CATEGORICAL AGE REFLECTORS AND DESCRIPTIVE SENTIMENTS (CARDS)

By

ROBIN VIRGINIA ROW

Bachelor of Science
Auburn University
Auburn, Alabama
1968

Master of Arts
Louisiana Tech University
1976

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(CARDS)

Thesis Approved:

Robert E. Nolan
Thesis Advisor

Gary J. Conti

William R. Kennedy

George E. Bryant

A. Gordon Emslie
Dean of the Graduate College

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CHAPTER I

INTRODUCTION

At the turn of the 20th century only four percent of Americans were over the age of 65. Today that percentage has grown to 12% with actual numbers increasing from 3.1 million in 1900 to 31 million in 1990. By 2025 that number will increase to 62 million with more than 20% of Americans being 65 or over (Longino, 1994, p. 38).

As America continues to age, societal problems are predicted in all venues of the lives of its citizens. Governmental agencies warn of the collapse of the Social Security system and sky-rocketing health care cost. Generation X, those born between 1961 and 1981, is warned of the responsibilities that its members will encounter with simultaneous child care and elder care. Baby Boomers are given the good news that they will live longer, but this is countered with the bad news that they will possibly live many of those years impoverished due to the demise of many private pension plans as well as government assistance they

had expected and paid into for many years (Yntema, p. 24). One means of eliminating some of these problems is to extend the time people are employed in the workforce.

The United States government has helped promote the concept of extending the time of traditional retirement by passing the Age Discrimination Act and increasing the eligibility age for Social Security. The Age Discrimination Act of 1967 initially protected only those individuals between the ages of 40 and 65 affected by discriminatory age employment practices. However, revisions now extend its bounds to cover workers of all ages in all but a few specialized fields. Legislative changes in 1983 initiated a gradual increase in age to collect full retirement benefits through Social Security. Individuals born in 1960 and beyond will need to work until age 67 rather than age 65 to be eligible for full benefits (Bluestone, Montgomery, & Owen, 1990, p. 131).

The combination of Baby Boomer population and extended work years has the potential to change the face of the American workforce. Between 1987 and 1994, the number of full-time employees over the age of 50 increased by four percent. This was in a time when many companies were downsizing and releasing many of their older workers. Without the overall reductions in the workforce, the percentage of workers over 50 would have been even higher.

In 1995, there were 52 million workers between the ages of 45 and 64. By 2010, the number will increase to 79 million an increase of 35% in just 15 years. In 2005, 30% of all workers will be 55 and over. In another 15 years, 40% of all workers will be 55 and over (Hall & Mirvis, 1994, p. 60).

The decision to remain on the job will be influenced by choice and by necessity (Caudron, 1997, p. 44). Choosing to remain in the workforce may be prompted by a need to feel a sense of purpose. Necessity will be an issue because of financial restraints. A 1993 survey noted that 40% of persons age 51-61 expected to have no retirement income except Social Security (Carnevale & Stone, 1994, p. 138).

Business analysts predict that this change in the workforce could create a bottleneck of older workers who could take jobs away from younger workers (Stodghill, 1997, p. 184). Delayed retirement of senior personnel could postpone the upward mobility of the younger worker.

Negative stereotyping of the older employee is an issue that has existed for some time but is now beginning to emerge as one of the primary concerns even in international studies (Harmetz, 1996; Locke-Conner & Walsh, 1980; Scheele, 1994; Vrugt & Schabracq, 1996). Like the United States which is currently on the verge of seeing its Baby Boomers become senior citizens, other countries (especially those involved in World War II) expected to experience an expansion of the

older population in the coming years (Longino, 1994, p. 42).

Corporate culture is shaped at the top by the chief executive officer who determines how human resources are deployed and developed. "If key executives are entrenched in a culture that equates youth with success and deprecates older workers, those beliefs will create a powerfully negative climate toward the older workers, setting standards and values that will guide behavior throughout the organization" (Steinhauser, 1998, p. 88). When 60-year old employees were compared to 30-year old employees, supervisors perceived the younger workers as more productive, efficient, motivated, tolerant of pressure, future-oriented, receptive to new ideas, less resistant to change, and possessing more potential for development (Rosen & Jerdee, 1976). These views have been known for almost 25 years, and Baby Boomers are still very concerned that they will be viewed as less productive, more rigid, and too expensive (Steinhauser, 1998, p. 88). "Negative stereotypes are so pervasive in fact that some Boomers admit to grappling with prejudices about older workers when [they] are making hiring and personnel decisions" (p. 87).

Many employers do not attempt to conceal their prejudices about older workers which promote ageist thinking among younger employees. Even when "policies" are adopted at the highest echelon, the attitudes of the workers do not

automatically change. Mid-management personnel need to be concerned with ageist attitudes to assure that these bias do not become a part of the hiring and termination process (Lyon & Glover, 1998, p.60). Lawrence (1988) suggests it is the beliefs shared by an organization's personnel about what happens to people as they age in a workforce that really produces age norms. These norms then have a direct adverse impact on managerial behavior toward the older worker.

According to Drucker, intergenerational conflict in the workplace will be the next major problem in business. As Baby Boomers stay in the workforce longer, Drucker suggests that "the great divide in the workplace will no longer be between management and labor, but between the young and the old in an age heavy society" (Drucker, cited Amon, 1992. p. 17). The Los Angeles Times posed the following questions: "Can Baby Boomers and twenty something Xers find common ground? Or will intergenerational conflict in the workplace wreak havoc with productivity and career development for decades to come?" (Grove, 1996, D2, p. 4)

With 76 million baby boomers and many of them approaching the older worker status, it is imperative that age bias be a forethought to insure that age discrimination litigation does not become a major problem in business (Steinhauser, 1998, p. 87). Between 1994 and 1998, age discrimination comprised 20% of all discrimination charges

filed with the Equal Employment Opportunity Commission. This 20% was followed by race, sex, and disability suits. If the leaders of companies are looking at the "bottom line", they need to take notice of the judgments awarded in age discrimination cases. The most recent figures show that age discrimination settlements and jury awards are substantially higher than for all other forms of discrimination with an average award of $219,000 compared with $147,799 for race discrimination, $106,728 for sex discrimination, and $100,345 for disability cases (Steinhauser, 1998, p. 6).

Problem Statement

Different degrees of age bias exist in society in a variety of organizations and institutions. The problem is there is not a quick, easy, user-friendly way to identify it.

Age discrimination/ageism issues are going to become more apparent in the workplace as the older worker stays on the job longer. "Perceived economic scarcity is a factor in ageism" (Osgood, 2001, p.176). Efforts need to be made to reduce ageism in the workplace, but first this bias must be recognized as an existing problem. Workshops conducted to address the issue of age bias need some type of mechanism that will reveal attitudes that exist concerning aging and

the older worker.

Palmore (2003) has indicated that people are not apt to answer questions truthfully if they think it will indicate they are expressing ageist attitudes. He suggested that using cards and jokes could be a better way to determine age bias since people seem to express attitudes in this manner openly on a daily basis (Palmore, 2001, p. 573.)

> Just asking people if they discriminate against elders may be as fruitless as asking people if they discriminate against African Americans or women. On the other hand, perhaps some ageism (such as jokes and cards) is so acceptable that many people would admit to it if asked. (Palmore, 2003, p.240).

Purpose of the Study

The purpose of this study was to develop a valid and reliable instrument that can be used to analyze attitudes regarding aging. The researcher's intent was to develop an instrument that could be used as a quick reference to help individuals recognize their own possible age bias - both negative and positive. Previous research has focused on four categories when evaluating the way older adults are stereotyped. These include mental abilities, physical abilities, physical appearances, and personality traits

(Brewer & Lui, 1984; Hummert, Garstka, Shaner, & Strehm, 1994; Hummert, Garstka, Shaner, & Strehm, 1995; Knox, Gekoski, & Johnson, 1995). These categories are also consistent with studies focusing on age attributes depicted in greeting cards and cartoons (Davies, 1977; Demos & Jache, 1981; Dillon & Jones, 1981; Mooney, Brabant, & Moran, 1993; Richman, 1977).

Research Questions

1. What is the pool of items that can be used to produce an instrument to identify age bias?
2. What is the construct validity for an instrument identifying age bias??
3. What is the content validity for an instrument identifying age bias?
4. What is the criteria-related validity for an instrument identifying age bias?
5. What is the reliability for an instrument identifying age bias?

Definition of Key Terms

Ageism: Prejudice and discrimination against a particular age group, especially the elderly (Palmore, 1999).

Categorical Age Reflectors and Descriptive Sentiments (CARDS): A proposed instrument that can be used to determine both positive and negative age bias.

Expected Response: The response chosen by the majority of the panel of expert judges to be accurate or inaccurate on the set of 64 cards.

Facts on Aging Quiz 1 (FAQ1): An instrument to determine knowledge about the aging process. It has also been used to determine both positive and negative age bias.(Palmore, 1999).

Negative age bias: Prejudice against an age group (Palmore, 1999).

Positive age bias: Prejudice favoring an age group (Palmore, 1999).

Social desirability: The tendency of individuals to project favorable images of themselves (Johnson & Fendrich, 2002).

Stereotype: Societal shared beliefs about the characteristics (such as personality traits, expected behaviors, or personal values), that are perceived to be true of social groups and their members (Stangor, 1995).

Significance of the Study

Intergenerational is currently a key word in all aspects of our lifestyle. The pressure to promote this

concept has evolved from various psychological and sociological disciplines, as well as from governmental hierarchy. Leisure and education have been the two primary focal points of the intergenerational process in the past. Included in the next venue will be the workplace. Recent proposals suggesting delays in Medicare eligibility and suggestions of further age increases to become eligible for Social Security indicate that the worker will stay on the job longer.

Organization of the Study

Chapter I of the study includes an introduction to the problem, a statement of the problem, the purpose of the study, the research questions, definition of key terms, the significance of the study, the assumptions, and the limitations.

