well (Tajfel, 1981). Social identity theory provides the conceptualization of intergroup relations as a "two-way link

between situations and behavior ... through an analysis of the motivational and the cognitive structures which intervene between the two” (p. 129).

### **Stereotyping**

Like group categorization, stereotyping is a tool for the simplification of perception. In the process of reducing elements necessary to make evaluations of others, stereotyping leads to overgeneralization and exaggeration of individuals’ true characteristics.

One means of intergroup comparison is placing negative stereotypes on outgroups. Tajfel addressed the use of stereotypes primarily in regard to the importance of the motivation behind them and the function they serve in competitive and power relationships between groups (Condor, 1990). Social identity theory situates the cognitive component of stereotyping as the perception of homogeneity in outgroups (Brown, 2000). The premise is that ingroup members will tend to see outgroups as more homogenous than their own group primarily through the lens of stereotypes.

According to Condor (1990), even though Tajfel seldom specifically addressed stereotypes beyond his initial work, concern for groups as objects of stereotypic perception appears to be applied universally. It is also interesting that contesting negative stereotypes is not expressly included as one of the basic social identity maintenance strategies (discussed in more detail below) lower-status groups can employ when they have an unfavorable social identity. Tajfel’s early work acknowledges that low-status groups can try to change stereotypes placed upon them by higher-status groups, but that the only way such an effort could be successful is if the high-status groups adopt the same changes (Condor, 1990).

### **Maintenance Strategies**

As mentioned previously, when social identity is unsatisfactory individuals can try to

leave a group (social mobility), do something to make their existing group more positively distinct (social creativity), or create new ideologies through direct competition that increase the group's status (social competition) (Abrams & Hogg, 1990; Hinkle et al., 1998; Tajfel & Turner, 1986). It should be noted, however, that because the nature and structure of relations between social groups in society are characterized by marked stratification, it is often difficult for individuals to divest themselves of an unsatisfactory, underprivileged, or stigmatized group membership (Tajfel & Turner, 1986).

### **Social mobility**

When group boundaries are permeable, social mobility is the preferred maintenance strategy unless leaving the group would conflict with important values that are part of an individual's self-image (Tajfel, 1981). In order for social mobility to be a viable option, there must be permeability between low-status and high-status groups. An example of such mobility would be in the area of economically based groups—a person with low income could move out of an economically disadvantaged group through increased income or the accumulation of wealth. Racially or age-based groups, however, do not have such permeability, so social mobility is not a viable option. For example, an older person does not have the option to become young again and, a Black person does not have the option to become a White person. Regardless of whether social mobility is possible or not, Tajfel and Turner (1986) point out that the maintenance strategy of social mobility does not alter the low status of one's own group.

A sub-set option under social mobility is disidentification, whereby individuals of lower-status groups strive to become more like the high-status group (Tajfel, 1981). For instance, even though it is impossible for older adults to change their chronological age and

return to the social group of youth, they can symbolically disidentify with being older by means such as cosmetic surgery to change to a younger outward appearance, refusal to apply for senior citizen discounts or membership in organizations such as AARP, and behavior more commonly associated with younger persons. Another form of disidentification for older persons is to argue that age 60 is now the new age 30.

### **Social creativity**

Because of a lack of social mobility among many low-status and high-status groups, individuals may turn to the maintenance strategy of social creativity. Several options to achieve a more positive distinctiveness are specified under social creativity, and which one is used depends on various conditions (Brown, 2000). Research has shown that the social creativity strategy is most likely to be used when the status quo is justified and not likely to change (Abrams & Hogg, 1990; Hinkle et al., 1998).

One social creative strategy is for individuals within a marginalized group to form subgroups that have comparative advantages. Again looking at the example of older adults, a subgroup of “young-old” may be incorporated for the purpose of creating positive distinctiveness from the subgroup of “old-old.” This creative strategy essentially results in comparison with a different group (“young-old” people comparing themselves to “old-old” rather than “young”). A similar example of this social creative strategy would be Black people comparing themselves to a subgroup of other Black people rather than to White people.

Another social creativity strategy involves re-evaluating the importance of dimensions of comparisons between the ingroup and outgroup or searching for new comparison dimensions (Brown, 2000). For example, in age-based groups older people can look to

volunteering and giving back to the community as more important comparative dimensions than physical agility or youthful appearance. In addition, a group may try to change the values assigned to attributes of their group so prior negative values are changed to positive. An example of this would be Black people positioning “Black as beautiful” (Tajfel & Turner, 1986). Furthermore, a lower status group might also use group variability (some of us may be poor, but we’re not all poor) or vary the time frame (we may be poor, but we are better off than we were ten years ago) to enhance social identity through social creative maintenance strategies (Brown, 2000).

### **Social competition**

Lastly, the third maintenance strategy is social competition whereby a lower-status group works collectively to change societal attitudes that would elevate the group’s status. In other words, social competition works to create new ideologies that imbue a lower-status group with positively valued distinctiveness. Mass communications such as press releases, brochures, Web site content, etc. are means of advancing collective action. The stimulus materials used in this study are examples of mass communication messages that can be used to improve the social identity of older adults as one part of a social competition effort.

The most pervasive determinant of collective action or protest had been thought to be based on relative deprivation of the lower-status group (Brown, 2000). However, Brown reports that more recent research has found that identification with the group itself can be a determinant of collective action. For instance, Brown summarizes that participation in collective action was best predicted by identification with the activist group rather than relative deprivation for the social group of older adults. The social competition maintenance strategy is the only one that can result in an actual improvement of ingroup status, provided

that the changes are accepted by the higher-status group(s) as well.

### **Ageism and Social Identity Theory**

In the field of mass communication research, social identity theory can be used to explain how dominant ideologies favoring higher-status groups can result in production and reproduction of negative comparative representations and unfavorable value judgments of lower-status groups. The possible implications of being subjected to negatively constructed social identities for members of marginalized groups serve as justification for mass communication research exploring media content representations of subordinate groups. For example, a content analysis of major U.S. newspaper discourse on the topic of middle age showed that the social group of middle-aged persons was twice more likely to be saddled with negative characteristics than positive or neutral characteristics (Bailey, 2006).

Whitbourne and Sneed (2002) address what social identity theory terms “social creativity” when discussing coping mechanisms older adults can use to deal with negative stereotypes placed upon their age group. They offer research findings that support older adults’ removing dimensions such as physical or cognitive abilities as a basis of self-evaluation in comparison to younger people. Kite and Wagner (2002) directly address social identity theory in regard to ageism and suggest that the basic tenet of ingroup bias does not necessarily apply to the aged as a social group. According to social identity theory, older adults would show preference for older adults (ingroup bias) and devalue the outgroup of younger adults. Kite and Wagner postulate that older age groups do not uniformly follow this basic assumption of social identity, but do rely on social creativity to enhance their positive distinctiveness. Their general conclusion is that “perhaps age is a rather unique social category in that, if SIT is correct, people may spend a lifetime making their own age group

positively distinctive from older adults—only to find that they have become an older adult themselves” (p. 150).

Harwood, Giles, and Ryan (1995) also use social identity theory to inform research on aging and intergenerational communication. They discuss the extent that age groups can be considered social groups, general issues in age categorization and comparison, the role of communication in age-based differentiation, and the social identity maintenance strategies available to achieve a more positive identity. Harwood et al. add to the challenge of particularities of age as a social group mentioned by Kite and Wagner (2002) above. For them, a unique feature of social groups based on age is the malleable boundaries of age classification (for example, at what age does a person become “old”?). Their conclusion is that applying social identity theory to aging research has mutual benefits. On the one hand, social identity theory can gain from research using the social grouping of older age because of the unique variety of boundaries that define that group. On the other hand, aging research that adopts a broad intergroup approach grounded in social identity theory will facilitate deeper understanding of social processes, particularly in regard to intergenerational communication.

### **Affective and Cognitive Messages in Persuasion**

Persuasion, both verbal and written, is a widely studied area, rooted primarily in the field of social psychology. Advertising was quick to borrow and build on social psychology due to the importance of producing effective messages for attitude maintenance or change. Political science, specifically, has explored the contrasts between relying on affective cues and cognitive cues to produce attitude change (Marcus, 2000). Contemporary research in communication and persuasion traces back as far as Aristotle (1954) who analyzed persuasion in rhetoric, stating that emotion could be used to influence the audience. The variables studied

or posited to affect persuasion in a message are numerous. For example, in his seminal work on manipulation of messages to produce the most effective results in formation of attitudes for military personnel in the 1940s and 1950s, one aspect Hovland looked at was one-sided versus two-sided messages (Hovland, Lumsdaine, & Sheffield, 1949). Other considerations might investigate variables such as the use of humor or uniqueness of the message. Probably because attitudes themselves are conceptualized as having affective and cognitive components, a broad category of communication and persuasion addresses the difference between those appeals that are cognitive in nature and/or elicit cognitive processing/evaluation and those that are affective in nature and/or elicit affective processing/evaluation.

### **Operationalizing Attitude, Cognitive, and Affective**

Attitude generally refers to evaluation of an attitude object, which can also be an issue, on a positive-to-negative continuum. The cognitive component of attitude consists of *thoughts* about an attitude object, and a cognitive appeal will be associated with rationality and logical thought (Millar & Millar, 1990). Information is key to cognition. The affective component of attitude consists of *feelings* about an attitude object and is associated with emotionality. The basic summary is that cognitive equals thinking/rationality while affective equals feeling/emotionality (Marcus, 2000). What follows below are examples of how cognitive and rational appeals have been differentiated in research studies.

Millar and Millar (1990) presented two cognitive statements about water as: “water is low in calories” and “water has too many chemicals.” Using the same attitude object, the two affective statement examples were: “water makes me feel refreshed” and “water is boring to drink.” What one can see in the affective statements about water is an emphasis on subjective



evaluation. Similarly, Millar and Millar (1990, p. 224) give examples of cognitive thoughts, on the one hand, about a math test as “the problem requires too much thought,” “the answers are incorrect,” and “the directions for the problem are clear.” These cognitive statements can be construed as being rational and factual from the individual’s perspective. On the other hand, affective statements about the math test were: “the problem made me feel nervous,” and “the problem made me feel confident.” In this case, one can see that the affective statements focus on feelings.

Affective and cognitive message stimulus materials used by Rosselli, et al. (1995) were developed on the basis of two separate pretests. Each message contained six arguments that were either in favor of, or against, using animals for research purposes, rational or emotional in nature, and strong or weak in quality. Examples of their strong rational (cognitive) message statements both for and against animal research were:

- Without animal research, medical knowledge could not have progressed to its present state.
- Animal research is vital to the understanding and treatment of polio, heart disease, and organ transplants.
- Most research can easily use computer simulation rather than animals.
- Heart bypass surgery killed all of the first patients undergoing the surgery because dogs’ blood clots very differently than human blood.

Examples of their strong emotional (affective) message statements both for and against animal research were:

- Without animal research, biological mysteries that may have been understood will remain mysteries.

- Research involving animal subjects may someday be instrumental in saving the life of your child or the child of someone close to you.
- Remarkably curious, intelligent, sensitive, and gentle, rodents feel as much pain and fear as humans.
- Animal research causes unnecessary suffering to animals (p. 171).

The second statement shows an appeal designed to evoke strong emotions (saving the life of your child); the last two statements show emotional appeals designed to evoke empathy and compassion toward the attitude object.

In a study by Fabrigar and Petty (1999), the stimulus materials were designed to produce either cognitive thoughts or affective feelings about a fictitious animal. For the affective appeal, the message described a person's encounter with the fictitious animal, and the animal was depicted as friendly and frolicking with a swimmer. The passage provided relatively little information about the animal, but was designed to produce feelings the reader would associate with the animal. The cognitive positive informational passage was presented as an excerpt from an encyclopedia on marine life. Several positive attributes of the animal were discussed, including that the animal was highly intelligent and could be trained easily. The practical uses as a source of food and for making products were also discussed. In this study, the emphasis on factual information for a cognitive appeal is evidenced, as well as a focus on feelings for the affective appeal.

Looking at a content analysis of prescription drug advertisements, Main, Argo, and Huhmann (2004) operationalized cognitive appeals as those that offered a factual presentation of news, comparison with other brands, statistical or research information, or product usage information. They explained that rational advertising appeals for prescription drugs can be

assessed as tending to motivate consumers through informational and logical arguments. In comparison, they operationalized positive emotional appeals in prescription drug advertising as attempting to evoke a favorable affective response, such as warmth, joy and happiness, humor, nostalgia, and fantasy and sex appeals. Negative emotional appeals were defined as conveying a disturbing emotional tone such as fear, guilt, shame, regret, sadness, anger. Similar to Main, et al. (2004), Moore and Harris (1996) describe emotional appeals as featuring “high impact, sensually evocative appeals” that stimulate strong emotions (p. 37). The stimuli they used for emotional appeals were advertisements that a panel of judges felt evoked emotions such as joy, happiness, warmth, touching, moving, sad, and sympathetic.

What is evident is that cognitive appeals are linked with presentation of factual information and product attributes that are presented in an objective, straight-forward manner. Stafford and Day (1995) summarize rational appeals as more direct, containing factual information, characterized by objectivity, and designed to stimulate thinking. This description of cognitive appeals was used in designing the stimulus materials for the current study. A typical news report or press release follows this cognitive paradigm in terms of presenting facts and supporting evidence in a logical manner. Aday (2006) points to advocacy frames in news stories or press releases as presenting a message that can be likened to more affective appeals. He draws on vividness studies to operationalize such advocacy stories as including metaphoric language and anecdotal information. Because the current research study addresses advocacy communication, the use of anecdotal information as a component of the affective appeal in stimulus materials was incorporated.

From a political science perspective, three broad categories of persuasive emotional appeals have been identified as: negative tone (fear, anger, us versus them), emotional tone

(sympathy, empathy), and appeals indicating what has been done and what is proposed (achievement and hope) (Fourie & Froneman, 2005). Typical election issues can be considered emotional messages (Fourie & Froneman, 2005). Kaid and Garner's (1995) content analysis of the elderly in political campaign advertising found that a considerable number of emotional appeals were used, particularly a fear appeal (the candidate would present the opponent as opposing something important to the elderly like social security with the "threat" that if they voted for the opponent, they would lose a valuable service). Another affective appeal is the use of music (Gorn, 1982; Igartua, Cheng, & Lopes, 2003).

It appears that researchers have developed idiosyncratic approaches to what constitutes emotional appeals and have neglected any systematic attempt to explain the components that may elicit affective responses (Wartella, 1984). Marcus (2000) summarizes that "the field of emotion is rife with basic disagreements about crucial conceptual definitions" (p. 224). He further explains that the mysterious character of emotion might be largely to blame for the emphasis on cognition in scientific studies. Furthermore, there is the problem of obtaining valid and reliable measures of responses based on emotion rather than cognitions (Marcus, 2000; Vakratsas & Ambler, 1999).

### **Mixed Cognitive-Affective Appeals**

As evidenced in the preceding section, studies that compare the effects of an affective strategy to a cognitive one are common. As Marcus (2000) points out, the attention to affective *or* cognitive messages gives the impression that one or the other dominates. But few studies include comparison among cognitive, affective, and a mixed cognitive-affective message, even though a conceptual framework for the importance of mixed messages has been established. One such conceptualization is that persuasive processing should be

delineated as cognitive-only and cognitive-with-affective because it is highly unlikely that any message is devoid of emotional content or influence (Marcus, 2000). This cognitive-emphasized conceptualization of mixed message type processing is supported by Rosselli, et al. (1995) who found that persuasion in response to rational messages was mediated by valence of cognitive responses but persuasion in response to emotional messages was mediated by the valence of both cognitive and affective responses. Models of how advertising works have also developed beyond cognitive-only and affective-only paradigms because “advertising typically works on both the cognitive and affective planes” (Vakratsas & Ambler, 1999, p. 32).

A more balanced (not cognitive-emphasized) conceptual framework is represented by scholars such as Chaudhuri and Buck (1992) who argue that the use of both affective and cognitive variables allows for a better approach to understanding the effects of persuasive messages. Results from a study investigating the persuasive impact of emotional and cognitive elements in political campaigns indicated that both elements should be used together (Fourie & Froneman, 2005). Similarly, Cacioppo, Harkins, and Petty (1981) posit that evaluative elaborations of message content could be seen as spanning a continuum ranging from the objective to the emotional. Even though research using the ELM has attempted to capture either the central route or the peripheral route, Petty, Cacioppo, Strathman, and Priester (1994) argue that the central and peripheral routes represent two extremes of a continuum and neither is likely to occur without the other; audiences are more likely to consider argument as well as peripheral cues together in some sort of mix.

### **Elaboration Likelihood Model**

A process model introducing dual routes for processing a communication message, the

elaboration likelihood model (ELM), was developed by Petty and Cacioppo (1986). The ELM went further than previous models that focused only on situations in which the audience actively processed the information provided to them (Petty, et al., 2002). It is important to look at this model in more detail because it provides predictions for the effectiveness of high cognitive processing versus low cognitive processing. According to Petty, et al. (1997), the ELM has likely maintained popularity over the years partially because the ELM encompasses “the effects of a multitude of persuasion variables, processes, and outcomes” (p. 616). While the ELM has been criticized on different points, such as lacking sufficient empirical testing, it remains one of the most researched theories on attitude change (Stephenson, Benoit, & Tschida, 2001).

The two routes to attitude change in the ELM are the central route and the peripheral route, and which is used is mediated by the receiver’s motivation and ability to process a message (Petty & Cacioppo, 1986). Basically, with the amount of information people receive in modern times, the assumption is that detailed, or serious, cognitive assessment (high elaboration) cannot be made for each and every message (Severin and Tankard, Jr., 2001). The central route represents high elaboration, or close attention to the appeal, and high degree of thought, analysis, and critique put into the message. The central route is thus most effective when the message presents strong, high-quality arguments (Petty, et al., 2002). The “*central route* to persuasion involves effortful cognitive activity whereby the person draws on prior experience and knowledge in order to carefully scrutinize all the information relevant to determining the central merits of the position advocated” (p. 165). The degree of elaboration a receiver puts into a message depends on his/her motivation or interest in the message. Motivation can be thought of as a person’s personal involvement in the message or the extent

to which the message is relevant to the receiver.

When a person does not have the motivation/involvement to use high elaboration (the central route), he/she will instead process through the peripheral route (Petty & Cacioppo, 1986). In the peripheral route, message processing is not accomplished through deep thought or analysis, but rather through heuristics, simple rules (i.e., “parents are always right”), feelings, and more easily processed cues such as source evaluation. In other words, in the peripheral route, evaluative judgment of a message is likely to result from “relatively simple associations or inferences based on salient cues” (Petty, et al., 2002, p. 177). “A peripheral cue is a feature of the persuasion context that allows favorable or unfavorable attitude formation even in the absence of an effortful consideration of the true merits of the object or issue” (p. 176) and may be related to liking the source, the style/format of the message, visual cues, background music, etc.

In summary, highly motivated individuals will “put in the effort” to elaborate (high elaboration/high cognition); those with low motivation/interest will process through the peripheral route (less elaboration). And even if a person has high motivation, he or she can be de-railed on the central route if he or she doesn’t have the ability to process the message because of distractions, lack of comprehension, etc. That is another case (like low motivation/involvement) where a switch will be made to the peripheral route. Any one variable (e.g. source expertise) can induce persuasion by either the central or the peripheral route in different situations (Petty, et al., 2002).

### **Defining peripheral cues**

Analyzing how peripheral cues have been described is important to the current research study because of the implication that the peripheral route *may* be likened to affect.

While there is some support for equating affective cues to peripheral cues (as will be presented below), the ELM is a purely cognitive model that neglects to directly address the influence of affect in the persuasion process. A main assumption of the ELM is that cognitive responses are a mediating variable in the persuasion process. That is why the ELM can only be used as an informative perspective in the current research study. When Petty, one of the developers of the ELM, speaks of message variables that have been shown to effect persuasion, consideration for cognitive versus affective message appeals is noticeably absent (specifically mentioned are message framing in terms of negative versus positive arguments; one-sided versus two-sided and comparative messages; and other message factors such as vivid versus pallid messages and use of evaluatively biased words).

Attempts to fit affective cues in the peripheral route are confounded by one criticism of the ELM, that of its imprecision in defining the central and peripheral routes of processing (Stephenson, et al., 2001). A multitude of peripheral cues have been specified, including but not limited to: identification with source and use of heuristics (Petty and Cacioppo, 1986); communicator credibility, source credibility and attractiveness, and communication settings (Petty, et al., 1997); number and length of arguments (Petty, et al., 2002); simple decision rules, source credibility, the style and format of the message, the mood of the receiver (Severin and Tankard, Jr., 2001); and credibility, liking, and consensus (O'Keefe, 1990).

While the ELM doesn't specify a direct affective component in the persuasive process, there has been a move in the use and development of the ELM to include affective considerations under the peripheral route. Petty, et al. (2002) state that "various features of a communication (e.g., pleasant scenery in a TV commercial) can elicit an affective state (e.g., a good mood) that becomes associated with the advocated position" p. 168. Another example



is Chaudhuri and Buck's (1992) research on advertising strategies that predict cognitive and affective responses using the ELM as the theoretical basis. "There has been much recent discussion and speculation concerning the role of *emotion* [emphasis added] and reason in the persuasion process. *Emotion* [emphasis added] is typically contrasted with cognition in these discussions, with the latter being associated with a highly conscious 'central route' in which verbal arguments are carefully considered, and the former [emotion] with a more amorphous and poorly understood 'peripheral route' to persuasion" p. 422. Likewise, Morris, Woo, and Singh (2005), equate the peripheral route of ELM with affect, stating that "the ELM attempts to account for the presence of affect in the process of attitude formation and change by keeping it on the periphery [peripheral route] of that process" (p. 84). They critique the ELM for not including an affective component in the central route as well. They argue that even in the central route, the emotional aspect is as important as the cognitive aspect.

A study on AIDS communication that demonstrated that an *affective* appeal would be better than a cognitive appeal in situations where the audience does not have high involvement also used ELM as the theoretical basis (Igartua, et al., 2003). In this application of the ELM, the peripheral route was described as processing based on induction of an obvious *affective* response due to linking the attitude object with *affect*. It was found that for subjects with low involvement in AIDS, the *emotional* appeal produced better results, with the opposite true for those highly involved in AIDS (for instance, people who had AIDS).

Shiv and Fedorikhin (1999) propose an affective-cognitive model of consumer decision making in which affective processes are more likely to occur in a relatively automatic manner when the availability of processing resources is low. This directly mimics ELM's postulation that the peripheral route is activated more quickly and effortlessly than the

cognitive route. One can see the same overlap of affective evaluations with peripheral processing in Marcus' (2000) explanation that affective evaluations are simple and defined by a need for a quick approach to making judgments. The affective primacy hypothesis says that emotional associations are activated more rapidly than cognitive associations (Crano & Prislin, 2006). This aligns with the lower effort in ELM needed to process messages through the peripheral route. Affective appeals can be better at "grabbing attention" (Rosselli, et al., 1995) and instantaneous processing, but the ELM indicates that the attitude change produced would tend to be shorter-lived than if it resulted from cognitive processing. In other words, characteristics associated with the peripheral route in the ELM (i.e., being quicker and easier to process) are the same characteristics commonly associated with affective processing. This tends to justify an implication of affect in the peripheral route even though the ELM is strictly cognitive.

### **Predictions of the ELM**

The predictions of the ELM are relevant to the question of what type of effects can be expected for cognitive versus affective *if affective messages are considered to place processing in the peripheral route*. The ELM (Petty & Cacioppo, 1986) predicts that messages that require more cognition/thinking (i.e., higher elaboration processed by the central route) produce attitude change that will:

1. Be less resistant to counter pressures/counter arguments
2. Be more stable/enduring
3. Likely indicate behavior

The opposite of all three points is true of messages receiving less elaboration and taking the peripheral route. If one only looked at the ELM predictions, the conclusion would

be that cognitive message appeals are most effective in the three important measures specified. However, it is important to note that it is not a question of simply presenting a cognitive appeal and then the audience will use high elaboration that results in attitude change more resistant to counterarguments, more stable, and likely to indicate behavior; rather, the audience would have to be motivated and able<sup>8</sup> to process the message by the central route in order for the desired effect to be produced.

### **Effectiveness of Cognitive or Affective Messages (with Emphasis on Cognitive)**

Cognitive-based research has very much dominated research on persuasion and communication (Marcus, 2000) and the role of affect has not received adequate attention (Shiv & Fedorikhin, 1999). Furthermore, “most current psychological theories of persuasion have been developed to account for attitude change in response to rational appeals. Because of this focus, it is perhaps not surprising that these theories have emphasized the mediating role of cognitive elaborations in producing attitude change” (Rosselli, et al., 1995, p. 164). The basic assumption in the dominant early cognitive model of advertising, for instance, was that consumers were thought to make logical and rational choices for maximum utility (Vakratsas & Ambler, 1999). The cognitive model has also long been held in political advertising where the assumption is that voters need/seek information in order to make rational decisions.

Along these lines, support for using a cognitive message appeal over an affective appeal in advertising comes from the need for information associated with certain types of products or services (Vakratsas & Ambler, 1999). For example, the classification of “credence” goods can be defined as goods in which there is a high risk of making a mistake

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<sup>8</sup> The subjects are assumed to be able to process the stimulus materials with cognitive elaboration because the setting does not have any distractions and the messages are neither too lengthy nor complex for them to be able to process on the cognitive route.

and where it is difficult to make evaluations prior to experience/purchase. Products such as marriage counseling, high ticket items where the risk increases with cost, home repairs, etc. fit into this category. The message strategy necessary in advertising credence goods has an emphasis on providing information (such as warranties provided, rebates, even years in business) that will help reduce consumer risk. Even without the classification of “credence goods,” however, a study of advertisements for restaurants and photo finishing (services that do not present high risk or cost) by Stafford and Day (1995) found that a rational appeal generated more favorable attitudes toward the ad than did an emotional appeal. Follow-up interviews with the subjects confirmed this preference when they commented that they needed more information from the emotional ads. Similarly, Rosselli, et al. (1995) found that when controlling for mood of subjects, a cognitive message produced overall increases in attitude change over an affective message regarding the use of animals in research.

### **Effectiveness of Cognitive or Affective Messages (with Emphasis on Affective)**

What has recently emerged is a body of research primarily from social psychology that demonstrates that emotional responses can be processed absolutely independently of cognitions (Rolls, 1999) and that emotional evaluations are far more active, and hence far more important, than cognitive processing (Bargh & Chartrand, 1999). Similarly, a growing body of research has found affect to influence many judgments and perceptions (Campbell, 2007). For example, one research study found that attitude change for subjects exposed to an emotional message was not correlated with the importance of any cognitive responses triggered by the message, but instead depended solely on the attractiveness of the source. The summation in this study was that the presence of emotional appeals can actually retard content-based cognitive responses (Rosselli, et al., 1995). From a political science

perspective, Marcus (2000) argues “More political scientists have seen emotional expression as resulting from distinct affective processes. This shift argues that evaluations arising from emotional processes, independent of prior or concurrent cognitive processes, can influence not only emotional expression but also thoughts, decisions, and political behavior” (p. 224).

Advertising, too, has called for “a model of persuasion which takes into account both affective dimensions of the advertising stimulus and [the children’s] affective response to advertising” because a major factor that may enhance the persuasive influence of television advertisements is the affective or emotional appeal of commercials (Wartella, 1984, p. 187). While historically advertising did develop a strictly affect model, it gained little support due to the difficulty in separating out any type of cognition in measurements and ad awareness (Vakratsas & Ambler, 1999).