Chapter II is a review of the related literature that is pertinent to the problem. This chapter is divided into the following headings: defining ageism, ageism in the workplace, the greeting card industry, and disengagement theory.

Chapter III outlines the methodology that was used in the study. Included are research questions, research design, procedures, prototype development, data collection,

participants, construct validity, content validity, concurrent validity, and reliability.

Chapter IV presents the findings of the study relevant to the research questions. Data analysis for questions one through five are reported through discussion and tables. A summary is also included.

Chapter V summarizes the study, presents conclusions, and implications for practice. Suggestions for further research and concluding comments are included.

CHAPTER II

LITERATURE REVIEW

Introduction

Research focusing on aging and the perceptions of aging are addressed in this chapter. The first section presents an overview of adult development and aging, the indices of age, the definition and types of ageism, and the four major constructs of this form of negative stereotyping. The second section examines ageism in the workplace and its consequences. The impact of greeting cards in our society and how they reflect societal views is included in the third part of the review. Theories of aging are reviewed in part four. Studies noting the perceptions of older adults by children, teenagers, college students, and adults are included in the final section.

Adult Development and Aging

The four principles of adult development and aging are, (1) changes are continuous over the life span, (2) the survivors grow old, (3) individual differences must be recognized, and (4) normal aging is different from disease (Whitbourne, 2001, p. 23). Changes in adulthood are built on past experiences producing a continuity for development. Practical implications of the continuity principle relate to the way individuals feel about themselves and the way others feel about them. Adults do not think they become different just because they are getting older. Unfortunately, outward appearances, such as grey hair or wrinkles, play a role in how older adults are perceived and they are treated differently because of their physical appearance. These outward changes are what is often focused on rather than the person's ability.

Indices of Age

Age is more than a numerical assignment for the length of time since birth. In addition to chronological age, there is biological age, functional age, and social age. Chronological age refers to the number of years between birth and the current period and is not relevant to an

understanding of psychological development (Rybash, Roodin, & Hoyer, 1995, p. 13). "As an alternative to chronological age, researchers have suggested indices of age based on specific aspects functioning" (Whitbourne, 2001, p. 8). These include physical (biological) age, psychological age, functional age, and social aging.

Biological age has been defined as "an estimate of the individual's present position with respect to his or her potential life span" (Rybash, Roodin, & Hoyer, 1995, p. 13). It involves measuring the functional capacities of a person's vital organ system where age can be viewed as an index of biological health. An example of biological age could be determined by taking the blood pressure of a person who is 50 and if it is comparable to the norm for someone in their 30's it would indicate a youthful biological age on that measure.

Psychological age represents the "quality of functioning on psychological measures such as intelligence, memory, and learning ability" (Whitbourne, 2001, p. 9). Psychological age characterizes the individual's ability to meet the cognitive demands of the environment. It refers to the adaptive capabilities of an individual (Rybash, Roodin, & Hoyer, 1995, p. 14).

"Functional age is a measure of a person's ability to function effectively within a given environment or society"

(Rybash, Roodin, & Hoyer, 1995, p. 14). An individual who lives alone at 75 or 80 would need to possess physical and psychological skills and abilities to accomplish their daily activities such as cooking, cleaning, and shopping as well as being able to remember important information such as taking medications and paying bills.

"Social age refers to the social roles and expectations that people have for themselves as well as those imposed by other members of society" (Rybash, Roodin, & Hoyer, 1995, p. 14). "Social age takes into account the person's family, work,and possibly community roles" (Whitbourne, 2001, p. 9). Generally, someone who is retired would have an older social age than someone who is still working. There are often times when people will be "off-time" for their social age. An older individual may not give in to the time issue and continually act like a teenager.

Defining Ageism

Ageism is prejudice and discrimination against a particular age group, especially the elderly (Palmore, 1999). Butler was the first to define this concept referring to ageism as "the systematic stereotyping of and against people because they are old. These prejudices and discriminations are really based on the underlying personal

dread we have about growing old" (Butler, 1975, p. 12). "Ageism allows the younger generation to see older people as different from themselves; thus they subtly cease to identify with the elders as human beings" (Butler, 1969, p. 43). Ageism is the, "ultimate prejudice, the last discrimination, the cruelest rejection" (Palmore, 1990, p. 3).

Ageism is one of the three great "isms" of our society and is now recognized along with racism and sexism. There are several types of ageism including general negative attitudes toward elders, age restrictiveness, and age distortion (Palmore, 1990). General negative attitudes note the extent to which growing older is seen as an unpleasant experience. Age restrictiveness encompasses the way older people should or should not act. Age distortion is the way older persons are viewed by others (Palmore, 1990). The worst enemy of aging is not "nature" but people's attitudes (Friedan, 1993, p. 118).

Ageism in the U.S. Culture

Ageism can be viewed from many perspectives in the American culture including family ageism, medical ageism, social ageism, and economic ageism. The devaluation of the aged person that began to emerge at the beginning of the

post-industrial era became particularly acute in twentieth century America (Falk & Falk, 1997, p. 94).

In the family, the principal source of this devaluation has been the change from the extended family to the nuclear family. Prior to the early 1900's staying "down on the farm" with the family was a way of life for many families who depended on agriculture as a means of sustaining their livelihood. The older family members, who owned the land, were held in higher esteem. This has certainly changed as the family farms have all but vanished and the young adults move away to distant areas to earn their own livelihood independent of their family (Falk & Falk, 1997, p. 94).

Medical ageism occurs when medical professionals fail to recognize health problems of older persons. Many times the older individual's complaint is viewed by the practitioner as a part of normal aging and appropriate treatment is delayed or never received (Palmore, 1999, p. 146).

Social ageism reinforces negative concepts about aging. Ageist vocabulary and imagery are evident in much of the pop culture in America. These negative stereotypes are often internalized by the aged who in turn disengage from society and accept this self-fulfilling prophecy and begin behaving in ways that tend to confirm the stereotypes (Falk & Falk, 1997; Palmore, 1999).

When older persons accept these negative stereotypes they position themselves for the ultimate disengagement, death. Levy, Slade, Kunkel, and Kasl (2002) found that longevity increases when people have positive self-perceptions of aging. Individuals who demonstrated positive self perceptions lived 7.5 years longer than those who had a negative perception of aging. AThe effect of more positive self-perceptions on aging on survival is greater than the physiological measure of low systolic blood pressure and desirable cholesterol levels, each which is associated with a longer life span of 4 years@(Friedman et al, 1995). Other independent contributors which prolong life, lower body mass index, no history of smoking, and a tendency to exercise each contribute 1 to 3 years of survival (Fraser & Shavlik, 2001).

Current employment practices regarding the older worker are a form of economic ageism. Many employers continue to discriminate against older workers despite legislation against such discrimination (Palmore, 1999, p. 127). This discrimination is based on the stereotypes of older workers as not being as productive as younger workers, that older workers cannot learn new skills, that it is cheaper to hire younger workers, or that younger workers need the job more than the older workers.

Ageism in the Workplace

In the 18th and 19th century, the perception of the older worker was more positive than it is today. Elders were the skilled craftsmen, the teachers, and the trainers who passed their abilities to future generations. This "pass-it-on-down" attitude afforded elders much more authority in their communities and promoted more respect from the younger generation (Gratton & Harber, 1993, p. 134). However, negative stereotyping of the older person is an issue that began to emerge at the beginning of the post-industrial era when skills were replaced with technology and the brawn of the youth were much more useful than the skills of the older workers (Gratton & Haber , 1993, p. 134). The status of the aged worker in America changed when agriculture ceased to be a major source of employment, as formal education became a more desirable asset than years of experience, and as pension plans together with mandatory retirement took hold in the business arena of our country (Achenbaum, 1978, p. 105).

Older employees and job applicants are often seen as less "promotable and trainable" (Cleveland & Shore, 1992; Rosen & Jerdee, 1976). Personnel decisions based on age stereotyping are very common and many older workers are passed over for promotions based on decisions of supervisors

who do not believe that the performance level of an older worker is as productive as a younger worker. While some tasks that require significant strength to perform may allow the younger worker to out perform the older worker, some research has shown that "when objective productivity indices were used, there was a pattern of increases in performance as age increased" (Falk & Falk, 1997, p. 76).

In the workplace "ageism is not restricted to a small subset of the population, but is widely manifested at both the attitudinal and behavioral level" (Rupp, Vodanovich, Crede, 2004, p.13). Research (Rupp, Vodanovich, Crede, 2004; Cleveland and Shore, 1992) confirms that the consequences for the inability to complete work assignments are much more severe for older workers in comparison to younger workers.

Rupp, Vodanovich, & Crede (2004) had participants review job performances of a hypothetical 31 year old and 65 year old employee where cognitive problems, (difficulties with memory, problem-solving, and attention to detail) and physical demands were encountered. The participants also completed several age attitudinal assessments. The older employee was more often recommended for termination and resignation and the relationship between ageist attitudes and the degree to which recommendations were endorsed was strongest for these two most severe recommendations. Comparatively, the younger worker was recommended for a

transfer or additional training (2004, p. 11).

"Employers continue to view age not in terms of experience and stability, but deterioration and staleness" (Fein, 2001, p.189). A awake-up call needs to go out to business regarding the issue of age prejudice. Steinhauser has outlined some ideas that can help in developing a "precise implementation plan to deal with age bias and discrimination like the pervasive, escalating issues they are" (Steinhauser, 1998,p. 86). They include auditing an organization's culture, rethinking and change attitudes about older adults in the workplace, and conducting joint discussions with other companies, professional organizations, and industry groups. The auditing process should provide information on how employees feel about older workers and how those feelings manifest themselves in the workplace. Steinhauser suggests a survey or focus groups to collect this data. Interviewing executives who have influence on the workplace environment needs to be a part of this process. Rethinking and changing attitudes about older adults in the workplace means that educational programs need to be designed to dispel myths and provide the real facts concerning older workers. Rupp, Vodanovich, Crede (2004) suggest that organizations will benefit from practices and procedures that reduce ageism or minimize the degree to which ageist attitudes are translated into discriminatory

behaviors.

There has been some decline in negative bias toward older individuals although "residual pockets of negativism toward the aged still exist, most occurring subtly, covertly, or even unconsciously" (Butler, 1993, p.76). Bias is demonstrated in sensationalized caricatures, such as those shown on birthday cards, which make for "good copy", but distort reality. Previous research has focused on four categories when evaluating the way older adults are stereotyped. These include mental abilities, physical abilities, physical appearances, and personality traits (Brewer & Lui, 1984; Hummert, Garstka, Shaner, & Strehm, 1994; Hummert, Garstka, Shaner, & Strehm, 1995; Knox, Gekoski, & Johnson, 1995). These categories are also consistent with studies focusing on age attributes depicted in greeting cards (Davies, 1977; Demos & Jache, 1981; Dillon & Jones, 1981; Mooney, Brabant, & Moran; 1993 Richman, 1977).

Greeting Card Industry

Greeting cards are a major industry in America with over 1,500 greeting card publishers competing for the 6.9 billion dollars spent every year on cards. With that type of competition in the market, analyst want to find out what is

going on in people's lives and capitalize on it (Kinosian, 1996, p. 3). Some companies may reject card prototypes because the tone and style may not be right for the company. Another reason prototypes are rejected is because "the idea might be a great gag or joke, but not a personal communication to express a universal feeling" (Gephart, 1992, pp. 25-26). Birthday cards are a "me-to-you" message which convey a personal expression of one's feelings toward another (Goeller, 1962, p. 18).

Many greeting card companies divide their illustrated line into three categories: humorous, clever, and novelty. Humorous cards are "an illustrated greeting card which relies on a joke or gag to put its message across" (Goeller, 1992, p. 84). A clever card relies on a situation for its humor, while a novelty card relies on the unusual to attract the buyer (p. 84).

Greeting card companies have appropriated many dollars to research humor and its effectiveness in buyer appeal. One of the major findings of this research found that humor was often a defensive mechanism. People often laugh at what they fear, especially if there is little they can do about it (p. 85). Americans also seem to prefer "humor with an attitude", and consequently many cards have been introduced which have a sarcastic tone (Futrelle, 1998, p. 1). The once traditional sentiments are now being replaced with more

controversial verses (Kinosian, 1997, p. 3).

Depictions of aging and the elderly are evident in numerous media. "Images of age and aging matter... [because] Americans think generically in terms of images and respond to their subtle cues" (Shenk & Achenbaum, 1993, p. 5). Boorstin suggests that images are pseudo-ideals which are carefully crafted to promote a believable, vivid "construct" (Boorstin, 1977, p. 185). Unfavorable, unattractive imagery of the elderly exist in all forms of media. Descriptive verbiage that depicts a negative connotation runs the gamut from nationally recognized news magazines to greeting cards. Newsweek, reporting on their "wear-and-tear theory of aging", aligns the aging process and elder with the "falling apart...of an old jalopy" (Begley, Hager, & Murr, 1990, p. 44).

Often cards for older adults carry themes of loss of physical and mental abilities, being unattractive, and undesirable personality traits. Even cards that appear to have a more positive bias toward aging can be viewed as less than favorable. For example a card which applauds the success and accomplishments in the life of older persons and the great life they have enjoyed - the impression being that its all over. Now just sit back and enjoy what you've had and accept your losses (King, 1998, A13).

Theories of Aging

Various sociological theories of aging have emerged from five general sociological perspectives: structural functionalism, exchange, symbolic interactionism, Marxism, and social phenomenology (Passuth & Bengtson, 1988, p. 334).Structural functionalism relates to the a Afunctionalist concern for the ways in which societal norms structure the roles available to different groups@ (Passuth & Bengtson, 1988, p.336). The exchange theory applies to rational, economic model of behavior and suggests that individuals engage in interactions that are rewarding to them, but withdraw from those that are costly (p. 340). Symbolic interactionism emphasizes the meaningful purpose of social interaction. Marxism focuses on the Astate and its relation to the economy in a capitalist society to explain the plight of the elderly (p. 344). Social phenomenological theory Aexamines the emergent, situational, and constitutive features of the aging experience@ (p. 345).

Disengagement theory, activity theory, and continuity theory are three prominent theories of aging associated with successful aging. Disengagement theory represents the most explicit application of structural functionalism which argues that "social behavior is best understood from the perspective of the equilibrium needs of the social system.

Disengagement views social behavior in terms of its function within the structure of society" (p. 335). Activity theory represents symbolic interactionism and argues that "one's self-concept is related to the roles one holds" (p. 341). Continuity theory argues that in making adaptive choices middle age and older adults attempt to preserve and maintain existing psychological and social patterns by applying familiar knowledge, skills, and strategies (Atchley, 1989, p.183)

Activity Theory

Activity theorist (Havighurst, Neugarten, & Tobin, 1968) are generally in agreement with disengagement theorist that there is a gradual withdrawal from societal ties as People age and this process. The disagreement between these two theories is the focus of the self-satisfaction as their involvement in society declines. Activity theory rests on the assumption that the aged prefer to resist preoccupation with self and do not psychologically distance themselves from society. The theory states that in order to maintain a positive sense of self, older persons must substitute new roles for those loss due to age. Well-being in late adulthood results from increased activity in newly acquired roles (Passuth & Bengtson, 1988, p. 341).The activity theory

suggests that aside from changes in biology and health, older people have essentially the same psychological and social needs as people in their middle adult years (Neugarten, Havighurst, & Tobin, 1968).

Continuity Theory

Atchley (1980) believes activity theory is idealist, setting up unrealistic expectations that the older person will not be any different at 75 than they are at 45.

The "activity approach" to successful aging holds that to age successfully one must maintain into old age the activity patterns and values typical of middle age. These values stress maintaining a large number of roles and being active in them. To age successfully the individual should avoid shrinkage of the life spaces and find substitute activities when necessary.(Atchley, 1980, p.239).

"It is not the particular level of activity per se that determines one's life satisfaction in later life but, rather, how continuous current activities (lifestyles) are with earlier ones" (Lynott & Lynott, 1996, p. 53).Continuity theory proposes that in making adaptive choices middle-age and older adults attempt to preserve and maintain existing psychological and social patterns by applying familiar skills, knowledge, and strategies (Atchley, 1999).

Continuity theory is evolutionary and presumes that most people learn from life experiences and continue to grow and evolve in directions of their own choosing. Choices are not made to achieve goals, but to adapt to constantly changing circumstances (Atchley, 1989, p. 183).

Disengagement Theory

Cumming and Henry (1961, p. 14), developers of the disengagement theory, describe aging as "an inevitable mutual withdrawal" between the aging person and society. Disengagement assumes individuals decline as they age and uses this assumption as a starting point of the theory. Based on this assumption disengagement theory "focuses on the characteristics of the aged (Levin & Levin, 1980, p.48)

Aging is perceived as "physical, psychological, and social withdrawal from the wider world" (Vander Zander, 1993, p. 569). On the physical level older people slow down their activity level. On the psychological level they focus more on themselves. On the social level there is decreased interaction between the younger members of society and the older generation (Vander Zanden, 1993, p. 569).

"Within the context of disengagement theory, the function of negative stereotypes of aging and the aged is clear. They bring order to the transition from full

engagement in the middle years to disengagement in the later years" (Brano & Williamson, 1982, p. 398). The negative stereotypes do not just occur; they are functional for maintaining the status quo of age relations in modern society where younger people are phased into important social roles, and older people are phased out (p. 399).

According to the disengagement theory when the individual and society are mutually engaged a balance is maintained. The same balance exist when both wish to disengage. The problem occurs when one wishes to engage but the other does not (Levin & Levin, 1980, p. 45). Society encourages disengagement because it gradually transfers the functions previously performed by the older generation to the younger generation (p. 52). The older individual takes it as an obligation to disengage for the benefit of social order and serves as a "phenomenon that functions to soften rivalry between generations" (Cumming & Henry, 1961, p.219). Disengagement is a theory that has been highly debated from its inception and most scholars have refuted it favoring one of the many other alternative theories of aging such as the activity theory or continuity theory.

Cumming and Henry's disengagement theory suggests that the older person takes it as their obligation to disengage for the benefit of the social order of which they are a part. They note that disengagement "can be viewed as a

phenomenon that functions to soften the rivalry between generations" (Cumming & Henry, 1961, p. 219). As the older person withdraws from society in a voluntary manner, the younger generation is able to step in without having to push anyone aside.

Examination of how older persons interact with society and depictions of the elderly reveals that the disengagement theory is substantiated in society and this stereotyping not only affects the young and middle-aged persons' attitude regarding aging, but also "influences the self view and behavior of [the elderly]...thereby reinforcing society's beliefs" (Butler, 1975, p. 13).

Instruments Used to Test Perceptions

Empirical research that focused on attitudes toward aging and the elderly began in the 1950's using various instruments and formats in evaluation how and why stereotyping of the elderly occurs (Branco & Williamson, 1982, p.372). The majority of the past and present research has focused on trait sorting and adjective response on Likert scales. Tuckman and Lorge's Attitudes Toward Old People was developed in 1953 and is considered to be one of the first instruments used for determining attitudes and perceptions about the elderly (McTavish, 1982). This

instrument was a yes/no questionnaire which consisted of 137 items in thirteen categories; conversation, activities and interests, finance, physical, family, personality traits, attitudes toward the future, best time of life, insecurity, mental deterioration, sex, interference, and cleanliness.