One model in advertising, the integrative model, incorporates both cognitive and affective considerations in determining advertising effectiveness. The integrative model builds on aspects of the ELM by including the mediating variable of involvement, but also adds in the variable of product category. The integrative model contests the ELM by holding that there is no one singular universal sequence such as cognitive to affective (peripheral in the ELM). The FCB grid is an example of an integrative model of advertising; it takes into account dimensions of thinking and feeling, high and low involvement, coupled with product category to assess whether an emotional/affective appeal or a cognitive/rational appeal would be most effective (Vaughn, 1980 and 1986). According to the FCB grid, informative (cognitive) message strategies are more effective for “information” goods (high thinking, high involvement) such as major purchases (car, home) or new products (for which there is a high need for information about the new product) and “habit forming” goods (high thinking, low

involvement) such as toothpaste, food, and most packaged goods. On the other hand, according to the FCB grid, emotional appeals will be more effective for “affective” goods (high emotion, high involvement) such as fashion and cosmetics and “self-satisfaction” goods (high emotion, low involvement) where personal taste comes into play (products such as cigarettes, candy and movies). Because of the difference in issues and product categories, use of the FCB grid in determining the most effective type of appeals for advocacy issue messages would involve explication of what type of a “product” the issue was (i.e., is it a high-emotion issue?), and is complicated by involvement not being constant as it is in product categories. Therefore, the FCB grid has informative value in consideration of effective message types based on product category, but can only be used with limitations for advocacy issues.

In support of emotional appeals regardless of product category or audience involvement, a recent qualitative analysis of 880 case studies of advertising campaigns that won the Institute of Practitioners in Advertising’s annual effectiveness awards found that emotional campaigns are more successful than informational campaigns. Emotionally based campaigns outperformed rationally based campaigns on many business measures such as sales and market share (Binet & Field, 2007). The findings from this study also contradict the perspective that emotional appeals have shorter-lived effects; Binet and Field found that emotional campaigns had longer-lasting effects than rationally based campaigns. It should be noted that the results of Binet and Field’s research deal only with business performance outcome measures (profit, market share, and return-on-investment). Because one of the basic tenets of Binet and Field is that advertising agencies and their clients are unduly fixated with intermediate outcome measures such as awareness and attitude formation, their findings are

not directly applicable to most advocacy communication campaigns, which have intermediate outcome objectives of awareness and attitude change.

Tying in specifically to advocacy communications from a journalistic standpoint, Aday (2006) suggests that there are several reasons to expect advocacy frames to have greater framesetting effects than objectivist frames. Aday describes advocacy frames as based on more heuristic-based modes of information processing such as narrative structure that emphasizes value (such as patriotism) and using the first person in reporting (affective-type strategies). Therefore, Aday's advocacy frames align with affective frames. Objectivist frames represent the traditional news emphasis on information, which equates with cognitive appeals. He explains:

For instance, the literature on information processing suggests individuals are cognitive misers who desire cognitive efficiency and will gravitate toward heuristic-based modes of information processing that require less cognitive effort than more systematic, effortful modes of processing. Therefore, we should expect the narrative format that requires audiences to devote the least cognitive effort in judgment making—advocacy frames—to be more successful in creating attitude change than the format that demands more effort, specifically attitude change consonant with the message in a news story. p. 770

Exemplification theory also provides support for the effectiveness of exemplars (such as quotes, photographs, and personal experience) over objective base-rate data (such as statistical data and findings from surveys) in changing perceptions. This relatively new theory developed by Dolf Zillmann (Zillmann & Brosius, 2000) predicts that exemplars have a stronger effect on the audience's perception of an issue than do base-rate data. Research on

exemplification has shown that even small exemplar groupings are subjectively persuasive and compelling (Zillmann, 2006). In the current study, exemplars are equated with affective message components (quotes of personal experience, specifically) and base-rate data are equated with cognitive message components (research findings, specifically). Exemplification theory has developed to address mostly audience assessments of risks to safety and health, including motivations for risk avoidance. This study expands the application of exemplars not in terms of health and safety assessments compared to contrary base-rate data, but in terms of effectiveness of attitude change as a persuasive message strategy.

The bottom line is that a growing body of research says that affect influences many judgments/evaluations of an attitude object. Challenging the basis of contemporary psychological research grounded in the assumption of people consciously and systematically processing incoming information, Bargh and Chartrand (1999) argue that affective-type unconscious evaluations are more active than conscious cognitive processing. In addition, Marcus (2000) suggests that in quick evaluation of contemporary circumstances, the “default condition is reliance on these affective evaluations” (p. 230). Vakratsas and Ambler (1999) summarize the importance of affect in advertising, “We find it noteworthy that emotion has only surfaced relatively recently in the literature (mainly since 1980), even though the conclusions [of a table summarizing advertising effects research] suggest that affect can be more important than cognition” (p. 36). A recent study by Morris, et al. (2005) found that “affect is more than just a peripheral occurrence in the process of persuasion as suggested in the ELM. Indeed, the results [of their study] contradict the notion that affect is the product of peripheral cues in the advertisement execution more than the factual information related to the product” (p. 92).



One need only look at advertising to see the ubiquitous use of emotional appeals; certainly such advertising is not simply “seat of the pants,” but rather based on research and measures of effectiveness. Examples of emotional appeals are evidenced in the Marlboro man cigarette advertising, Coke’s “Love the World” campaign, and many others. Research on food advertising to children has also shown that the response to such advertising is primarily affective; the kids like the Ronald McDonald character, for example, or the children process the message based on peer-interaction and acceptance rather than cognitive processing of specific product attributes (Wartella, 1984). In political advertising, emotional stimuli have been shown to have strong persuasive capability on whom the audience actually votes for (Marcus, 2000). For example, voters might rate a candidate on an element such as likeability rather than his/her stand on issues. One can see contemporary emphasis on affective dimensions of political candidates in the media attention regarding the possible detrimental effects of voters not “liking” Hillary Clinton or seeing her as a cold and unfriendly person.

### **Summary of Cognitive, Affective, or Mixed Cognitive-Affective**

From the literature review presented so far, it becomes apparent that the ELM is lacking in *direct* consideration of affect in persuasion; the ELM is a cognitive model. There are studies supporting the effectiveness of a cognitive message over an affective message, but the literature also offers strong support for the effectiveness of both mixed cognitive-affective messages and affective-only messages in the persuasion process. Exemplification theory is one paradigm that suggests individual subjective evaluations associated with affect (exemplars of personal quotes) produce stronger perceptions of an issue than do clearly stated facts (base-rate data) that would be processed cognitively. Overall, the literature supports a

need for expansion of the ELM to address the strength of affect and its independence from cognitive processing in persuasion.

The current research study presents cognitive, affective, and mixed cognitive-affective appeals separately to see what differences are produced in terms of attitude change toward older adults. The mixed cognitive-affective message appeal is included because some literature supports the idea that a mixed cognitive-affective message would be the most effective.

Before addressing which message type would be most effective in producing positive attitude change toward older adults, the first research question is:

**RQ1: Will exposure to a simulated news article that challenges the negative stereotypes of older adults as useless/unproductive and unhappy/depressed positively change attitudes toward older adults among young adults?**

If exposure to the mass media message does produce positive attitude change, then the next research question relates to the relative effectiveness of the three message types tested in this study. The summary of literature presented indicates that there are a variety of assumptions about the relative effectiveness of cognitive, affective, and mixed cognitive-affective messages in persuasion. The traditional research focus has been on cognitive, but that appears to be changing with relatively new evidence regarding the importance of affect in persuasion. There are valid arguments supporting the effectiveness of each type of message appeal, which indicates the need for more research to clarify what type of message can be expected to produce the greatest favorable attitude change among the audience. This is particularly important in regard to messages designed to combat “isms”—research in this area is virtually non-existent. While acknowledging the variety of hypotheses that could be

formed in regard to which type of message would produce the greatest attitude change, due to the conflicting predictions, a research question was determined most appropriate:

**RQ 2: Which message type will produce the greatest overall positive attitude change toward adults over age 65?**

The ELM provides predictions for processing of persuasive messages along two routes depending primarily on the audience's involvement with the issue. The central route represents high-level cognitive processing when involvement is high while the peripheral route has an implied association with affective processing when involvement is low. In addition, the ELM predicts that messages processed by the central route will have longer-lasting effects/be more enduring than messages processed on the peripheral route. Therefore, based on the ELM, the following hypotheses were made:

**H1: For those students with low involvement in the issue of old age, the affective message will produce greater positive attitude change than will the cognitive message or the mixed cognitive-affective message.**

**H2: For those students with high involvement in the issue of old age, the cognitive message will produce greater positive attitude change than will the affective message or the mixed cognitive-affective message.**

**H3: The cognitive message will produce greater positive attitude change than the affective or mixed cognitive-affective messages in the delayed condition where the post-test measure was completed one week after exposure to the stimulus materials.**

While the ELM does not predict that an affective (peripheral) appeal will be the most persuasive immediately, other literature presented in this study supports that affective appeals

are particularly effective immediately after exposure to the message. Therefore, the following hypothesis was formed:

**H4: The affective message will produce greater positive attitude change than the cognitive or mixed cognitive-affective messages in the immediate condition where the post-test measure was completed immediately after exposure to the stimulus materials.**

### **Source Similarity**

Research related to source variables in communication most often focuses on varying source credibility (King, 1976; Slater & Rouner, 1996; Yoon, Kim, & Kim, 1998), defined as a source's expertise, trustworthiness, and attractiveness (Ohanian, 1990). However, some research has investigated how differing source by similarity/dissimilarity to the audience effects attitude change. King and Sereno (1973) argue that sources perceived as similar to their audiences are more persuasive than those that are perceived as dissimilar. Bristol (1996) states that "similarity between endorser and audience should result in greater message acceptance and persuasion" (p. 60). The reasoning is that when audiences can identify with a source, they will be more likely to adopt a similar position to that advocated by the source.

Simons, Berkowitz, and Moyer (1970) posited that source similarity could be based either on subjective similarity such as shared interests and values or membership/group similarity such as demographics of sex, socio-economic status, or age. Source similarity in the current study focused on the latter. The respondents in the current study were undergraduate college students so the similar source will be a 19-year-old college student who volunteers for AARP while the dissimilar source will be a 68-year-old who volunteers for AARP.

There have been very few research studies looking specifically at age similarity in spokesperson or endorser sources (Bristol, 1996). The only research study the author could find addressing age similarity in spokesperson or endorser sources was a field experiment conducted by Bristol (1996). Bristol investigated the persuasive effects on older adults of using different-aged endorser sources in print advertisements. The results showed that older adults' attitudes toward the fictional arthritis and muscle relief cream advertised were more favorable when the endorser source was middle-aged rather than younger or older. It should be noted, though, that even though the age-similar source did not produce the strongest positive attitude change toward the advertised product, it could be because older adults often perceive themselves approximately ten years younger than their chronological age (Stephens, 1991; Van Auken, Barry, & Anderson, 1993).

Other research on source similarity varies by addressing specific types of products and attitude toward the spokesperson. For example, audiences' viewing of similar sources more favorably than dissimilar sources was supported in a study using race as the basis of source similarity. Herek, Gillis, Glunt, Lewis, Welton, and Captanio (1998) produced two AIDS educational videos, one with a White announcer and one with a Black announcer. When the videos were shown to Black people, the audience rated the Black announcer more favorably than the White announcer. A study looking at the influence of similar sources on consumer attitudes for services that varied on preference heterogeneity (defined as the degree to which consumer preference varies across consumers), found that source-audience similarity has a significant effect on audience attitudes for higher-preference heterogeneity services but not for lower- preference heterogeneity services (Feick & Higie, 1992).

Tying into social identity theory, it seems that individuals would be most persuaded by members of their own group in an attempt to align their own attitudes with those proposed by another group member. Self-categorization analysis of social influence demonstrates that “influence obtains principally from ingroup members; we are influenced by others with whom we self-categorise [sic], individuals who we perceive to be the same, identical, or interchangeable with ourselves” (Platow, Mills, & Morrison, 2000, p. 69). For this reason, the hypothesis regarding source similarity was:

**H5: Greater positive attitude change toward older adults will occur when the source shares the similar characteristics of age and being a college student with the audience.**

## CHAPTER 3

### METHOD

The effects of a simulated Yahoo.com news article combating negative stereotypes on attitudes toward older adults (over age 65) among college students was measured using experimental methods. In Experiment 1, a 3 (message type) x 2 (time of post-test) between-subjects pre-test/post-test design was utilized. Manipulations were made on the type of message (cognitive, affective, or mixed cognitive affective) and the time of post-test (immediately after exposure to the stimulus materials or one week after exposure). As a supplemental experiment, a 1 (affective message) x 2 (source similarity) between-subjects design was conducted in Experiment 2 to determine whether source similarity affected positive attitude change toward older adults. For both experiments, average attitude change toward adults over age 65 from the pre-test Aging Semantic Differential (ASD) to the post-test ASD was the dependent measure. Figure 1 graphically depicts Experiment 1.

(Figure 1 about here)

#### **Participants**

Because this research study presented an attempt to change attitudes toward older adults among those who are not old, college students were deemed to be appropriate participants. Not only are students a relevant outgroup, these mass communication students are also the ones who will be creating media messages in the future. Undergraduate students enrolled in at least one course in the School of Journalism and Mass Communication at the

University of North Carolina at Chapel Hill were recruited from several undergraduate classes and the student subject pool for voluntary participation in the study. Students in the subject pool received one hour of research credit for their participation.

### **Procedure**

All participants completed a pre-test of general survey questions and the dependent measure of attitudes toward older adults (Aging Semantic Differential, Rosencranz & McNevin, 1969) (See Appendix A). In order to minimize the potential effect of the pre-test on post-test measures, the pre-test questions for this study were mixed in with pre-test questions for two other studies on other social topics being run during the same semester.

All subjects came from the same population of undergraduate students taking at least one course in the School of Journalism and Mass Communication. Students in the subject pool were placed in the immediate time of post-test condition due to the probability of high attrition among those who would show up for the second session because these sessions were scheduled outside of normal classes. Intact groups of students in classes were assigned to the delayed post-test condition so that there would be higher assurance of attendance for the second session. Message types were randomly assigned to all participants.

Two hundred undergraduate students participated in the first experiment (message and time), while 54 participated in the second experiment (source). Each participant completed the pre-test, read one simulated Yahoo.com news article, and completed the post-test. Due to participant attrition, not all cell sizes were equal: cognitive/immediate n = 30; cognitive/delayed n = 39; affective/immediate n = 28; affective/delayed n = 39; mixed/immediate n = 26; mixed delayed n = 38; source similar n = 28; and source dissimilar n = 26.