Studies (Davidson, Cameron, & Jergovic, 1995; Mitchell, Wilson, Revicki, & Parker, 1985; Seefeldt, Jantz, Galper, & Serock, 1977) involving children's perceptions of older adults indicate that older persons are viewed negatively by young children, even children as young as three. Using Children's Attitudes Toward Elderly (CATE) test, children responded less favorably to older characters in stories when the term elderly was used as a descriptor. Identical characters that were not labeled as elderly were perceived as more likeable (Davidson, et al., 1985).

Kogan's Attitude Toward Old People Scale has been used to evaluate adolescents' attitudes toward the aged (Ivester & King, 1977). Positive perceptions were noted with higher positive scores for 9^{th} and 12^{th} graders from middle class socioeconomic backgrounds compared to lower socioeconomic backgrounds.

Hummert (1990, 1993, 1994, 1995) has conducted extensive research with various age groups regarding perceptions and attitudes about the older population. Many of the instruments developed for Hummert's research focus on

trait sorting using photographs and traits descriptors. One consistent finding is the increase in complexity of perceptions in correlation regarding respondents' age. Older and middle-age adults tend to categorize more subgroups in their sorting of photographs and trait descriptors than did younger adults, thus differentiating more types of older persons (Hummert, Garstka, Shaner, & Strahm, 1994). Brewer and Lui (1984) also noted this increased categorization.

Evaluation of the responses provided by instruments that include visual cues (Hummert, 1994; Mitchell, Wilson, Revicki, & Parker, 1985; Seefeldt, Jantz, Galper, & Serock, 1977) indicate that the old-old (75+) are stereotyped more negatively than the young-old (55-64) or the middle-old (65-74). Women are also viewed more negatively as they progress from the young-old to the old-old category. Responses to the men's imagery remained fairly consistent through this progression (Hummert, 1994, p.15).

The Age Implicit Association Test is a collaborative research effort between researchers at Harvard University, the University of Virginia, and the University of Washington. The IAT requires the ability to distinguish old from young faces. This test often indicates that Americans have automatic preference for young over old.

Knox, Gekoski, and Kelly (1995) contend that attitude and stereotype should be considered as independent variables

when determining how a person is perceived and developed the Age Group Evaluation and Description Inventory (AGED) to differentiate these concepts. They suggest that attitude is evaluative, whereas stereotypes are descriptive. "Terms such as considerate/inconsiderate are evaluative factors, whereas terms such as adventurous/cautious are descriptive" (Knox, Gekoski, & Kelly, 1995, p.33).

Research Models

Greeting cards provide both imagery and evaluative/ descriptive terms and numerous studies have been conducted using greeting cards. Kunz and Woolcott (1976) used Christmas cards to study inter/intra class relationships. Research has been conducted which examined sympathy cards for attitudes toward death (McGee, 1980; Woods & Delisle, 1978). Birthday cards have been used to investigate age references (Demos & Jache, 1981; Dillon & Jones, 1981). Birthday cards have also been used to examine how parents communicate with their children on special occasions (Cacioppo & Anderson, 1981).

CHAPTER III

METHOD

The purpose of this study was to develop a valid and reliable instrument that can be used to analyze attitudes regarding aging. In this chapter, the methods and procedures used to collect and analyze data are described.

Procedures

Data were collected through the use of an initial set of 64 cards developed by the researcher based on the following guidelines:

1. A review of the literature on ageism indicated that previous research has focused on four primary categories when evaluating the way older adults are stereotyped; physical abilities, mental abilities, appearance, and personality traits (Brewer & Lui, 1984; Hummert, Garstka, Shaner, & Strehm, 1994; Hummert, Garstka, Shaner, & Strehm, 1995; Knox, Gekoski, & Johnson, 1995).

2. These categories are also consistent with studies focusing on age attributes depicted in greeting cards and cartoons (Davies, 1977; Demos & Jache, 1981; Dillon & Jones, 1981; Mooney, Brabant, & Moran, 1993; Richman, 1977).

3. Numerous tests that measure attitudes toward aging and older adults address these same four constructs (Palmore's Facts on Aging Quiz 1 and 2, Tuckman and Lorge's Attitudes Toward Old People, Rosencranz and Mcnevin's Attitudes Toward the Aged, Knox, Gekoski, and Kelly's The Age Group Evaluation and Description (AGED) Inventory).

Prototype Development

The researcher attained information regarding ageist depictions in the media by collecting over 100 birthday and greeting cards relating to aging. Approximately 75 jokes were downloaded from internet sites that focus on jokes about age. This information was used to develop the depictions and sentiments on the initial 64 cards. Clipart and Print Artist graphics were used for imagery depicted on the cards. No exact duplication of cards was used to avoid copyright issues.

Cards and jokes were sorted by the researcher into four categories which have been used in previous studies, (1) physical appearance, (2) physical abilities, (3) mental

abilities, and (4) personality traits. Sixteen cards were developed for each of the categories that the researcher believed to be representative of the major constructs. The cards were copied to letter-size paper. The cards were equally sized so that four cards appear on each sheet with the category heading at the top of each page. This initial evaluation tool was 16 pages long with 4 pages of cards per category.

Each card in the four categories was designated by different letters of the alphabet or multiple letters of the alphabet. All cards initially categorized as physical abilities were designated by the letters A - P. All cards initially designated as mental abilities were noted with double letters (AA - PP). Those designated as relating to appearance were noted with triple letters (AAA - PPP) and personality trait cards were designated with four letters (AAAA - PPPP). A rating scale for accuracy was placed at the top of each sheet for referencing purposes. Beside each number was an explanation of what the number represented with 1 = Very Inaccurate, 2 = Somewhat Inaccurate, 3 = No Opinion, 4 = Somewhat Accurate, and 5 = Very Accurate. Beneath each card was a line for the expert judges to place their rating for accuracy of the depiction and sentiment on the card.

Data Collection

Prior to beginning data collection the researcher submitted a proposal describing the purpose of the study to the University's Institutional Review Board for approval (Appendix L, approved July, 2004.) Materials necessary for conducting the study were prepared and includes:

- Informed Consent Form (Appendix A, approved July, 2004)
- Sixty-four item prototype and instruction sheet (Appendix B)
- Cover letter to the panel of expert judges (Appendix C)

Data collection for this study were conducted in several phases. The 64 item CARDS instrument, instruction sheet, and cover letter were mailed to the panel of 5 expert judges. This panel rated each card for accuracy on a 5-point scale with 1 = Very Inaccurate, 2 = Somewhat Inaccurate, 3 = No Opinion, 4 = Somewhat Accurate and 5 = Very Accurate. A copy of this prototype can be found in Appendix A.

The cards were categorized into the four constructs of physical abilities, mental abilities, appearance, and personality traits. The judges were also asked to mark an X through any card that was not appropriate for the category and to make comments about the cards that could be helpful

in developing the final instrument. A self-addressed stamped envelope was included in the packet to use for returning their responses.

Participants

The target population for this study was individuals between the ages of 18 and 50. Due to the nature of the study it was deemed appropriate not to include anyone over the age of 50. All participants were from the state of Oklahoma and ranged in age from 18 to 50.

The data for this study was collected in several phases. In Phase I seven individuals who are professionals in the field of gerontology were contacted through e-mail or personal calls to determine if they would serve as an expert judge for the study. Five of the individuals agreed and a follow-up letter and copy for the initial survey of 64 cards were mailed to them. All of these individuals have doctorate degrees and currently teach at major universities throughout the United States. They have published books or journal articles in the field of aging and continue to be involved in research in gerontology. These individuals served as the panel of judges and reviewed the initial set of 64 cards for categorical construct and accuracy of the card.

Phase II of the research consisted of 100 individuals who responded to a 32 cards subset of the original 64 cards. These individuals were of diverse backgrounds including business executives, truck drivers, retail personnel, teachers, professional medical personnel, direct care aides in nursing homes, and college students. Sixty-eight percent of the respondents were female and 30% were male. Two percent did not indicate their gender. The mean age of the respondents was 34.56 years.

Table I
Demographic Profile Of Respondents
Phase II - Item Analysis
N=100

Age	Females N=68 (68%)	Males N=30 (30%)
18-19	2 (2%)	1 (1%)
20-29	22 (22%)	9 (9%)
30-39	20 (20%)	13 (13%)
40-50	24 (24%)	7 (7%)

* Two respondents did not provide age or gender

Phase III consisted of 203 respondents who field tested the final 20 item Categorical Age Reflectors and Descriptive Sentiments (CARDS) instrument. The majority of these individuals were freshman and sophomore college students, however many of them were non-traditional students who were returning to college later in life. Other respondents included individuals at community events and retail establishments and individuals in the business sector. The

majority of this group were female (60%). Thirty-six percent were male. The mean age of the group was 27 years. Ten participants did not indicate gender or age.

Table II
Demographic Profile of Respondents
Phase Iii - Item Validity Field Test
N=203

Age	Females N=121 (60%)	Males N=72 (36%)
18-19	27 (13%)	16 (8%)
20-29	47 (23%)	42 (21%)
30-39	21 (10%)	19 (5%)
40-50	26 (13%)	3 (1%)

* Ten participants did not enter gender or age

For Phase IV 115 participants responded to the finalized CARDS instrument and Palmore's Fact's on Aging Quiz 1 (FAQ1) to determine concurrent validity of the instrument. Approximately half of these respondents were college or vocational technical students and half were people from the business sector. The majority of this population were females (73%). Twenty-seven percent of the respondents were male. The mean age of this group was 29.46 years.

Table III
Demographic Profile of Respondents
Phase IV-Concurrent Validity
N=115

Age	Females N=84 (73%)	Males N=31 (27%)
18-19	12 (10%)	5 (4%)
20-29	40 (35%)	13(11.5%)
30-39	13 (11.5%)	6 (5%)
40-50	19 (17%)	7 (6%)

For Phase V 30 respondents participated in the test re-test portion of the study to determine reliability of the CARDS instrument. Participants in the phase of the study were non-traditional college students in an evening microbiology class. The mean age of the group was 29.5 years. Only two of the participants were male. Tables I through IV profile the demographics of the groups that participated in each phase.

Table IV
Demographic Profile of Respondents
Phase IV - Reliability
N=30

Age	Females N=28 (93%)	Males N=2 (7%)
18-19	1 (3%)	0
20-29	17 (57%)	2 (7%)
30-39	5 (20%)	0
40-50	4 (13%)	

Validity

Validity is the degree to which a test measures what it intends to measure (Gay, 1996, p. 138). Validity for the CARDS instrument was conducted through construct validity, content validity, and criterion-related validity.

Construct Validity

Construct validity assesses the underlying theory of a test. "It is the extent to which a particular test can be shown to assess the construct that it purports to measure" (Gall, Borg, & Gall, 1996). It shows how well the test links up with a set of theoretical assumptions about an abstract construct (Oppenheim, 1992, p. 162). Constructs are not directly observable. They must be inferred from their observable effects on behavior (Gay, 1996, p.140).

Disengagement theory (Cumming & Henry, 1961) assumes individuals decline as they age and uses this assumption as a starting point for the theory. Aging is perceived as a "physical, psychological, and social withdrawal from the wider world" (Vander Zander, 1993, p. 569). Physical abilities, mental abilities, physical appearance, and personality traits, that align with the Disengagement Theory, are the four constructs the researcher used in CARDS

to determine age bias.

The process the researcher used to establish construct validity for the CARDS instrument consisted of a literature review of ageism and these four constructs. In addition, expert judges who reviewed the cards were asked to determine if the cards the researcher had listed under the four categories were appropriate.

Content Validity

Content validity is the degree to which a test measures a specific content area and requires both item validity and sampling validity (Gay, 1996, p. 139). "Item validity is the degree to which test items represent the measurement in the intended content area" (Gay, 1996, p.620). "Sampling validity refers to the degree to which a test samples the total intended content area" (Gay, 1996, 614). For CARDS, the content validity was concerned with the degree to which the items were representative of age bias based on the four categories of physical abilities, mental abilities, appearance, and personality traits.

The usual process of establishing content validity is to ask qualified judges to make a judgment concerning how well the items represent the content area. The panel of expert judges who assessed the initial constructs in the

instrument were also asked to assess the accuracy of each card by rating it on a scale of 1 to 5 with 1 being very inaccurate and 5 being very accurate. This judgment provided a measure of sampling validity.

Content validity was assessed through item analysis. "An item analysis is a set of procedures for determining the difficulty, validity, and reliability of each item in the test" (Gall, Borg, Gall, 1996). "The purpose for doing an item analysis is to select from a pool of items the ones that most effectively obtain the information you want and eliminate less effective items from your instrument (Henderson, Morris, & Fritz-Gibbon, 1978, p. 87). Item analysis points out items that tend to reduce the scores of those who score high or raise the scores of those who score low (Henderson, Morris, & Fritz-Gibbon, 1978, p. 152).

A tally analysis was implemented as recommended by Henderson, Morris, and Fitz-Gibbon (1978) to determine the items that were good discriminators. Items that provided good discrimination were retained.

The subset of 32 cards that had been selected by the panel of expert judges were copied to letter-size paper in the same type of greeting card format used in the initial review with four cards per page. A rating scale for accuracy was placed at the top of each sheet for referencing purposes. Beside each number was an explanation of what the

number represented ranging from 1= Very Inaccurate to 5 = Very Accurate. This prototype was designated as Test 1. A response key was developed based on the expected responses determined by the panel of expert judges. Test 1 and the response key are included in Appendix D. Test 1 included an informed consent form that the respondents were encouraged to read and take with them. The participants did not sign anything that would divulge their identity. Attached to the informed consent form was the response sheet where the respondents listed their rating. An instruction sheet and seven pages of cards comprised Test 1.

The first respondents utilized in the item analysis were small groups of 5 - 10 persons. Their responses were tallied and reviewed. This process was continued with small groups and individuals in order to assess discrimination and any problems with the items. Thirty-four respondents participated in this first stage of item analysis. Several of the respondents either made comments on the response sheet or stated to the researcher that they were unsure what age group was being referred to with the term "older". They indicated that their response might vary depending on whether older was referring to someone in their 60's or someone in their 80's. The respondents suggested the instructions include a defined chronological age.

This change was made to CARDS instruction sheet. Test 1

with the revised instruction sheet was administered to another 22 participants. The results were tallied and reviewed. To assure that the arrangement of the cards had no effect on the responses the researcher rearranged the cards and administered a second test, designated as Test 2, to 44 participants. A copy of test 2 and a key for the expected responses are found in Appendix E.

The individuals reviewing Test 1 were primarily from the business sector, in both professional (e.g. teachers, managers, medical personnel) and non-professional (e.g. nurse aides, truck drivers, retail clerks) positions. The majority of those reviewing Test 2 were freshman and sophomore college students.

Twenty six notebooks were created in order to allow entire classrooms to review the items quickly. The instrument has a range of scores from 32 to 160. If all items were rated as 1 the score would be 32 and if all items were rated 5 the score would be 160. Scores in the lower range suggests a positive age bias. If the respondent's opinion is that the majority of the depictions on the cards are inaccurate and very few of these scenarios do occur as a person grows older, it is likely the person has a positive age bias. Scores in the higher range suggests a negative age bias. If the respondent's opinion is that the majority of the depictions on the cards are accurate and all these

scenarios do occur as a person grows older, it is likely the person has a negative age bias.

The scoring procedure for the prototype was guided by the item analysis evaluation technique of Henderson, Morris, and Fitz-Gibbon (1978). A score for the prototype was obtained by totalling the ratings given by respondents on all 32 cards. An example of this scoring procedure is included in the Appendix H. The responses were divided into three sections, low scores, middle scores, high scores. After high and low scores were identified a tally sheet was constructed using approximately one-third of the responses from the low scorers and one-third of the responses of the high scorers. The tally sheet was analyzed and the items that provided good discrimination between high and low scores were noted for possible inclusion on the final instrument.

An additional step for item analysis was conducted by determining an index of discrimination for all 32 items. "Once the upper and lower groups have been identified, the index of discrimination is computed as

$$D = P_H - P_L$$

where P_H is the proportion in the upper group who answered the item correctly and P_L is the proportion in the lower group who answered the item correctly" (Crocker & Algina, 1986, p.314). Values of D can range from -1.00 to +1.00.

Ebel (as cited in Crocker & Algina, 1986, p. 315) has offered the following guidelines for interpretation of D-values.

1. If $D \geq .40$ the item is functioning quite satisfactorily.
2. If $.30 \leq D \leq .39$ little or no revision is required.
3. If $.20 \leq D \leq .29$, the item is marginal and needs revision.
4. If $D \leq .19$, the item should be eliminated or completely revised.

D-values were computed for each of the 32 cards in the subset. Cards denoting the highest D-values for each construct were selected for a field test.

Item validity is another form of content validity. "[This] validity is concerned with whether the test items represent measurement in the intended content area" (Gay, 1996, p.139). Item validity was established by assessing whether the participants responded to the items in a meaningful pattern.

Item validity was established by field testing the cards which had significant D-values for the construct. Two hundred and three respondents participated in the field test. The majority of these individuals were freshman and sophomore community college students; however many of them were non-traditional students who were returning to college

later in life. Other respondents included individuals at community events and retail establishments and individuals in the business sector.

The instrument used in the item validity study consisted of 20 cards, five from each of the four major constructs, physical abilities, mental abilities, appearance, and personality traits. The format was the same as in previous reviews of the instrument. Twenty cards were copied onto letter-size sheets and put in plastic protector sheets. An informed consent form, response sheet instruction sheet and the five pages of cards were placed in one-half inch notebook binders. The ratings on all 20 items for each of the 203 participants was recorded and analyzed to determine frequency of ratings on each card and a meaningful pattern of responses.

Criterion-Related Validity

"Criterion-related validity involves an explicit standard against which claims about a test can be judged and includes both predictive and concurrent validity" (Gall, Borg, & Gall, 1996).

"Concurrent validity is the degree to which the scores on a test are related to the scores on another test, already established, test administered at the same time" (Gay, 1996,

p. 141). The steps involved in establishing concurrent validity for CARDS included:

1. Administering the CARDS to a defined group of individuals.
2. Administering a previously established, valid test to the same group at the same time
3. Correlating the two sets of scores
4. Evaluating the results to determine a validity coefficient.

The researcher selected Palmore's Facts on Aging Quiz 1 (see Appendix G) to correlate with the CARDS instrument because it is short and the validity has been documented (Palmore, 1998, p. xi). It has also been used in over 150 other research studies when examining attitudes and knowledge about aging (Palmore, 1998, p. vii).

The final CARDS and FAQ1 instrument was administered to 115 individuals. Cards that were selected as the most valid through construct and content validity analysis were copied and covered with protective sheets. The rating scale was placed at the top of each CARDS page for referencing purposes. An informed consent form, a response sheet, a short description of the two instruments (FAQ1 and CARDS), instructions for CARDS, 5 pages containing the 20 cards and a copy of Palmore's Facts on Aging Quiz 1 (FAQ1) were placed in a notebook. These items are included in Appendix H.

Written permission was obtained from Springer Publishing Company to reprint the FAQ1 and is included in Appendix I.

The FAQ1 and the response sheet for CARDS were stapled together and had the same number placed on the bottom of the page to assure accuracy in correlating the data. This was done a preventive measure in case the two papers became separated.

A net-age bias score for FAQ 1 was determined using the method suggested by Klemmack (1978) where 16 items on the FAQ1 test have been classified as indicating a negative bias if marked incorrectly. These include items 1,3,5,7 to 11, 13, 6, 18, 21, 22, 24, and 25. Conversely, five items have been classified as having a positive bias if they are marked incorrectly. These include items 2, 4, 6, 12, and 14.