All participants signed a consent form, and were presented with a print-out of a simulated Yahoo.com news article at the appropriate time for their time of post-test condition. Due to the lack of large computer labs, a print-out mimicking a Yahoo.com Web page was used. The design of the printed materials included links, ads, etc. that would appear on an actual Yahoo.com Web page in order to achieve the highest realism possible. Participants were given as much time as they need to read the articles.

### **Time of Post-Test**

In Experiment 1 time of post-test following exposure to the stimulus materials was manipulated. Those in the immediate condition completed the pre-test in their first session, then read the simulated Yahoo.com news article and completed the post-test immediately after exposure to the stimulus materials in the second session held one week after the pre-test session. Those in the delayed condition took the pre-test and read the news article in their first session, then completed the post-test one week after being exposed to the stimulus materials in their second session.

In Experiment 2, all participants completed the pre-test in their first session and then read the article and completed the post-test questionnaire in their second session. There was no time delay condition in Experiment 2.

### **Stimulus Materials**

The simulated articles were designed to reflect a press release disseminated to the media that was published by Yahoo.com. The content of the simulated Yahoo.com news article combated two typically held negative stereotypes of adults over age 65. Three messages were written to vary message type: a cognitive appeal, an affective appeal, and a mixed cognitive-affective appeal. These three messages were equated for length (the range

was 464 to 468 words), number of paragraphs (six), number of graphic elements (two), and argument rationale. The messages were kept short and only combated two negative stereotypes of aging because lengthy or complex messages can thwart elaboration (Petty, Priester, & Brinol, 2002). Furthermore, all messages contained the same links, advertisements, and mechanical format (layout, typeface and size, colors, etc.).

### **Message type**

#### **Cognitive appeal**

Borrowing from the operationalization of cognitive and affective appeals in research studies discussed previously (Fabrigar & Petty, 1999; Main, et al., 2004; Millar and Millar, 1990; Rosselli, et al., 1995; Stafford & Day, 1995), the cognitive appeal was a direct, factual presentation characterized by objectivity that included statistical research information and was designed to stimulate thinking. The added visual elements in the cognitive message were two graphs representing research findings. The motivation for dismissing the two negative stereotypes of aging was presented as an appeal to rationally processing factual truth based on logical argument. For example, summarizing statements included “the facts speak for themselves,” “this study offers evidence,” and “the research proves that growing old can be a great time in life.” The call for attitude change was specifically to “think about the facts” and for “more understanding.”

#### **Affective appeal**

The affective appeal contained subjective evaluations presented by personal experiences of individual older adults, focused on feelings, and included anecdotal information (Aday, 2006; Fabrigar & Petty, 1999; Main, et al., 2004; Millar & Millar, 1990; Rosselli, et al., 1995; Stafford & Day, 1995). For example, personal evaluations included “I

feel happier,” and “what I can give [...] means far more to me.” The added visual elements in the affective message were two photographs of happy older adults. The motivation for the audience to reject the two negative stereotypes of aging was presented as an appeal to feelings of empathy and compassion. The call for attitude change was specifically for “opening your hearts” and for “more compassion.”

### **Mixed cognitive-affective appeal**

The mixed cognitive-affective message incorporated text from both the cognitive message and the affective message. To keep the number of visual elements consistent among conditions (two graphic elements in each), the added visual elements in the mixed cognitive-affective message included one graph of research results from the cognitive message and one photograph of happy older adults from the affective message.

Stimulus materials for message type can be seen in Appendix B.

A manipulation check on message type was administered to a convenience sample of 15 graduate students. They were given copies of all three message conditions and asked to identify which article represented the cognitive appeal, the affective appeal, and the mixed cognitive-affective appeal. The cognitive message and the affective message were correctly identified by all students (100%), while the mixed cognitive-affective condition was correctly identified by 14 of the 15 participants (93%).

### **Source Similarity**

A simulated Yahoo.com news article was used as the stimulus material in Experiment 2 to test the effect of source similarity. The affective message created for testing message type in Experiment 1 was used as the template, with a few modifications including adding source similarity/dissimilarity. The affective message from Experiment 1 was used in the

source experiment because this message condition contained multiple exemplars in the form of personal quotes by people of a given age. Furthermore, the source in the affective message was presenting his own personal experience and perceptions of working with older adults, and his age therefore might be relevant. In the cognitive and mixed cognitive-affective message conditions, the source was a spokesperson for AARP and delineating his or her age could have appeared a strange characteristic to be reporting.

In the source similarity experiment, the source was described as a 19-year old college student volunteer at AARP in one condition; in the other condition, the source was described as a 68-year old volunteer at AARP. With the exception of those differences, everything else in both conditions was held constant, including source name, gender, and quotes given.

Source similarity stimulus materials appear in Appendix C.

### **Dependent Variables and Measures**

To avoid the problem of using ageist terminology that might bias responses, “elderly,” “old,” “the aged,” and “senior” were not used. Research has shown that specifying an age range is the most neutral means of delineating age (Polizzi & Millikin, 2002), and most gerontologists recommend using terms such as “older people,” “older adults,” and/or “older persons” (Ferraro & Steinhour, 2005). Therefore, all instructions and questions on the survey referred to “people or a person over age 65.” The survey was comprised of a series closed-ended questions of general interest related to older adults and the Aging Semantic Differential (ASD) to specifically measure attitude toward persons over age 65.

The Aging Semantic Differential (ASD) was developed by Rosencranz and McNevin (1969). Even though this instrument is dated, it remains recommended as a measurement of attitudes toward older adults. For example, O’Hanlon and Brookover (2002) state that

“exploration of change in student beliefs and attitude has tended to focus on standardized measures such as the ASD” (p. 715). In discussing measures of attitudes toward older adults, Kite and Wagner (2002) point out that the ASD is a commonly used instrument that “has proven an easy-to-administer and reliable measure of global attitudes toward older adults” (p. 132). Palmore (1990), who developed the Facts on Aging Quiz, a 25-item true-false test designed to measure knowledge of facts related to aging in terms of pro or con bias, has claimed that the ASD offers a more “accurate and direct measure of attitudes” than his Facts on Aging instrument (p. 144). Use of the ASD in this study was particularly appropriate since the ASD was “constructed as the means of measuring the valences of stereotypic attitudes” (Rosencranz, & McNevin, 1969, p. 55).

The ASD is a 32-item semantic differential scale comprised of bipolar adjective pairs, each with a 7-point Likert scale response format. With the responses ranging from 1 to 7, the possible overall attitude scores range from 26 to 182. A higher score indicates a more negative view of older adults than a lower score. While no reliability score was reported for the original ASD, Cronbach’s alpha was computed on the current study data to assess the reliability of the ASD scale. The figure was .937 for the ASD index.

Change in average attitude toward adults over age 65 was the dependent measure in both experiments. To compute change in attitudes, the average score of the 32 bi-polar adjectives on the ASD (with 1 being the adjective most favorable and 7 being the adjective least favorable) on the post-test were subtracted from the average score on the pre-test. Because a higher average score on the 7-point Likert scale represented a more negative attitude, a positive change in pre-test ASD average minus post-test ASD average indicated a positive change in attitudes while a negative change in average pre-test minus post-test ASD

score represented a negative change in attitudes.

## **Data Analysis**

### **Involvement**

A three-item index was formulated to gauge involvement in issues related to older adults. Personal involvement with the issue of old age was measured with three pre-test items that relate to the concept of involvement as used in the elaboration likelihood model: interest, relevance, and motivation. Specifically, the three questionnaire items measuring involvement were “How interested are you in topics related to people over age 65?” “How relevant to you are topics related to people over age 65?” and “How motivated are you to seek information about topics related to people over age 65?” All had a 7-point Likert scale response anchored by very interested-not at all interested, very relevant-not at all relevant, and very motivated-not at all motivated, respectively. To assess the reliability of the scale, Cronbach’s alpha was computed and the figure was .828.

Because two of the hypotheses depend on level of involvement (high involvement versus low involvement as predictive of which type of message would be most effective), the average involvement variable was recoded and split into three roughly equal groups based on percentage breaks (33% and 67%) in average involvement scores. These three groups were then coded categorically as “high involvement,” “medium involvement,” and “low involvement,” respectively.<sup>9</sup> The resulting cell sizes were high involvement n=55, middle involvement n=69, and low involvement n=76.

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<sup>9</sup> Again, in the ASD scale higher values represent more negative attitudes. In maintaining that type of configuration with the involvement variable, higher scores equaled lower involvement with issues related to older adults.

## CHAPTER 4

### RESULTS

#### **Experiment 1: 3 (Message) x 2 (Time of Post-Test)**

##### **Descriptive statistics**

Two hundred undergraduate college students (N=200) enrolled in at least one class at the School of Journalism and Communication at the University of North Carolina-Chapel Hill participated in this experiment. Age ranged from 18 to 31 years old; the mean age was 20, the median age was 20, and the mode was 20 as well. The majority of students in the study (75%) were majoring in one of the specialties in mass communication (advertising, public relations, broadcasting, or journalism) while 25% were majoring in fields outside the School of Journalism and Mass Communication. Seventy-three percent of the participants were female and 27% were male. The dominant race was Caucasian (88%), followed by African-American (6%), Asian (3.5%), Hispanic (1.5%), and Other (1%).

##### **Overall attitude change from reading the Yahoo.com article**

**Research question 1** asked whether reading a news article about positive aspects of aging could influence positive attitude change toward older adults. A paired-samples *t* test on the repeated-measures of the ASD (pre- and post-test) was conducted (N=200) for all message type and time of post-test conditions combined and the results indicated that the mean of the pre-test ( $M = 3.9$ ,  $SD = .71$ ) was significantly ( $p < .001$ ) greater than the post-test

( $M = 3.6, SD = .64$ ), confirming that attitudes toward older adults significantly improved after being exposed to the stimulus materials.<sup>10</sup>

### **Duration of positive attitude change**

ANOVA results comparing attitude change by time of post-test (ANOVA results presented subsequently) demonstrated that positive attitude change was significantly ( $p < .001$ ) greater when the post-test was administered immediately following exposure to the stimulus materials rather than one week afterward. To determine if there was a significant positive attitude change in the delayed condition in-and-of-itself, a paired-samples  $t$  test on the repeated measures of average attitude change pre- and post-test for the delayed condition was performed. The results showed that the mean of the pre-test ( $M=3.88, SD=.67$ ) was significantly ( $p < .001$ ) different than the post-test mean ( $M=3.62, SD=.60$ ) and the attitude change was positive. Therefore, there was a significant ( $p < .001$ ) positive change in attitude toward older adults one week after exposure to the stimulus materials.

### **Knowledge of ageism compared to knowledge of racism and sexism**

Descriptive statistics were run on a pre-test survey question that ascertained the participants' knowledge of ageism, racism, and sexism on a 7-point Likert scale with anchors of "very knowledgeable" and "not at all knowledgeable" (reverse coded as 1 and 7, respectively) . A lower score reflected higher knowledge of the "ism." The mean pre-test scores indicate that participants had more knowledge of racism ( $M = 2.53, SD = .91$ ) and sexism ( $M = 2.95, SD = 1.14$ ) than of ageism ( $M = 4.22, SD = 1.37$ ).

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<sup>10</sup> Higher scores on the 7-point Likert scale in the ASD indicated more negative attitudes toward older adults; lower scores indicated more positive attitudes. Therefore, in the dependent measure of change in attitudes pre-minus post-test, the higher the positive outcome, the more improvement in attitude.



### **Liking the news article/thinking it was well-written and attitude change**

To answer whether there was a correlation between subjects liking the article or thinking the article was well-written with change in ASD pre- and post-test average scores, correlation coefficients were computed. A negative correlation coefficient represents a positive correlation. This is because the 7-point Likert scale response for “how much did you like the Yahoo.com article” was anchored by “very much” (1) and “not at all” (7), and the 7-point Likert scale for “how well-written do you think the Yahoo.com article was” was anchored by “very well written” (1) and very badly written (7). In other words, the lower the score on these two items, the better. However, the change in ASD score is based on pre-test minus post-test average ASD scores, so the higher the score, the more positive the attitude change. There were significant correlations for both liking the article and positive attitude change ( $p=.004$ ) and thinking the article was well-written and positive attitude change ( $p=.016$ ). However, the correlations for both were quite weak:  $r = -.204$  for liking the article and change in average ASD pre-test/post-test scores and  $r = -.171$  for thinking article was well-written and change in average ASD pre-test/post-test scores. The results are presented in Table 1.

(Table 1 about here)

### **Initial attitudes toward adults over age 65**

To determine overall initial attitudes toward older adults among the subject population, descriptives were run on the average pre-test ASD score. Again, a lower score on the 7-point Likert scale indicates a more favorable attitude toward older adults than does a higher score. The range ( $M=3.72$ ) of average pre-test ASD mean scores was 2.09 to 5.81, demonstrating wide variation in subjects’ initial attitudes toward older adults. The mean pre-

test average ASD score was 3.92,  $SD=.639$ . With 4 as the midpoint, this initial ASD average mean score demonstrates an ambivalence in attitudes toward older adults overall. An initial negative attitude toward adults over age 65 was not evident. The same descriptives were run for the average post-test ASD mean score, which showed improvement in attitudes toward older adults with a mean of 3.55,  $SD=.715$  (compared to 3.92 for the pre-test). The post-test range still indicated a wide range ( $M=3.82$ ) in overall attitudes toward older adults with a range from 1.44 to 5.26. As stated previously through a paired-samples t test, the difference in average ASD scores pre- and post-test was significant ( $p < .001$ ), with the post-test mean ( $M=3.55$ ,  $SD= .715$ ) being more favorable than the pre-test mean ( $M=3.92$ ,  $SD=.715$ ).