Using these twenty-one items, three measures of bias were computed. These are an anti-age bias score, a pro-age bias score, and net bias age score. The anti-age score is the number of negative-bias items marked wrong divided by the number of negative-bias items (16 items). The pro-age score is computed in the same manner. The net-bias age score is then calculated by subtracting the anti-age score (percentage of negative error) from the pro-age bias score (percentage of positive errors).

Palmore's Facts on Aging Quiz 1 is provided with the correct responses noted for each item.

Palmore's Facts on Aging Quiz

* F 1. The majority of old people (age 65+) are senile (have defective memory, are disoriented, or demented).
\+ T 2. The five senses (sight, hearing, taste, touch, and smell) all tend to weaken in old age.
* F 3. The majority of old people have no interest, nor capacity for, sexual relations.
\+ T 4. Lung vital capacity tends to decline in old age.
* F 5. The majority of old people feel miserable most of the time.
\+ T 6. Physical strength tends to decline with age.
* F 7. At least one-tenth of the aged are living in long stay institutions.
^ T 8. Aged drivers have fewer accidents per driver than those under age 65.
* F 9. Older workers usually cannot work as effectively as younger workers.
^ T 10. Over three fourths of the aged are healthy enough to do their own normal activities without help.
* F 11. The majority of old people are unable to adapt to change.
\+ T 12. Old people usually take longer to learn something.
* F 13. Depression is more frequent among the elderly than among younger people.
\+ T 14. Older people tend to react slower than younger people.
_____ 15. In general, old people tend to be very much alike.
^ T 16. The majority of old people say they are seldom bored.
* F 17. The majority of old people are socially isolated.
^ T 18. Older workers have fewer accidents than younger workers.
_____ 19. Over 20% of the population are now age 65 or older.
_____ 20. The majority of medical practitioners tend to give low priority to the aged.
* F 21. The majority of old people have incomes below the poverty line (as defined by the federal government).
^ T 22. The majority of old people are working or would like to have some kind of work to do (including housework and volunteer work).
_____ 23. Old people tend to become more religious as they age.
^ T 24. The majority of old people say they are seldom irritated or angry.
* F 25. The health and economic status of old people will be about the same or worse in the year 2010 (compared with younger people).

* Indicates Negative Bias if marked True
^ Indicates Negative bias if marked False
\+ Indicates Positive bias if marked False

An example of the scoring procedure and calculations for a net bias score is provided. The example indicates that if an individual answered five of the 16 negative bias items incorrectly they would have an anti-age bias of .31 (5 divided by 16) or approximately 31%. If they answered four of the five positive items incorrectly they would have a

pro-bias score of .80 (4 divided by 5) or 80%. The net-bias score would be calculated by subtracting the anti-age score of .31 from the positive bias age score of .80. The net age bias score would be a positive .49 a score significant to show pro-age bias.

Conversely, if they answered 11 of the negative bias items incorrectly they would have an anti-age bias score of .69 (11 divided by 16) or 69%. If they answered only two of the pro-age items correctly they would have a pro-age score of .40 (2 divided by 5) or 40%. The net bias score would be a negative .29 (.40 minus .69). Examples of these two computations are provided on the next pages.

Palmore's Facts on Aging Quiz 1

* T X (N)	1. The majority of old people (age 65+) are senile (have defective memory, are disoriented, or demented).
+ F X (P)	2. The five senses (sight, hearing, taste, touch, and smell) all tend to weaken in old age.
* F	The majority of old people have no interest, nor capacity for, sexual relations.
+ F X (P)	4. Lung capacity tends to declines in old age.
* F	5. The majority of old people feel miserable most of the time.
+ F X (P)	6. Physical strength tends to decline with age.
* F	7. At least one-tenth of the aged are living in long stay institutions.
^ T	8. Aged drivers have fewer accidents per driver than those under age 65.
* T X (N)	9. Older workers usually cannot work as effectively as younger workers.
^ F X (N)	10. Over three-fourths of the aged are healthy enough to do their own normal activites without help.
* T X (N)	11. The majority of old people are unable to adapt to change.
+ T	12. Old people usually take longer to learn something.
* T X (N)	13. Depression is more frequent among the elderly than among young people.
+ F X (P)	14. Older people tend to react slower than younger people.
F	15. In general, old people tend to be very much alike.
^ T	16. The majority of old people say they are seldom bored.
* F	17. The majority of old people are socially isolated.
^ T	18. Older workers have fewer accidents than younger workers.
F	19. Over 20% of the population are now age 65 or older.
T	20. The majority of medical practitioners tend to give low priority to the aged.
* F	21. The majority of old people have incomes below the poverty line (as defined by the federal government).
^ T	22. The majority of old people are working or would like to have some kind of work to do (including housework and volunteer work).
F	23. Old people tend to become more religious as they age.
^ T	24. The majority of old people say they are seldom irritated or angry.
* F	25. The health and economic status of old people will be about the same or worse in the year 2010 (compared with younger people).

* Indicates Negative Bias if marked True
^ Indicates Negative Bias if marked False
+ Indicates Positive Bias if marked False

4 (# of Positive Responses) / 5 (# of Possible Positive Responses	minus	5 (# of Negative Responses) / 16 (# of Possible Negative Responses	=Net Bias
0.80	minus	0.31	= .49

Palmore's Facts on Aging Quiz 1

*T X (N)	1. The majority of old people (age 65+) are senile (have defective memory, are disoriented, or demented).
+F X (P)	2. The five senses (sight, hearing, taste, touch, and smell) all tend to weaken in old age.
*T X (N)	3. The majority of old people have no interest, nor capacity for, sexual relations.
+T	4. Lung capacity tends to declines in old age.
*F	5. The majority of old people feel miserable most of the time.
+T	6. Physical strength tends to decline with age.
*T X (N)	7. At least one-tenth of the aged are living in long stay institutions.
^T	8. Aged drivers have fewer accidents per driver than those under age 65.
*T X (N)	9. Older workers usually cannot work as effectively as younger workers.
^F X (N)	10. Over three-fourths of the aged are healthy enough to do their own normal activites without help.
*T X (N)	11. The majority of old people are unable to adapt to change.
+T	12. Old people usually take longer to learn something.
*T X (N)	13. Depression is more frequent among the elderly than among young people.
+F X (P)	14. Older people tend to react slower than younger people.
F	15. In general, old people tend to be very much alike.
^T	16. The majority of old people say they are seldom bored.
*T X (N)	17. The majority of old people are socially isolated.
^F X (N)	18. Older workers have fewer accidents than younger workers.
F	19. Over 20% of the population are now age 65 or older.
T	20. The majority of medical practitioners tend to give low priority to the aged.
*T X (N)	21. The majority of old people have incomes below the poverty line (as defined by the federal government).
^T	22. The majority of old people are working or would like to have some kind of work to do (including housework and volunteer work).
F	23. Old people tend to become more religious as they age.
^T	24. The majority of old people say they are seldom irritated or angry.
*T X (N)	25. The health and economic status of old people will be about the same or worse in the year 2010 (compared with younger people).

* Indicates Negative Bias if marked True
^ Indicates Negative Bias if marked False
+ Indicates Positive Bias if marked False

$$\frac{\text{2 (\# of Positive Responses)}}{\text{5 (\# of Possible Positive Responses)}} \text{ minus } \frac{\text{11 (\# of Negative Responses)}}{\text{16 (\# of Possible Negative Responses)}} = \text{Net Bias}$$

0.40 minus 0.69 = -.29

The scores for the CARDS were calculated in the same manner. A net-age bias score for CARDS was determined using

the same method. The final 20 item instrument consisted of items that were designated as indicating a negative bias if answered differently from the expected response. These included items B, G, H, I, K, L, O, R, and T. The expected response was determined by the panel of expert judges who had rated the cards for accuracy on a 1 to 5 scale. Conversely, eleven items were designated as having a positive bias if answered different from the expected response. These include items A, C, D, E, F, J, M, N, P, Q, and S. An illustration of this is provided below.

Card	Rating	Card	Rating	Card	Rating
ZA	= 4 or 5	☐ H	= 1 or 2	☐ O	= 1 or 2
☐ B	= 1 or 2	☐ I	= 1 or 2	ZP	= 4 o5 5
C	= 4 or 5	ZJ	= 4 or 5	ZQ	= 4 or 5
ZD	= 4 or 5	☐ K	= 1 or 2	☐ R	= 1 or 2
ZE	= 4 or 5	☐ L	= 1 or 2	ZS	= 4 or 5
ZF	= 4 or 5	ZM	= 4 or 5	☐ T	= 1 or 2
☐ G	= 1 or 2	ZN	= 4 or 5		

Indicates Negative bias if marked 4 or 5 (Possibility of 9 negative items)
Z Indicates Positive bias if marked 1 or 2 (Possibility of 11 positive items)

Positive age bias		Negative age bias
Number of responses incorrectly marked positive Negative	minus	Number of incorrectly marked
11 Number of positive items	= Net Age Bias	9 Number of negative items

For the CARDS instrument the anti-age score is the number of negative-bias items that were not answered with

the expected response divided by the number of negative-bias items on the CARDS instrument (9 items). The pro-age score is computed in the same manner. The pro-age score is the number of positive-bias items given by a respondent that are not answered with the expected response divided by the number of positive-bias items on the CARDS instrument. The net-bias age score is then calculated by subtracting the anti-age score (percentage of negative error) from the pro-age bias score (percentage of positive errors).

For example, if 6 of the 9 negative bias items were answered different from the expected response the result would be an anti-age bias of .67 (6 divided by 9) or approximately 67%. If 1 of the 11 positive items were answered different from the expected response the result would be a pro-bias score of .09 (1 divided by 11) or 9%. The pro-bias score .09 minus the negative bias score .67 provides the net bias score. The net-bias score would be -.58, a negative bias. An example of this computation is illustrated on the following page.