To determine which individual characteristics (represented by the 32 bi-polar adjective pairs on the ASD) were perceived the most negatively and most positively for people over age 65, descriptive statistics were calculated for the mean of each ASD item on the pre-test. On the ASD, higher scores on the 7-point Likert response for each item represented more negative views (the less favorable adjective) than lower scores (the more favorable adjective). The students viewed older adults the least favorably on the adjective pairs progressive-old-fashioned ( $M = 5.81$ ,  $SD=.884$ ) and liberal-conservative ( $M = 5.45$ ,  $SD=1.06$ ), while they viewed older adults the most favorably on the adjective pairs friendly-unfriendly ( $M = 2.77$ ,  $SD=1.14$ ), consistent-inconsistent ( $M = 2.81$ ,  $SD=1.22$ ), and generous-selfish ( $M = 2.88$ ,  $SD=1.21$ ). The Yahoo.com stimulus materials were designed to combat the negative stereotypes of older adults as non-productive and unhappy; the pre-test attitude score means on these two ASD items were slightly favorable (productive-unproductive  $M = 3.82$ ,  $SD = 1.23$  and happy-sad  $M = 3.30$ ,  $SD = 1.10$ ). Means in descending order for all adjective items on the ASD pre-test are presented in Table 2.

(Table 2 about here)

## **Factor Analysis**

### **Original ASD factor analysis**

A factor analysis of the original ASD data established three common stereotypic dimensions. The factor showing the highest factor loadings was termed the Instrumental-Ineffective dimension, which was interpreted to relate to whether the older person was capable of actively pursuing goals and suited for “being where the action is” (Rosencranz & McNevin, 1969, p. 56). This factor contained items such as progressive-old fashioned, healthy-unhealthy, productive-unproductive, liberal-conservative, and aggressive-defensive.

The second factor from the original ASD factor analysis was termed Personal Acceptability-Unacceptability, wherein a lower score related to a person having little difficulty in his/her social world and being able to maintain high levels of social interaction. Items such as generous-selfish, handsome-ugly, tolerant-intolerant, and happy-sad loaded onto this factor.

The third original ASD factor was labeled “Autonomous-Dependent” and related to a person being able to “contribute at least as much energy to the functioning of his social system as he derives from others for his personal maintenance” (Rosencranz & McNevin, 1969, p. 56). This dimension included items such as independent-dependent, satisfied-dissatisfied, organized-disorganized.

### **Factor analysis on current data**

With the original factors as a baseline for comparison, a new exploratory factor analysis was conducted on the current data. All 32 items on the ASD pre-test were used as variables with values from the 200 cases. A principal components analysis, which analyzes

variance, was initially completed to determine the factorability of the correlation matrix for the data set. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy from the initial principal components analysis was .915, which indicated a strong common factor structure. In examining outliers among cases, Mahalanobis Distance was calculated for each case and compared to the critical value of  $\chi^2 (.001, 32) = 62.48$ . Based on this analysis, 6 cases with Mahalanobis Distance values greater than 62 were excluded.

Several criteria were used to determine the number of factors to rotate. First, the initial Principal Components Analysis yielded 6 eigenvalues greater than 1, indicating as many as 7 factors. A scree plot indicated there were likely 3 or 4 factors. The original factor analysis for the ASD indicated 3 factors. To identify potential common factors underlying the variables, exploratory principal axis factoring was performed with rotations for 3, 4, 5, and 6 factors.

First, an orthogonal rotation was tried, but an oblique rotation was found to be a better fit with fewer double loadings. The three factor direct oblique rotation appeared to be the best although all factor solutions did contain some double loadings and weak loadings. In the three factor solution, the rotation sums of squared loadings indicated that factor one accounted for 10% of the variance, factor two accounted for 9.2%, and factor three accounted for only 2.7%. Factor three appeared to be the weakest with lower loadings, but again, there were weak loadings present on all three factors. In the three factor solution, there were less double loadings than when increasing the number of factors. Loadings were considered double loadings if there was less than .3 difference between loadings on more than one factor.

In the three factor solution, the first two factors appeared to correspond fairly well with the original ASD factors of Instrumental-Ineffective and Acceptability-Unacceptability.

The third factor did not appear to correspond with the third original ASD factor dimension of Autonomous-Dependent (A-D). Factor three in the current analysis appeared to relate loosely to difference in openness versus being inflexible or rigid with items such as liberal-conservative, tolerant-intolerant, and flexible-inflexible. It was therefore termed the Open-Inflexible dimension. The pattern matrix for the Direct Oblique 3-factor solution can be seen in Table 3.

(Table 3 about here)

### **Message Type and Time of Post-Test**

A two-way analysis of variance (ANOVA)<sup>11</sup> was conducted to evaluate the effects of three message type conditions and two time of post-test conditions on change in overall attitude toward older adults pre-test to post-test and possible interaction between message type and time of post-test. Descriptive statistics are reported in Table 4. Even though the number of cases in each group varied, Levene's test,  $F(5, 194) = 1.88, p = .099$ , confirmed that error variance of the dependent variable was equal across groups.

(Table 4 about here)

The results for the ANOVA are summarized in Table 5. There were significant differences in the main effects of message type ( $F(2, 194) = 56.84, p < .001$ ) and time of post-test ( $F(1, 194) = 8.37, p < .001$ ) but no interaction between message and time of post-test ( $F(2, 194) = 1.71, p = .184$ ). The time of post-test main effect indicated that positive attitude change was significantly higher ( $p = .004$ ) when the post-test was administered

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<sup>11</sup> For all statistical procedures, the data cells were screened for reasonably normal distribution, with skewness (Sk) and Kurtosis (Ku) between -3 and +3, unless noted otherwise. In addition, all statistical tests were performed at the .05 level unless specified otherwise. Furthermore, all ANOVAs were conducted with all cases and then again deleting outlier cases. If there was no difference in the significance of main effects or interactions when deleting outliers, the full data set was used. If deleting outlier cases made a difference in statistically significant results of main effects or interactions, the data set minus outlier cases was used and noted. Lastly, missing data were not included in the analyses.

immediately ( $M = .486, SD = .06$ ) following exposure to the stimulus materials rather than one week later ( $M = .259, SD = .05$ ), but this was not a focus of this study.

**Research question 2** asked which message type would be most effective in positively changing attitudes toward older adults. Follow-up to the main effect for message type examined this question. The follow-up tests consisted of all pairwise comparisons among the three message types. The Tukey HSD procedure was used to control for Type I error across the pairwise comparisons. (In comparing means, note that higher scores on the 7-point Likert scale used in the ASD indicated more negative attitudes toward older adults; lower scores indicated more positive attitudes. Therefore, in the dependent measure of change in average ASD attitudes pre- minus post-test, the higher the positive outcome, the more improvement in attitude.) The results indicated that the cognitive message ( $M = .958, SD = .07$ ) produced a significantly greater ( $p = .000$ ) positive attitude change toward older adults than either the affective ( $M = .071, SD = .07$ ) or mixed cognitive-affective ( $M = .088, SD = .07$ ) messages. There was no significant difference ( $p = .933$ ) between the affective and the mixed cognitive-affective messages.

This two-way ANOVA also answered Hypothesis 3 and Hypothesis 4. (A separate two-way ANOVA for involvement that answers Hypothesis 1 and Hypothesis 2 will be presented subsequently.) **Hypothesis 3** predicted that the cognitive message would be better at producing positive attitude change toward older adults than the affective or mixed cognitive-affective message in the delayed time post-test condition. This hypothesis was not supported because there was no significant interaction between message type and time of post-test ( $F(2, 194) = 1.71, p = .184$ ). Similarly, **Hypothesis 4** predicted that the affective message would produce greater positive attitude change toward older adults than the cognitive

or mixed cognitive-affective message in the immediate post-test condition. This hypothesis was not supported either due to the lack of a significant interaction ( $p = .184$ ) between message type and time of post-test.

(Table 5 about here)

In summary, the cognitive message produced significantly ( $p < .001$ ) more positive change in attitudes toward older adults than the affective message or the mixed cognitive-affective message. There was significantly ( $p < .001$ ) more attitude change when the post-test was administered immediately after exposure to the stimulus materials than when administered one week later. There was no significant ( $p = .184$ ) interaction between message type and time of post-test.

### **Message Type and Involvement**

A two-way ANOVA was conducted to evaluate whether there was any interaction between effectiveness of the three message types and three levels of involvement on positive change in average attitudes toward older adults on the ASD pre-test to post-test. The levels of involvement were based on splitting the average pre-test involvement index score into three roughly equal groups (based on percentiles of 33 and 67). The resulting groups were designated as high involvement ( $M=3.3, SD=.73$ ), medium involvement ( $M=4.9, SD=.39$ ), and low involvement ( $M=6.2, SD=.43$ ). A one-way ANOVA was conducted to determine whether the means for involvement for the three groups were different. There were significant differences between groups ( $F(2,197) = 518.82, p < .001$ ).

It should be noted that average involvement is *relative* because even the highest average level of involvement contained scores over 4.00 on a 7-point Likert scale where higher scores meant less involvement. In other words, the population was heavily skewed

toward low involvement: on a 7-point Likert scale only 19% (N=38) of participants scored under 4.0 on average involvement; 8.5% (N=17) scored 4.0 exactly on average involvement; while 72.5% (N=145) scored higher than 4.0 on average involvement.<sup>12</sup>

Descriptive statistics are reported in Table 6. Levene's test,  $F(8, 191) = 1.43$ ,  $p = .185$  indicated that error variance of the dependent variable was equal across groups.

(Table 6 about here)

The results for the two-way ANOVA are summarized in Table 7.

(Table 7 about here)

**Hypothesis 1** predicted that those students with low involvement in issues related to older adults would have stronger positive attitude change toward older adults when exposed to the affective message than when exposed to the cognitive or mixed cognitive-affective message. This hypothesis was not supported because there was no significant interaction between message type and level of involvement ( $F(4,191) = 2.20$ ,  $p = .07$ ). Similarly, **Hypothesis 2** predicted that for those students with high involvement, the cognitive message would produce greater positive attitude change than the affective or mixed cognitive-affective messages. This hypothesis was not supported either because of the lack of a significant interaction ( $p = .07$ ) between message type and level of involvement.

## **Experiment 2: 1 (Message) x 2 (Source)**

### **Descriptive statistics**

Fifty-four undergraduate college students (N=54) enrolled in at least one class at the

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<sup>12</sup> Again, in the ASD scale higher values represent more negative attitudes. In maintaining that type of configuration with the involvement variable, higher scores equaled lower involvement with issues related to older adults.



School of Journalism and Communication at the University of North Carolina-Chapel Hill participated in Experiment 2. Age ranged from 18 to 22 years old; the mean age was 20, the median age was 20, and the mode was 20 as well. The majority of students in the study (91%) were majoring in one of the specialties in mass communication (advertising, public relations, broadcasting, or journalism) while 9% were majoring in fields outside the School of Journalism and Mass Communication. Sixty-nine percent of the participants were female and 31% were male. The dominant race was Caucasian (85%), followed by African-American (3.7%), Asian (3.7%), Hispanic (3.7%), and Other (3.7%).

#### **Source: Similar and Dissimilar**

An independent-samples  $t$  test<sup>13</sup> was conducted to evaluate the effect of source conditions (similar age college student or older-aged adult) on change in overall attitude toward older adults. Even though the number of cases in each group varied slightly, Levene's test,  $F(28) = 2.31$ ,  $p = .134$ , confirmed that error variance of the dependent variable was equal across groups. Descriptive statistics are reported in Table 8.

(Table 8 about here)

**Hypothesis 5** predicted that greater positive attitude change toward older adults would occur when the source shared the similar characteristics of age and being a college student with the audience. This hypothesis was not supported because there was no significant difference between the similar source and the dissimilar source in producing positive average attitude change toward adults over age 65 ( $t(28) = -1.01$ ,  $p = .317$ ).

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<sup>13</sup> The data cells were screened for reasonably normal distribution, with skewness (Sk) and Kurtosis (Ku) between -3 and +3. The  $t$  test was conducted on all cases and then again deleting outlier cases. There was no difference in the significance of findings when deleting outliers so the full data set was used. Missing data were not included in the analysis.

## CHAPTER 5

### DISCUSSION

#### Overview

This experimental research study addressed the effects that message type and source similarity in mass media messages have on attitudes toward older adults among college-age students. The purpose of the study was to investigate public relations message strategies that can be employed to combat negative stereotypes that stigmatize a social group, in this case older adults. Due to the large population of aging baby boomers, efforts to combat prejudice and discrimination against older adults—termed ageism—has particular importance for age organizations striving to enhance the overall quality of life for older adults. In particular, this study investigated cognitive, affective, and mixed cognitive-affective message strategies as well as source similarity in published press releases that were designed to combat two typically held negative stereotypes of adults over age 65. As presented in the literature review, there is no one defining theory related to effectiveness of cognitive, affective, or mixed messages in persuasive communication. Rather, there is contrasting evidence for the effectiveness of each message type, so a research question was posed regarding overall effectiveness of message type in positively changing attitudes toward older adults. The elaboration likelihood model provided the basis for hypotheses regarding the effectiveness of the cognitive and affective message types in regard to duration of attitude change and level of involvement.

The participants in this study were college students with an average age of 20. The

driving theory behind attempting to change attitudes in young adults came from social identity theory, which explains intergroup comparisons. Because young adults do not belong to the social group of older adults, according to social identity theory young adults will tend to place negative characteristics on the social group of older adults in order to increase their own positive distinctiveness. In addition, social identity theory suggests that the only way to actually improve the social identity of members of a marginalized group—in this case older adults subjected to ageism—is to positively change negative attitudes toward the group in those who do *not* belong to that group. In social identity theory, the strategy of changing outgroup attitudes is termed “social competition.”

As with message type, there is no one defining theory related to source similarity. However, one possibility suggested by social identity theory is that people are more likely to be persuaded by those who share similar characteristics with them. This could be particularly relevant when addressing attitudes toward a different group. Therefore, a hypothesis was formed that young adults would be more effectively persuaded by a message presented by a source similar to them rather than dissimilar.

### **Theoretical Implications**

One of the critiques of the ELM is that it lacks sufficient empirical testing. This study, within limitations, provided one source of empirical testing of the ELM by forming hypotheses based on predictions of the ELM. The results of this study challenged the ELM's predictions of which message type would be most enduring. The ELM predicts that message processed cognitively will be more enduring, but the results of this study indicated no significant interaction between message type and time of post-test. In addition, the ELM predicts that messages processed on the peripheral route, which was equated with the

affective message condition in this study, will be more effective for recipients with low involvement. In this study, the results were the opposite—the vast majority of participants had low involvement with issues related to older adults and yet the cognitive message was significantly more effective in producing positive attitude change than either the affective or mixed cognitive-affective message.