Computation of age bias for CARDS

Card	Rating	Card	Rating
A =	4	N =	2 X (Positive Bias)
B =	4 X (Negative bias)	O =	4 X (Negative Bias)
C =	4	P =	4
D =	5	Q =	5
E =	4	R =	4 X (Negative Bias)
F =	4	X =	4
G =	2	T =	4 X (Negative Bias)
H =	2		
I =	4 X (Negative Bias)		
J =	4		
K =	2		
L =	4 X (Negative Bias)		
M =	4		

Scoring procedure

1 (# of Positive Responses) Minus 6 (# of Negative Responses) = Net Age Bias
11 (# of Possible Positive Responses) 9 (# of Possible Negative Responses)

$$\frac{1}{11} - \frac{6}{9} =$$

.09 - .67 = - .58 (Net age bias)

The respondents' score on the FAQ1 and CARDS instrument were correlated using a Pearson r. The resulting correlation provided a validity coefficient that indicated the

concurrent validity of the CARDS test.

An explanation sheet informing the respondents they would be reviewing two instruments was included as the first page for this review. In addition, the respondents were asked to give consideration to the options of No Opinion and Don't Know on the reviews. In reviewing the instructions orally with the class, the researcher assured the participants they could use these options if that was their best response for the question. This information was emphasized in this phase of data collection because on previous response sheets some of the participants had used the No Opinion as many as 19 times for the 32 item prototype and as many as 18 times on the 20 item instrument.

Reliability

Reliability is the degree to which a test consistently measures whatever it measures and is expressed numerically, usually as a coefficient (Gay, 1996, p. 145). A high coefficient indicates high reliability. There are two types of reliability, stability reliability and internal reliability (Gall, Borg, & Gall, 1996, p. 256). The researcher established stability reliability through test-retest, which shows the degree to which scores are consistent over time.

Two factors are important in the test-retest: the amount of time that should lapse between tests and the effect of acquiring new information that might change a person's response (Gall, Borg, Gall, 1996, p. 256). Gay (1996) suggested a two-week interval between test however other textbooks do not specific a definite interval, but note that a week may be little time and a month too much (p. 256).

The final CARDS instrument was administered to a group of 33 college students in a classroom setting. The group was administered the test two weeks later. Identifier numbers on the response sheets were used for the test re-test procedure. Scores were correlated with a Pearson *r* to determine a coefficient of stability.

CHAPTER IV

RESULTS

The purpose of this study was to develop a valid and reliable instrument that can be used to analyze attitudes regarding aging. The researcher's intent was to develop an instrument that could be used as a quick reference to help individuals recognize their own possible age bias - both negative and positive. The research questions were:

1. What is the pool of items that can be used to produce an instrument to identify age bias?
2. What is the construct validity for an instrument identifying age bias?
3. What is the content validity for an instrument identifying age bias?
4. What is the criteria-related validity for an instrument identifying age bias?
5. What is the reliability for an instrument identifying age bias?

Data Analysis

Analysis procedures used in instrument development were utilized in this research study. These included validation of construct validity, content validity, criterion-related validity, and reliability (Henderson, Morris, & Fitz-Gibbon, 1978; Crocker & Algina, 1982; Oppenheim, 1992; Gall, Borg, & Gall, 1996; Gay, 1996). Statistical procedures were conducted using SPSS Graduate Pack (2003).

Question 1

What is the pool of items that can be used to produce an instrument to identify age bias?

A review of the literature indicated that aging is viewed from four major constructs, physical abilities, mental abilities, appearance, and personality traits (Brewer & Lui, 1984; Hummert, Garstka, Shaner, & Strehm, 1994; Hummert, Garstka, Shaner, & Strehm, 1995; Knox, Gekoski, & Johnson, 1995). A review of the literature further indicated the four constructs that most often are associated with stereotyping of the older person are also consistent with studies focusing on age attributes depicted in greeting cards and cartoons (Davies, 1977; Demos & Jache, 1981; Dillon & Jones, 1981; Mooney, Brabant, & Moran, 1993;

Richman, 1977). A recent survey of persons over 60 has indicated that the most frequent type of ageism reported by 58% of respondents was, "I was told a joke that pokes fun at old people" or they had received a birthday cards at getting older (Palmore, 2001, p.573).

Cards that depicted jokes about the aging process and older adults were used in the development of the CARDS instrument. The depictions and sentiments displayed on the first set of 64 cards was the result of the researcher's review of over 100 greeting cards that contained joking sentiments about aging and a review of approximately 75 jokes from internet sites that have a repertoire of jokes about older adults.

The prototype developed by the researcher included 16 cards for each construct the researcher believed to be appropriate for the category. The cards depictions and sentiments were comprised of jokes and cartoons.

Validity

Validity is the degree to which a test measures what it intends to measure (Gay, 1996, p.138). Validity for this instrument was conducted through construct validity, content validity, and concurrent validity.

Question 2

What is the construct validity for an instrument identifying age bias?

Construct validity assesses the underlying theory of a test. "It is the extent to which a particular test can be shown to assess the construct that it purports to measure" (Gall, Borg, & Gall, 1996). It shows how well the test links up with a set of theoretical assumptions about an abstract construct (Oppenheim, 1992, p. 162).

The process the researcher used to establish construct validity for the CARDS instrument consisted of a literature review of ageism and the four constructs most often associated with ageism , physical abilities, mental abilities, appearance, and personality traits. In addition, expert judges who reviewed the cards were asked to determine if the cards the researcher listed under the four categories were appropriate. The first set of 64 cards was reviewed by the panel of expert judges. The judges rated the cards for accuracy on a scale from 1 to 5 with 1 being very inaccurate and 5 being very accurate. The judges also evaluated the cards to determine if the card was appropriate for the construct.

The results of the judge's ratings noted that a majority, at least 3 of the 5 judges, were in agreement on

the accuracy or inaccuracy for 32 of the 64 cards. Four cards (DDDD, FFFF, JJJJ, OOOO) were noted by 3 of the 5 judges to be inappropriate for the designated construct of personality traits. Card FFFF was noted by three of the judges to be inappropriate for personality traits but appropriate for physical abilities. When developing the subset of 32 cards item FFFF was placed in the physical abilities category.

Although card N was rated with a similar rating by three of the judges, the card required reverse order scoring. Card N was the only item that required a reversal scoring and was eliminated to provide ease with computation. Henderson, Morris, and Fitz-Gibbon (1978) suggest that if an item has a scoring pattern in the reverse direction of the overall questionnaire it should be discarded.

Tables V through VIII indicate the responses from the panel of expert judges. Each table is designated by the construct it purports to measure. Comments noted by the judges are included in each table.

Table V
Expert Judges' Responses
Physical Abilities
N=5

Card	Rating	Rating	Rating	Rating	Rating	Total	Comments
A	5	1	5	5	2	18	
B	4	1	4	3	1	13	
C	5	3	3	4	1	16	
D	4	o X	3	+ 3	2	12	o Hard to figure out + Unclear
E	3	2	3	3	1	12	
F	2	1	4	5	2	14	
G	4	1	3	4	2	14	
H	4	o X	2	5	1	12	o Unclear
I	2	4	4	5	4	19	
J	4	o X	3	5	X	12	o More about bottles
K	2	1	4	3	4	14	
L	4	1	4	2	2	13	
M	4	1	2	3	X	10	
N	4	4	2	5	X	15	
O	2	1	4	5	4	16	
P	2	1	4	2	1	10	
* FFFF	4	o 1	^ 4	4	# X	13	o Physical ^ physical # Physical

*FFFF was judged by 3 of the five to be a better fit for physical abilities rather than personality traits

Table VI
Expert Judges' Responses
Mental Abilities
N=5

Card	Rating	Rating	Rating	Rating	Rating	Total	Comments
AA	4	o X	4	2	4	14	o More Physical
BB	5	1	4	2	2	14	
CC	4	1	4	4	2	15	
DD	4	1	4	1	1	11	
EE	5	1	4	2	1	13	
FF	o 4	1	+ 3	1	1	10	o Need Different image at top + Inconsistent
GG	4	X	4	4	X	12	
H H	5	1	4	4	1	15	
I I	4	1	4	4	2	15	
JJ	4	3	# 4	5	X	16	# Smart is not the same as Wisdom
KK	4	1	4	3	1	13	
LL	1	1	3	2	1	8	
MM	1	1	3	2	1	8	
NN	4	2	4	2	1	13	
OO	1	1	3	2	1	8	
PP	4	1	4	2	1	12	

Table VII
Expert Judges' Responses
Appearance
N=5

Card	Rating	Rating	Rating	Rating	Rating	Total	Comments
AAA	5	2	4	5	4	20	
BBB	5	2	4	5	4	20	
CCC	* X	1	2	4	# X	7	* Physical Abilities # Not about appearance
DDD	* X	1	4	5	# X	10	* Physical Abilities # Not about appearance
EEE	X	1	4	2	X	7	
FFF	4	1	5	4	4	18	
GGG	4	o X	3	4	4	15	o Not focused on age
HHH	4	o X	2	4	4	14	o Not about age
III	5	3	2	4	3	17	
JJJ	5	1	4	4	4	18	
KKK	4	1	4	2	1	12	
LLL	4	1	4	5	1	15	
MMM	4	1	^ 2	5	4	16	^ Size - overweight nothing to do with age
NNN	4	1	2	4	X	11	
OOO	5	3	4	5	4	21	
PPP	2	1	4	4	2	13	

Table VIII
Expert Judges' Responses
Personality Traits
N=5

Card	Rating	Rating	Rating	Rating	Rating	Total	Comments
AAAA	2	* X	o 2	3	+ X	7	# *More physical +what age? o & # Not personality
BBBB	4	3	2	3	# X	12	# Not personality
CCCC	* 1	1	4	1	# X(1)	8	# Not personality
DDDD	* 1	o X	3	1	# X	5	* Mix of appearance, personality, economics o & # Not personality
EEEE	4	o 1	4	4	# X	13	o Physical # Not personality
*FFFF	4	o 1	^ 4	4	# X	13	o Physical ^ Physical # Not personality/physical
GGGG	1	1	4	1	1	8	
HHHH	4	o X	2	2	# X	8	o Not personality # Not personality
IIII	1	X	^	2	# X	3	^ Not personality # Not personality
JJJJ	* 4	X	^	4	# X	8	* More physical ^ & # Not personality
KKKK	1	1	4	2	1	9	
LLLL	4	o X	2	2	# X	8	o Not personality # Not personality
MMMM	* 4	1	5	4	2	16	* More mental
NNNN	4	X	3	2	# X	9	# Not personality
OOOO	* 1	X	^	+ 2	# X	3	*More mental ^Physical +Teens have high rates too # Not personality
PPPP	* 4	X	4	4	# X	12	# Not personality

* FFFF was judged to be more physical by 3 of the experts and moved to that category

Question 3

What is the content validity for an instrument identifying age bias?