This study also makes a contribution to social identity theory. The basic tenet of SIT is that people will compare their group (the ingroup) favorably to other relevant groups to which they do not belong (outgroups) in order to build their own self esteem. SIT does, however, present that it is possible for an outgroup to gain a more favorable social identity through the maintenance of social competition whereby negative attitudes held by other groups toward them are changed positively. Perhaps because social competition actually goes against the basic tenet of social identity theory, it has not been well explicated. The most common descriptors of social competition are the civil rights movement and the women's movement wherein negative attitudes toward Black people and females were changed to be more favorable by outgroups. This study adds a key component to the social competition maintenance strategy by demonstrating that mass media messages can be one means of effectively creating a more positive attitude toward a traditionally marginalized group.

Social identity theory contributed to this study by explaining the basis for younger people holding negative perceptions of the social group of older adults. However, SIT lacks in predictive capacity beyond explanation of intergroup comparisons. When considering the social grouping of older adults in particular, questions arise in SIT as to what difference it makes that this group is a group into which all people will one day belong barring early death. There has also been evidence that older adults themselves hold negative views of aging.

Future research repeating this study with participants of different ages, including older adults themselves, would lend more insight into the theoretical implications to social identity theory of this unique social grouping.

In terms of exemplification theory, this study challenged one of the predictions that could be made based on that theory. While exemplification theory predicts that exemplars (such as quotes, photographs, and personal experience) are more effective than objective base-rate data (such as statistical data and findings from surveys) in changing perceptions, the opposite was found in this study. The cognitive message condition contained objective base-rate data and yet it was significantly more effective in producing positive attitude change toward older adults than was the affective message condition which contained quotes and personal experience.

### **Message Type**

Experiment 1 demonstrated that presenting fact-based cognitive arguments supported by research evidence was a more effective message strategy for producing positive attitude change toward older adults than were affective messages based on emotional appeals, subjective personal evaluations, and compassionate arguments or a combination of cognitive and affective appeals. This supports the elaboration likelihood model, wherein “the cognitive (central) aspect ... overshadows its affective (peripheral) aspect, and the underlying suggestion of this model is that an attitude change is mostly reached through cognition rather than emotion” (Morris, Woo, & Singh, p. 79).

Another possible explanation for the relative strength of a cognitive message strategy over an affective one in producing positive attitude change toward a marginalized group—in this case older adults—may be that stereotypes about an outgroup are grounded in

individuals' generalized perceptions rather than fact and thus can be combated more effectively through factual evidence. Social identity theory suggests that members of one group—in this case, young adults—actively compare themselves favorably to members of an outgroup such as older adults in order to build their own self-esteem. The young adults, therefore, could be motivated to discount the personal testimony in the affective appeals presented by older adults of their own happiness and productivity as isolated cases or insubstantial. It would be more difficult, however, to disregard factual evidence presented in the cognitive-based message.

Another consideration related to the effectiveness of the cognitive message over the affective message could be the fact that the participants in this study were undergraduate students at a university that stresses the importance of empirical research. Thus they may have been predisposed to granting credibility to research findings rather than to the subjective statements made by individual older adults in the affective message. Future research with young adults aged 18-22 who are not college students is recommended to determine if results would differ for other sub-populations of young adults. Furthermore, future research with higher numbers of male participants and minority participants for ample cell sizes would be helpful in determining whether gender and/or race are variables that affect which message type would be most effective. Based on the concept of intersectionality, there are also future implications in research that would address whether any combination of race and gender affected which message type was most effective. It could be that differences would appear, for example, between Black females and White males.

The strength of the cognitive message in this study contradicts what would be expected based on exemplification theory. Exemplification theory suggests that audiences

exposed to media messages about an issue form judgments about that issue based more on exemplars, such as direct quotes, in the message than on quantitative base-rate data, even when that data is quite precise. The affective message condition in this study contained several direct quotes from older adults that combated negative stereotypes about their productivity and happiness, yet the cognitive message was more effective. This might be explained by the fact that exemplification theory studies have investigated perceptions of issues such as risk for disease and safety rather than perceptions about groups of people. In other words, exemplification research has not been based on attitudes related to intergroup perceptions or characteristics of groups of people but rather issues such as health and safety risks.

Generally, research addressing message type has explored cognitive versus affective messages, but the current study also included a mixed cognitive-affective message. Because of the contradictions evident in the literature on effectiveness of cognitive versus affective messages, it might have been expected that the mixed cognitive-affective message would produce the greatest positive attitude change simply due to the combination of persuasive elements from both cognitive and affective appeals. Presenting research evidence buttressed by personal experience in the form of individual quotes of subjective evaluations might contain “the best of both worlds.”

However, the results indicate that the mixed cognitive-affective message was not as effective as the cognitive message. One explanation for this finding may be that because the articles were short in length (less than 500 words) and equated in length among message types, combining a portion of the cognitive message with a portion of the affective message for the mixed message sacrificed depth of information. Future research utilizing media

platforms with longer lengths than press releases, such as brochures or Web site content, could serve to more clearly determine whether length diminished the effectiveness of the mixed message in this study.

The relative ineffectiveness of the mixed message could also relate to losing clarity by mixing message appeals. Perhaps a single type of appeal adds strength to an argument. The findings of this study indicate that age-based organizations creating press releases aimed at improving attitudes toward older adults should make an effort to present a singular cognitive message based on factual evidence.

### **Message Type, Involvement, and Time of Post-Test**

The strength of the cognitive message in this study supports the overall tenet of the elaboration likelihood model (ELM) that attitude change processed cognitively is stronger than attitude change resulting from processing on the peripheral route (linked with the affective message). However, the findings of this study do not support the predictions of the ELM in regard to involvement. The ELM predicts that persons with high involvement in an issue will be more likely to pay attention to cognitive cues such as facts, while those with low involvement will be more likely to pay attention to peripheral cues such as message source. However, in this study, there was no interaction between message type and level of involvement. Furthermore, despite the fact that participants had relatively low involvement overall in issues related to older adults, the cognitive message was the most effective in producing positive attitude change toward older adults. Additional research is needed with populations varying more in amount of involvement to better address the relationship between message type and involvement. It is also possible that additional items, such as contact with older adults, might be added to the index measuring involvement to widen the range of



involvement. In this study, only three items that relate to involvement as defined in the elaboration likelihood model—motivation, involvement, and relevance—were used to measure involvement.

A similar result—i.e., no significant interaction—was also found in regard to message type and effectiveness based on duration of time between exposure to the stimulus materials and post-test of attitudes toward older adults. The results did not support the ELM prediction that a cognitive message would produce longer lasting attitude change. According to the ELM, the cognitive message would have been more effective than the affective message when the post-test was administered one week after exposure to the stimulus materials. The findings of no interaction between message type and time of post-test in this study, therefore, negate use of the ELM in predicting that a cognitive message will produce attitude change that is more enduring over time. Outside of the ELM, this finding also contests theoretical arguments presented in the literature review that affective messages are very effective in producing immediate attitude change as there was no interaction between message type and time of post-test.

### **Source Similarity**

The findings from Experiment 2 showed that similarity of source in the stimulus materials made no significant difference in positive attitude change even though the expectation was that college students would be persuaded—or more likely to listen to—viewpoints given by someone similar to themselves. The lack of any difference in attitude change given a similar source or dissimilar source in this study, however, may have been mediated by the fact that the stimulus materials for the source similarity experiment utilized the affective message type. As noted, the affective message proved significantly less effective

in producing attitude change than the cognitive message. There is the possibility that the participants paid less attention to and gave less credence to this message overall, including age of the source. Additional research should be conducted on source similarity, including using cognitive-based appeals in the study design, in order to reach more conclusive results that could be applied to public relations message strategies in combating an “ism” such as ageism. It also might be beneficial to feature a photograph of the source to make the source stand out more in the stimulus materials. Furthermore, future research repeating the source similarity experiment could benefit from manipulating demographic characteristics such as race and/or gender. The current study used a male source without racial specification with age being the only source manipulation.

### **Summary for Practical Application**

The summary of results related to message type clearly indicate that public relations practitioners from age organizations should use rational, fact-based arguments supported by research evidence to combat negative stereotypes of older adults. This study showed that emotional appeals and subjective evaluations presented on their own (affective message) or in combination with a cognitive appeal were significantly less effective in producing positive attitude change toward older adults than a strictly cognitive message. In order to test the applicability of this message strategy in combating other “isms” such as racism or sexism, future research replicating this study with relevant outgroups and materials designed to contest relevant negative stereotypes of other marginalized groups is recommended.

Other findings in this study have practical application for public relations practitioners

involved in promoting the welfare of older adults. For example, through the comparison of overall average attitudes toward older adults on the pre-test to overall attitudes toward older adults on the post-test, it was shown that simply exposing younger persons to messages that combat negative stereotypes of older adults positively changed their attitudes toward older adults (all message types included). Furthermore, even though the simulated Yahoo.com news articles combated two commonly held negative stereotypes of older adults (being useless/non-productive and miserable/depressed), exposure to the article had a broad effect in changing overall attitudes toward older adults.

In social identity theory, the one means of improving the status of a marginalized group—termed “social competition”—is to change the attitudes toward them held by outgroups. While social competition is often described as social activism and/or social protest such as the civil rights movement or the feminist movement, this study makes a contribution to social identity theory by demonstrating that mass media messages are a valid component of social competition. Age organizations need to produce messages for mass distribution and get those messages out to outgroup members (in this case, younger people). A clearly presented cognitive appeal based on facts and research evidence, even if it only combats a small number of negative stereotypes, can have a positive effect on overall attitudes toward older adults. In addition, this study also demonstrates that attitude change following exposure to such messages is not just immediate, but continues one week later. Even though positive attitude change measured immediately after exposure to the stimulus materials was greater than attitude change one week after exposure to the stimulus materials, significant positive attitude change was still present one week later.

## **Other Findings**

Some other findings of this study are also worthy of discussion. As presented in the literature review, the dimension often termed the most negative toward older adults is related to their lack of productivity/usefulness. Indeed, the most dominant factor dimension from the original ASD was the “Instrumental-Ineffective” dimension relating to an older person’s ability to actively pursue goals. However, in this study, the most negative dimension of attitudes toward older adults was not related to productivity/effectiveness, but rather to openness (the Open-Inflexible dimension). Participants in this study held the most negative perceptions of older adults in terms of them being inflexible, old-fashioned, intolerant, and conservative. Surprisingly, the young adults in this study did not hold strongly negative attitudes toward older adults overall as measured at the onset of the study in the pre-test. Rather, the participants appeared to be ambivalent toward older adults with average ASD scores in the mid-range of a 7-point Likert scale. Social identity theory would predict that attitudes toward older adults among young adults would be more negative, and the literature on ageism also suggests that young adults typically hold negative views toward older adults and aging in general. One explanation for the mid-range overall attitude scores in this study could be students striving to be politically correct or polite by marking perceptions deemed to be “appropriate” rather than reflective of their true inner feelings.

Another explanation for the lack of strong negative initial attitudes toward older adults among young adults could be a growing change in American society overall for acceptance of difference. Most young adults today have been exposed to information regarding diversity and efforts promoting acceptance of difference particularly in regard to race and gender. It is possible that general advancement in society regarding issues of diversity have had an impact

in improving negative attitudes held toward older adults as well.

### **Limitations and Future Implications**

There are certain limitations inherent in the use of experimental research methods, which include non-generalizability beyond the population participating in the study and the artificial setting in which participants are exposed to stimulus materials. Notable in this study was the predominance of Caucasian females. Due to high admission standards for the School of Journalism and Mass Communication at the University of North Carolina-Chapel Hill, it is also likely that this population would be ranked rather high in educational measures. Future research utilizing a more diverse group of young adults in terms of gender and race—and other demographic variables—would therefore be helpful.

Experiments are also limited in explanatory power. While this study demonstrated which message type was most effective in producing positive attitude change toward older adults, it did not offer any data on why the cognitive message was more effective than either the affective or mixed cognitive-affective message. Qualitative research is recommended presenting participants with the stimulus materials used in the experiment with open-ended questions about how the participants feel about each message, what they like and don't like about each message, etc. to gain richer data regarding why one message type or another is more apt to positively change attitudes.

Another limitation of this experimental study is that it utilized a relatively short media message (under 500 words, representative of a press release) with only a one-time exposure to the media message. Research using multiple exposures and messages longer in length should be conducted to determine the effectiveness of message types under different conditions. Furthermore, using channels such as broadcast with the capacity for video and/or audio might

affect which message type is most effective. For example, music could have an influence on producing stronger emotional response to the affective message in public relations materials such as a public service announcement. It would be interesting to investigate whether the addition of music as an audio supplement to an affective message would make that message type more effective in producing positive attitude change.

Furthermore, as noted previously, a sample with higher levels of involvement could possibly provide more insight into the applications of the elaboration likelihood model to attempts by age advocacy groups to counter negative attitudes toward older adults. A particular challenge of research such as this based on social identity theory, however, is that selection of outgroups for the subject population means they are not likely to have high involvement in issues related to the attitude-object population (the ingroup or older adults in this study). Achieving balanced levels of involvement is likely to remain problematic.

As noted in the method section, the Aging Semantic Differential (ASD) was selected for use as the measurement instrument for the dependent variable of attitude toward older adults in this study based on the scholarship in the field. Even though the ASD was constructed in 1969, it remains highly recommended as an excellent standardized measurement of attitude toward older adults by some of the most predominant scholars in the field of ageism. But one limitation of the ASD is that reliability scores were not reported for the original data. However, an alpha reliability score of .937 on the 32-item ASD index was obtained with data from the current study. Another limitation—albeit a small one—is that one of the 32 adjective pairs on the ASD contains sexist language. The item “handsome-ugly” could possibly have led subjects to only evaluate a male over age 65, rather than follow the instructions to evaluate people over age 65. Replacing the word “handsome” in that item

with “attractive” would be less gender-specific.

It should be noted that one scholar, Kenneth Polizzi (2003) at the Mississippi University for Women, recommended a revision of the original ASD for measuring attitudes toward older adults, while also acknowledging that the ASD is “one of the most widely used instruments for the assessment of attitudes toward the elderly” (p. 198). In particular, Polizzi argues for generating a more up-to-date list of adjectives. His proposed revision, published in *Educational Gerontology*, included:

- Deleting the original ASD adjective pairs of busy-idle and expectant-resigned
- Modifying 4 of the original 32 items based on the advice of a “committee of experts” (changed progressive-old-fashioned to progressive-conservative, handsome-ugly to attractive-unattractive, neat-untidy to neat-messy, and aggressive-defensive to aggressive-submissive)
- Addition of new adjective pairs including cheerful-crabby, kind-cruel, positive-negative, good-bad, and others
- Final revision down to 24 adjective pairs (based on high factor loadings) from 64 adjective pairs tested

A four-factor model of his final modified index was determined to account for the most variance (52%). It could be that Polizzi’s 24-item measurement of attitudes toward older adults may be adopted over the ASD by ageism scholars in the future.

This experimental study used attitudes toward older adults as the dependent measure but did not measure behavior intentions. Future studies incorporating behavior intentions as a dependent measure would be beneficial in determining what types of behavior public relations practitioners might hope for as a result of exposure to organizational messages striving to

improve perceptions of older adults.



Table 1

Pearson Correlations among Liking Article or Well-written Article and Change in Pre- and Post-Test ASD Scores

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	Change in Pre- and Post-test ASD Scores
Like Article	-.204**
Article Well-written	-.171*

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N=198, 2 missing cases

\*\*Correlation is significant at the .01 level (2-tailed)

\*Correlation is significant at the .05 level (2-tailed)

Table 2

## Pre-test ASD Mean Scores on Each Bi-polar Adjective Pair

Adjective Pair	Mean Score Pre-Test	Standard Deviation	Attitude Direction
Progressive-Old fashioned	5.81	.884	Least Favorable
Liberal-Conservative	5.45	1.060	
Flexible-Inflexible	4.74	1.375	
Aggressive-Defensive	4.68	1.006	
Strong-Weak	4.55	1.283	
Busy-Idle	4.54	1.255	
Healthy-Unhealthy	4.46	1.125	
Tolerant-Intolerant	4.46	1.302	
Expectant-Resigned	4.29	1.196	
Active-Passive	4.29	1.254	
Handsome-Ugly	4.25	1.194	
Exciting-Dull	4.18	1.228	
Self-reliant-Dependent	4.17	1.401	
Independent-Dependent	4.14	1.484	
Cooperative-Uncooperative	4.00	1.425	
Optimistic-Pessimistic	3.93	1.330	Most Favorable
Hopeful-Dejected	3.84	1.151	
Productive-Unproductive	3.82	1.230	
Ordinary-Eccentric	3.79	1.391	
Rich-Poor	3.79	1.012	
Decisive-Indecisive	3.66	1.282	
Satisfied-Dissatisfied	3.48	1.186	
Certain-Uncertain	3.46	1.287	
Happy-Sad	3.30	1.099	
Organized-Disorganized	3.29	1.317	
Pleasant-Unpleasant	3.22	1.181	
Secure-Insecure	3.21	1.189	
Trustful-Suspicious	3.02	1.401	
Neat-Untidy	3.01	1.188	
Generous-Selfish	2.88	1.141	
Consistent-Inconsistent	2.81	1.221	
Friendly-Unfriendly	2.77	1.205	

N=200 with exception of Expectant-Resigned and Friendly-Unfriendly which each had N=199

Table 3

## Factor Loadings of the ASD

ASD Item	Factors		
	Personal Acceptability- Unacceptability (PA-U)	Instrumental- Ineffective (I-I)	Openness- Inflexible (O-I)
Pleasant-Unpleasant	.793		
Friendly-Unfriendly	.749		
Neat-Untidy	.720		
Hopeful-Dejected	.669		
Happy-Sad	.665		
Trustful-Suspicious	.645		
Satisfied-Dissatisfied	.639		
Organized-Disorganized	.603		
Generous-Selfish	.553		
Optimistic-Pessimistic	.476		.314
Certain-Uncertain	.469	-.291	
Cooperative-Uncooperative	.424		.414
Expectant-Resigned	.419	-.261	
Exciting-Dull	.360		
Rich-Poor	.357	-.279	
Handsome-Ugly	.314		
Consistent-Inconsistent	.297	-2.55	
Ordinary-Eccentric (all loadings < .25)			
Aggressive-Defensive (all loadings < .25)			
Independent-Dependent		-.837	
Self-reliant-Dependent		-.789	
Productive-Unproductive		-.785	
Busy-Idle		-.698	
Healthy-Unhealthy		-.602	
Strong-Weak		-.579	
Active-Passive		-.578	
Secure-Insecure	.255	-.497	
Decisive-Indecisive	.260	-.379	-.258
Progressive-Old fashioned		-.332	.286
Flexible-Inflexible			.559
Tolerant-Intolerant	.419		.453
Liberal-Conservative			.361

N=200

Note: Factor loadings &lt; .25 are suppressed for ease of viewing

Table 4

Descriptive Statistics, Two-Way ANOVA Message Type and Time of Post-Test

Time	<u>Message Type</u>			<u>Time Means</u>
	Cognitive	Affective	Mixed	
Immediate	x= 1.154	.198	.106	.511
	Std= .666	.495	.553	
Delay-1	x= .762	-.056	.069	.260
Week	Std= .645	.463	.442	
<u>Message Means</u>	.933	.050	.084	

N=200

*Note:* A negative mean indicates that average ASD attitude score changed for the worse pre-test to post-test.

Table 5

Two-way ANOVA Results, Message Type and Time of Post-Test

Source	Sum-of Squares	DF	Mean-Square	<i>F</i> -ratio	P Value
Message	34.16	2	17.08	56.84	.000***
Time of post-test	2.52	1	2.52	8.37	.004**
Message x Time of post-test	1.03	2	.51	1.71	.184
Error	58.29	194	.30		

N=200

\*\* p &lt; .01

\*\*\* p &lt; .001

Table 6

Descriptive Statistics, Two-Way ANOVA Message Type and Involvement

<u>Involvement</u>	<u>Message Type</u>			<u>Involvement Means</u>	
	Cognitive	Affective	Mixed		
Highest	x=	.824	.250	.044	.392
	Std=	.656	.366	.529	
Medium	x=	1.128	-.138	.083	.334
	Std=	.744	.447	.460	
Lowest	x=	.862	.041	.113	.375
	Std=	.635	.561	.509	
<u>Message Means</u>		.933	.050	.084	

N=200

*Note:* A negative mean indicates that average ASD attitude score changed for the worse pre-test to post-test.

Table 7

Two-way ANOVA Results, Message Type and Involvement

Source	Sum-of Squares	DF	Mean-Square	<i>F</i> -ratio	P Value
Message	33.40	2	16.70	53.93	.000***
Involvement	.04	2	.02	.06	.941
Message x Involvement	2.73	4	.68	2.20	.070
Error	59.16	191	.31		

N=200

\*\*\*  $p < .001$

Table 8

Descriptive Statistics, t Test Source

---

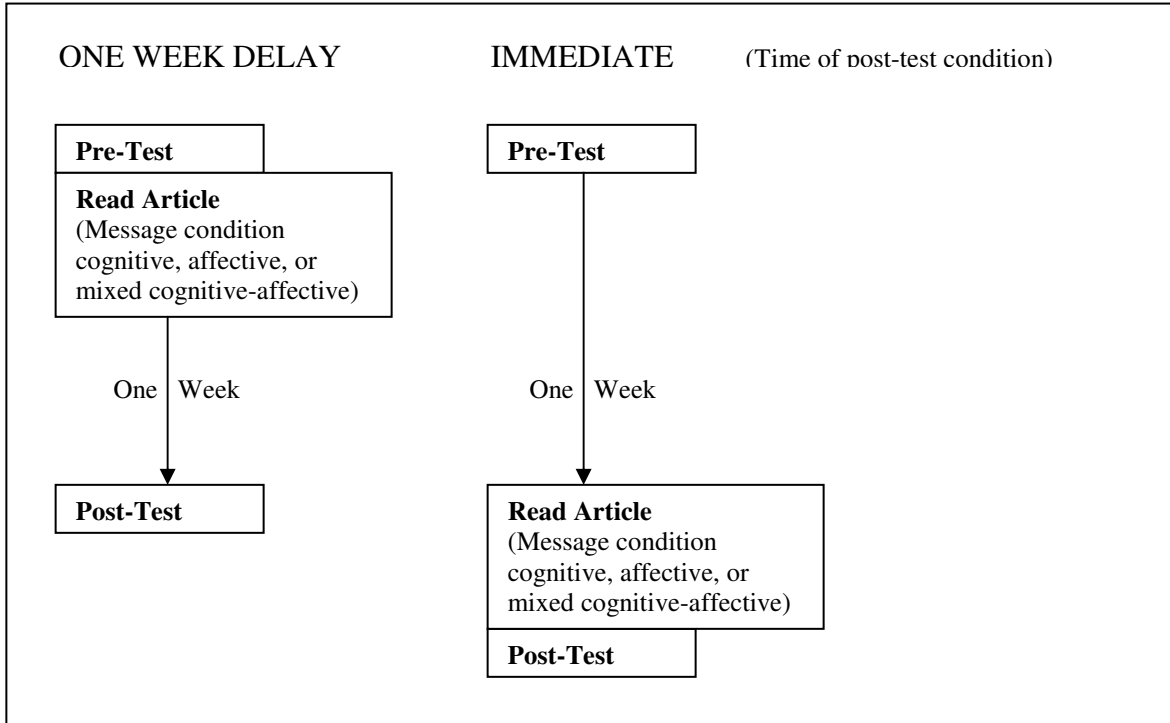
Source	N	Mean	Standard Deviation
Similar	28	.023	.405
Dissimilar	26	.163	.597

---

N=54



Figure 1. 3 (message) x 2 (time of post-test) Experiment 1



## Appendix A:

### Pre- and Post-Test Questionnaires

[Note that some questions that do not pertain to the dissertation but are included for future research use.]

#### Pre-Test

*For all questions, please do not worry about being politically correct. Please answer the questions based on your first feelings. Don't try to answer the questions with what you think the "right" or "correct" answer would be.*

**1. Indicate how frequently you have close personal contact with a person who is over age 65 (do not include attending class with an older professor or having a job where an older person works unless you have a close personal relationship with them):**

#### A relative

Daily \_\_\_\_\_  
Weekly \_\_\_\_\_  
Monthly \_\_\_\_\_  
Less than once per month \_\_\_\_\_

#### Someone who is not a relative

Daily \_\_\_\_\_  
Weekly \_\_\_\_\_  
Monthly \_\_\_\_\_  
Less than once per month \_\_\_\_\_

**2. How would you rate the health of the people over age 65 with whom you have close personal contact?**

Very healthy \_\_\_\_\_ Not at all healthy

*For the next statements, please mark the degree to which you agree or disagree by placing an "x" or a check mark on the scale.*

**3. There should be a mandatory retirement age.**

Strongly agree \_\_\_\_\_ Strongly disagree

**4. If you believe there should be a mandatory retirement age, what do you think the mandatory retirement age should be: \_\_\_\_\_**

**5. People over age 65 usually cannot work as effectively as people under age 65.**

Strongly agree \_\_\_\_\_ Strongly disagree

**6. People over age 65 usually take longer to learn something new than people under age 65.**

Strongly agree    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Strongly disagree

**7. The majority of people over age 65 are seldom bored.**

Strongly agree    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Strongly disagree

**8. It is difficult to think that a person over age 65 could be as happy as a person under age 65.**

Strongly agree    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Strongly disagree

**9. Depression is more frequent among people over age 65 than those younger than 65.**

Strongly agree    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Strongly disagree

[The following section is the Aging Semantic Differential]

*Below are listed a series of opposite adjectives. by a scale. Please place a check mark along the scale at a point which in your judgment best describes people over age 65. Mark each item independently.*

10. Progressive    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Old Fashioned

11. Consistent    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Inconsistent

12. Independent    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Dependent

13. Rich    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Poor

14. Generous    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Selfish

15. Productive    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Unproductive

16. Busy    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Idle

17. Secure    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Insecure

18. Strong    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Weak

19. Healthy    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Unhealthy

20. Active    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Passive

21. Handsome	—	—	—	—	—	—	—	Ugly
22. Cooperative	—	—	—	—	—	—	—	Uncooperative
23. Optimistic	—	—	—	—	—	—	—	Pessimistic
24. Satisfied	—	—	—	—	—	—	—	Dissatisfied
25. Expectant	—	—	—	—	—	—	—	Resigned
26. Flexible	—	—	—	—	—	—	—	Inflexible
27. Hopeful	—	—	—	—	—	—	—	Dejected
28. Organized	—	—	—	—	—	—	—	Disorganized
29. Happy	—	—	—	—	—	—	—	Sad
30. Friendly	—	—	—	—	—	—	—	Unfriendly
31. Neat	—	—	—	—	—	—	—	Untidy
32. Trustful	—	—	—	—	—	—	—	Suspicious
33. Self-Reliant	—	—	—	—	—	—	—	Dependent
34. Liberal	—	—	—	—	—	—	—	Conservative
35. Certain	—	—	—	—	—	—	—	Uncertain
36. Tolerant	—	—	—	—	—	—	—	Intolerant
37. Pleasant	—	—	—	—	—	—	—	Unpleasant
38. Ordinary	—	—	—	—	—	—	—	Eccentric
39. Aggressive	—	—	—	—	—	—	—	Defensive
40. Exciting	—	—	—	—	—	—	—	Dull
41. Decisive	—	—	—	—	—	—	—	Inclusive

**42. How interested are you in topics related to people over age 65?**

Very interested \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ Not at all interested

**43. How interested are you in topics related to people under age 30?**

Very interested \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ Not at all interested

**44. How relevant to you are topics related to people over age 65?**

Very relevant \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ Not at all relevant

**45. How motivated are you to seek information about topics related to people over age 65?**

Very motivated \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ Not at all motivated

**Rate your knowledge about the following concepts:**

**46. Racism**

Not at all knowledgeable \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ Very knowledgeable

**47. Sexism**

Not at all knowledgeable \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ Very knowledgeable

**48. Ageism (discrimination against older people)**

Not at all knowledgeable \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ Very knowledgeable

**What is your:**

**Gender:** \_\_\_ male \_\_\_ female

**Race:** \_\_\_ Caucasian \_\_\_ African-American \_\_\_ Hispanic \_\_\_ Asian \_\_\_ Other

**Major:** \_\_\_\_\_

**Age:** \_\_\_\_\_

## Post-Test

*For all questions, please do not worry about being politically correct. Please answer the questions based on your first feelings. Don't try to answer the questions with what you think the "right" or "correct" answer would be.*

**1. How much did you like the yahoo.com article about people over age 65 that you read [or that you read last week depending on time condition]?**

Very Much \_\_\_\_\_ Not at all

**2. How well-written do you think the yahoo.com article about people over age 65 was that you read [or that you read last week depending on time condition]?**

Very well-written \_\_\_\_\_ Very badly written

*For the next statements, please mark the degree to which you agree or disagree by placing an "x" or a check mark on the scale.*

**3. There should be a mandatory retirement age.**

Strongly agree \_\_\_\_\_ Strongly disagree

**4. If you believe there should be a mandatory retirement age, what do you think the mandatory retirement age should be: \_\_\_\_\_**

**5. People over age 65 usually cannot work as effectively as people under age 65.**

Strongly agree \_\_\_\_\_ Strongly disagree

**6. People over age 65 usually take longer to learn something new than people under age 65.**

Strongly agree \_\_\_\_\_ Strongly disagree

**7. The majority of people over age 65 are seldom bored.**

Strongly agree \_\_\_\_\_ Strongly disagree

**8. It is difficult to think that a person over age 65 could be as happy as a person under age 65.**

Strongly agree \_\_\_\_\_ Strongly disagree

**9. Depression is more frequent among people over age 65 than those younger than 65.**

Strongly agree    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Strongly disagree

[The following section is the Aging Semantic Differential]

*Below are listed a series of opposite adjectives. by a scale. Please place a check mark along the scale at a point which in your judgment best describes people over age 65. Mark each item independently.*

10. Progressive    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Old Fashioned

11. Consistent    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Inconsistent

12. Independent    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Dependent

13. Rich    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Poor

14. Generous    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Selfish

15. Productive    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Unproductive

16. Busy    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Idle

17. Secure    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Insecure

18. Strong    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Weak

19. Healthy    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Unhealthy

20. Active    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Passive

21. Handsome    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Ugly

22. Cooperative    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Uncooperative

23. Optimistic    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Pessimistic

24. Satisfied    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Dissatisfied

25. Expectant    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Resigned

26. Flexible    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Inflexible

27. Hopeful    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Dejected
28. Organized    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Disorganized
29. Happy    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Sad
30. Friendly    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Unfriendly
31. Neat    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Untidy
32. Trustful    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Suspicious
33. Self-Reliant    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Dependent
34. Liberal    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Conservative
35. Certain    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Uncertain
36. Tolerant    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Intolerant
37. Pleasant    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Unpleasant
38. Ordinary    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Eccentric
39. Aggressive    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Defensive
40. Exciting    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Dull
41. Decisive    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Inclusive

**42. How interested are you in topics related to people over age 65?**

Very interested    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Not at all interested

**43. How interested are you in topics related to people under age 30?**

Very interested    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Not at all interested

**44. How relevant to you are topics related to people over age 65?**

Very relevant    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Not at all relevant



**45. How motivated are you to seek information about topics related to people over age 65?**

Very motivated    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Not at all motivated

**Rate your knowledge about the following concepts:**

**46. Racism**

Not at all knowledgeable    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Very knowledgeable

**47. Sexism**

Not at all knowledgeable    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Very knowledgeable

**48. Ageism (discrimination against older people)**

Not at all knowledgeable    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    \_\_\_    Very knowledgeable

## Appendix B:

### Stimulus Materials for Each Message Condition

**MESSAGE TYPE: COGNITIVE** (word count 468; 6 paragraphs)

#### **Adults 65+ Found to Be Happy and Productive**

Some people may think older adults have less reason to be happy and that they are unproductive, particularly if retired. But people over age 65 or older often report being happier than do those who are younger because they don't have the career, financial, or family stresses that they had when younger, according to a recent study conducted by AARP. The study surveyed 2,000 randomly selected people nationwide from ages 20 to 80.

What is the secret to aging happily when being older is so frequently associated with decline and depression? Among respondents in the AARP study, 69 percent of those over age 65 said they were happier now than in their 20s because the experience they have gained allows them to better cope with life's normal stressors. Almost two-thirds of respondents reported that the public should not think of being older as negative.

An AARP spokesman agrees. "The negative stereotypes of older people as unhappy and unproductive are just wrong. One of the goals of AARP is to promote intergenerational understanding of the reality of the aging experience," said Jeffrey Alsop.

Part of the happiness experienced by adults over age 65 and older comes from their productive engagement in activities that are important to them personally and beneficial to society. The AARP study found that almost 80 percent of adults age 66-75 have either taken part-time jobs after retiring from full-time careers or do volunteer work, community service, or mentoring. The study showed that older people are not sedentary at all and are far more useful and productive than younger generations believe them to be.

One activity that 22 percent of older adults report participating in is tutoring. Many of the AARP study respondents tutor elementary-age children and nearly all of them report that it is more rewarding than the work they did during the jobs they held before retiring. Older adults who volunteer are critical to the success of the community support sector—contributing the equivalent of \$2 billion worth of paid work, according to another research study conducted by the Waterlee Group. Their findings indicate that volunteer work performed by adults over age 65 amounts to approximately 161.2 million hours annually.

Alsop hopes that showing the statistical facts about older adults who are happy and productive will help counter the negative stereotypes that prevail. "The research offers evidence that show that these are people who enjoy life and contribute to society. The data indicate that it is a positive stage in life." The bottom line is that contrary to traditional unfavorable views of aging, the reality is that it can be a great time in life. "It is time for all of us to think about these facts to develop better understanding of the actual experience of aging," Alsop said.

**MESSAGE TYPE: AFFECTIVE** (word count 464; 6 paragraphs)

### **Adults 65+ Found to Be Happy and Productive**

Some people may feel older adults have less reason to be happy and that they are unproductive, particularly if retired. John Stafer, a volunteer at the AARP office in Knoxville, Tenn., says, “It is unfair the way many people envision growing older as sinking into depression or uselessness. Being over 65 can actually be better than being younger. I have met so many wonderful older people in my volunteer work who are having the time of their lives.”

What is the secret to aging happily when being older is so frequently associated with decline and depression? Sharon Jones, a 70-year old who feels joyful about life, explains: “I feel even happier in my 70s than I did in my 20s. My lifetime of experiences has helped me learn how to better cope with what life throws at me. Maturity brings acceptance and optimism. Spirit and zest for life don’t diminish with age—for me, it actually has grown stronger.”

An AARP spokesman agrees. “The negative stereotypes of older people as unhappy and unproductive lead to bad feelings about being older. One of the goals of AARP is to promote intergenerational understanding of the reality of the aging experience,” said Jeffrey Alsop.

Part of the happiness experienced by adults over age 65 comes from their productive engagement in activities that are important to them personally and beneficial to society. “Many of my senior citizen friends have gotten fun part-time jobs after retiring from stressful careers, and others gain a real sense of pride and accomplishment by doing volunteer work, community service, or mentoring,” Stafer explained. “Older people are not sitting on rocking chairs doing nothing; they are far more useful and productive than they get credit for.”

Bill Smith is an example. At age 72, Smith spends several hours per week helping tutor elementary school children. “These kids mean a lot to me; what I can give to them means far more to me than what I did in my full-time job. I am thoroughly enjoying myself and I’m helping others.”

Stafer credits his volunteer work with AARP as opening his eyes to the importance of getting the word out about how happy and productive older people are. He hopes that telling the personal stories of older adults who are happy will enhance compassion for older adults among all generations. “When people put negative stereotypes on older adults, they are wrongly judging an entire group of people. It is time for all of us to open our hearts to seeing that growing old can be a great time in life,” Stafer said. “These are people who are truly relishing life and making a real difference in society. It’s a stage in life that should be cherished.”

**MESSAGE TYPE: MIXED COGNITIVE-AFFECTIVE** (word count 463; 6 paragraphs)

### **Adults 65+ Found to Be Happy and Productive**

Some people may think older adults have less reason to be happy and that they are unproductive, particularly if retired. But people over age 65 often report being happier than do those who are younger because they don't have the career, financial, or family stresses that they had when younger, according to a recent study conducted by AARP. The study surveyed 2,000 randomly selected people nationwide from ages 20 to 80.

What is the secret to aging happily when being older is so frequently associated with decline and depression? Sharon Jones, a 70-year old who feels joyful about life, explains: "I feel even happier in my 70s than I did in my 20s. My lifetime of experiences has helped me learn how to better cope with what life throws at me. Spirit and zest for life don't diminish with age—for me, it actually has grown stronger."

An AARP spokesman agrees. "The negative stereotypes of older people as unhappy and unproductive lead to bad feelings about being older. One of the goals of AARP is to promote intergenerational understanding of the reality of the aging experience," said Jeffrey Alsop.

Part of the happiness experienced by adults over age 65 comes from their productive engagement in activities that are important to them personally and beneficial to society. The AARP study found that almost 80 percent of adults age 66-75 have either taken part-time jobs after retiring from full-time careers or do volunteer work, community service, or mentoring. The study showed that older people are not sedentary at all and are far more useful and productive than younger generations believe them to be. Older adults who volunteer are critical to the success of the community support sector—contributing the equivalent of \$2 billion worth of paid work, according to another research study conducted by the Waterlee Group.

Bill Smith is an example. At age 72, Smith spends several hours per week helping tutor elementary school children. "These kids mean a lot to me; what I can give to them means far more to me than what I did in my full-time job. I am thoroughly enjoying myself and I'm helping others."

Alsop hopes that showing the statistical facts about older adults who are happy and productive will help counter the negative stereotypes that prevail. "The research offers evidence that show that these are people who enjoy life and contribute to society. When people put negative stereotypes on older adults, they are wrongly judging an entire group of people. It is time for all of us to open our hearts to seeing that growing old can be a great time in life," Alsop said. "Older people are relishing life and making a real difference in society."

## Appendix C:

### Stimulus Materials for Each Source Condition

**SOURCE SIMILARITY: DISSIMILAR** (word count 462; 6 paragraphs)

#### **Adults 65+ Found to Be Happy and Productive**

Some people may feel older adults have less reason to be happy and that they are unproductive, particularly if retired. John Stafer, a 68-year old who volunteers at the AARP office in Knoxville, Tenn., says, “It is unfair the way many people envision growing older as sinking into depression or uselessness. Being over 65 is actually better than being younger. I feel very happy and have met so many wonderful older people in my volunteer work who are having the time of their lives.”

What is the secret to aging happily when being older is so frequently associated with decline and depression? Stafer mentions his neighbor, Sharon Jones, a 70-year old who feels joyful about life, explaining, “She feels even happier in her 70s than she did in her 20s. Her lifetime of experiences has helped her learn how to better cope with what life throws at her. Spirit and zest for life don’t diminish with age—for her, it actually has grown stronger.”

“The negative stereotypes of older people as unhappy and unproductive lead to bad feelings about being older. One of the goals of AARP is to promote intergenerational understanding of the reality of the aging experience,” said Stafer.

Part of the happiness experienced by adults over age 65 comes from their productive engagement in activities that are important to them personally and beneficial to society. “Many senior citizens have gotten fun part-time jobs after retiring from stressful careers, and others gain a real sense of pride and accomplishment by doing volunteer work, community service, or mentoring,” Stafer explained. “Older people are not sitting on rocking chairs doing nothing; they are far more useful and productive than they get credit for.”

Bill Smith is an example. At age 72, Smith spends several hours per week helping tutor elementary school children. Stafer reports that the kids mean a lot to Smith and that Smith told him that what he gives to the children means far more to him than what he did at his full-time job.

Stafer credits his volunteer work with AARP as opening his eyes to the importance of getting the word out about how happy and productive older people are. He hopes that telling the personal stories of older adults who are happy will enhance compassion for older adults, especially among younger people. “When people put negative stereotypes on older adults, they are wrongly judging an entire group of people. It is time for all of us to open our hearts to seeing that growing old can be a great time in life,” Stafer said. “We are people who are truly relishing life and making a real difference in society. It’s a stage in life that should be cherished.”

**SOURCE SIMILARITY: SIMILAR** (word count 464; 6 paragraphs)

### **Adults 65+ Found to Be Happy and Productive**

Some people may feel older adults have less reason to be happy and that they are unproductive, particularly if retired. John Stafer, a 19-year old college student who volunteers at the AARP office in Knoxville, Tenn., says, “It is unfair the way many people envision growing older as sinking into depression or uselessness. Being over 65 can actually be better than being younger. I feel very happy and have met so many wonderful older people in my volunteer work who are having the time of their lives.”

What is the secret to aging happily when being older is so frequently associated with decline and depression? Stafer mentions his neighbor, Sharon Jones, a 70-year old who feels joyful about life, explaining, “She feels even happier in her 70s than she did in her 20s. Her lifetime of experiences has helped her learn how to better cope with what life throws at her. Spirit and zest for life don’t diminish with age—for her, it actually has grown stronger.”

“The negative stereotypes of older people as unhappy and unproductive lead to bad feelings about being older. One of the goals of AARP is to promote intergenerational understanding of the reality of the aging experience,” said Stafer.

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Bill Smith is an example. At age 72, Smith spends several hours per week helping tutor elementary school children. Stafer reports that the kids mean a lot to Smith and that Smith told him that what he gives to the children means far more to him than what he did at his full-time job.

Stafer credits his volunteer work with AARP as opening his eyes to the importance of getting the word out about how happy and productive older people are. He hopes that telling the personal stories of older adults who are happy will enhance compassion for older adults, especially among younger people like himself. “When people put negative stereotypes on older adults, they are wrongly judging an entire group of people. It is time for all of us to open our hearts to seeing that growing old can be a great time in life,” Stafer said. “Older people are truly relishing life and making a real difference in society. It’s a stage in life that should be cherished.”

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