Content validity is the degree to which a test measures a specific content area and requires both item validity and sampling validity (Gay, 1996, p.139). "Item validity is the degree to which test items represent the measurement in the intended content area" (Gay, 1996, p.620). "Sampling validity refers to the degree to which a test samples the total intended content area" (Gay, 1996, 614). For CARDS, the content validity was concerned with the degree to which the items were representative of age bias based on the four categories of physical abilities, mental abilities, appearance, and personality traits.

Content validity is determined by expert judgment. The panel of expert judges who assessed the initial constructs in the instrument was also asked to assess the accuracy of each card by rating it on a scale of 1 to 5 with 1 being very inaccurate and 5 being very accurate. This judgment provided a measure of sampling validity.

Content validity was established by conducting an item analysis. "The purpose of doing an item analysis is to select from a pool of items the ones that most effectively obtain the information you want and to eliminate the less

efficient items from your instrument", (Henderson, Morris, and Fitz-Gibbon, 1978, p.87).

The steps for item analysis involve accumulating a sample of items about the attitude that is being measured, conducting a pilot study that consists of people who are similar to the people whose attitudes you want to measure and are likely to express the whole range of attitudes you want the instrument to detect. Responses can be assigned a score from 1 to 5. A score can be obtained for the participant by totaling the points corresponding to his or her responses. The high and low scorers should be identified and each response for these groups should be tallied. The scores are then analyzed to determine items that show good discrimination.

One hundred participants reviewed the 32 cards from the prototype (Test 1) for item analysis. The responses were scored by adding the responses which ranged from 1 to 5 for each card. A total for each respondent was calculated. The scores could range from 32 (scoring all items with a 1) to 160 (scoring all items with a 5). The scores from this data ranged from 33 to 153. An example of this procedure was noted earlier in Appendix F.

The data was analyzed and divided into 3 categories. Respondents with the low scores were considered to have a positive age bias. In their opinion the majority of

depictions on the cards were inaccurate which would suggest that they did not view aging as having any negative effects on physical or mental abilities, appearance or personality traits. Respondents with high scores were considered to have a negative age bias. In their opinion the majority of the depictions on the cards were accurate which would suggest they viewed aging as having very negative effects on physical and mental abilities, appearance and personality traits. Those with scores in the middle range would have a neutral bias.

The responses were divided into three groups based on their scores as shown by Table IX. The groups were divided into approximate thirds. Some of the participants had the same score at a division point for equal thirds therefore the groups could not be equally divided. For example, three scores of 92 are on the division point for the low scores. All three were included which placed 35 in the category of low scores. Thirty-six scores were designated as high scores to maintain as much equality as possible in the two categories that were analyzed. Scores in the middle range were not used because they were not considered to provide good discrimination of the cards.

Table IX
Item Analysis
N=100

Low Scores N=35		Middle Scores N=29		High Scores N=36	
33	82	93	100	109	125
35	82	93	100	109	126
42	82	94	100	111	127
44	83	94	100	111	128
46	84	94	100	113	129
48	84	95	101	113	129
71	84	95	101	113	129
73	86	95	103	114	130
76	86	96	103	115	134
77	87	96	103	116	136
77	88	96	103	116	136
78	89	97	105	118	136
78	89	98	107	119	138
78	91	99	107	121	141
79	91	99		121	149
80	92			122	150
80	92			122	151
80				124	153

The individual ratings for each card, ranging from 1 to 5, from participants with low scores and the ratings for each card from participants with high scores were tallied in order to conduct item analysis on this data. These tallies are shown in Table X. Letters in parentheses were the card designations on the initial set of 64 cards and were included for reference purposes.

TABLE X
ITEM ANALYSIS TALLY
N=71

	LOW SCORES POSITIVE BIAS N=35					HIGH SCORES NEGITIVE BIAS N=36				
Card	Very Inaccurate	Inaccurate	No Opinion	Somewhat Accurate	Very Accurate	Very Inaccurate	Inaccurate	No Opinion	Somewhat Accurate	Very Accurate
A(A)PhyAb	11	6	6	13		1	5		12	8
B(HH) MA	12	12	3	8		1	4	3	10	9
C(BBB)App	11	6	5	13		2	3	3	8	10
D(MM) MA	13	13	1	6	2		5	4	13	9
E(AAA) App	4	12	4	14	1	1	4	1	8	12
F (JJJ) App	5	14	6	5	3	2	1	5	10	8
G(CCCC)Tra	13	14		3		1	8	3	6	7
H(P) PhyAb	12	11	4	6	1	1	7	4	11	8
I (I) PhyAb	7	12	7	7	2		2	4	11	14
J(FFF)PhyAb	6	9	2	12	4	1	2	2	8	13
K (O) PhyAb	5	4	7	11	2		1	6	13	9
L (FFF)App	7	9	3	11	3		4	9	11	7
M(MMM)App	11	7	2	9	6	1	2	1	11	11
N(MMMM)Tra	6	6	3	14	4	1	1	8	7	9
O(KKKK) Tra	14	12	2	2		3	6	8	9	5
P(EEEE)Tra	10	14	1	8	2	1	4	4	14	8

TABLE X
ITEM ANALYSIS TALLY
N=71

	LOW SCORES POSITIVE BIAS N=35					HIGH SCORES NEGITIVE BIAS N=36				
Card	Very Inaccurate	Inaccurate	No Opinion	Somewhat Accurate	Very Accurate	Very Inaccurate	Inaccurate	No Opinion	Somewhat Accurate	Very Accurate
Q(OOO)App	9	7	7	7	2		5	5	13	6
R(GGGG) Tra	9	8	4	3	1	2	4	7	9	5
S (CC) MA	9	12	2	7		3	3	4	12	9
T (FF) MA	8	8	3	2			7	6	7	8
U (OO) MA	8	8	3	2		2	8	3	8	5
V (DD)MA	9	8	2	1		1	6	5	8	4
W(PPP) App	5	7	7	9	3		1	4	9	6
X (AA) MA	6	8	2	7	1		3	2	9	7
Y (F) PhyAb	8	8	5	8	1		2	5	8	6
Z (KKK) App	8	8	4	3	1		3	7	7	9
AA(PPPP)Tra	8	9	7	9	2		6	5	7	8
BB (LLL)App	9	8	6	7	1	1	3	4	8	5
CC(LL) MA	6	8	3	4			5	3	7	6
DD (HHH) App	7	7	6	5			1	9	8	8
EE(II) MA	8	8	2	6			6	5	7	8
FF (EE) MA	10	12	3	4	1	1	4	3	7	6

Cards with a rating of 1 (very inaccurate) and 2 (somewhat inaccurate) were considered as a single score for inaccuracy. Cards with a 5 (very accurate) and 4 (somewhat accurate) were considered as a single score for accuracy. The tally analysis indicated that responses to the sentiments and depictions on the cards did distinguish 22 cards to have good discrimination. Good discrimination was based on more than half of the respondents in the low and high groups designating the card as accurate and more than half designating it as inaccurate. The cards that indicated good discrimination on the 32 item subset included cards B, D, F, G, H, I, M, O, P, Q, R, S, T, U, V, X, Y, Z, CC, DD, EE, and FF.

In addition, the researcher computed an index of discrimination for each of the 32 cards. The responses of 1 and 2 were viewed as a single score for inaccuracy and 4 and 5 were viewed as a single score for accuracy. The formula for computing the index of discrimination is:

$$D = P_H - P_L$$

"where P_H is the proportion in the upper group who answered the item correctly and P_L is the proportion in the lower group who answered the item correctly" (Crocker & Algina, 1986, p.314).

An example of this computation for card A is shown below.

Computation for Index of Discrimination

$$D = P_H - P_L$$

$$D = \frac{30(\text{\# of correct responses in upper group})}{36(\text{\# of possible responses in upper group})} \quad .84$$

Minus —

$$\frac{13\ (\text{\# of correct responses in lower group})}{35\ (\text{\# of possible responses in lower group})} \quad .38$$

$$D = .46$$

The index of discrimination for Card A would be .46.

Values of D can range from -1.00 to +1.00. Table XI provides the D value for each card in the set of 32 cards. The results for D are listed by categorical constructs.

Twenty six of the 32 cards had scores at .40 or above for the computed index of discrimination. Ebel (as cited Crocker & Algina, 1986, p. 315) has offered the following guidelines for interpretation of D-values.

1. If $D \geq .40$ the item is functioning quite satisfactorily.
2. If $.30 \leq D \leq .39$ little or no revision is required.
3. If $.20 \leq d \leq .29$, the item is marginal and needs revision.
4. If $D \leq .19$, the item should be eliminated or completely revised.

Table XI
Index of Discrimination
N=71

Card	Construct	D-Value
A	Physical Abilities	.46
H	Physical Abilities	.49
I	Physical Abilities	.58
J	Physical Abilities	.44
K	Physical Abilities	.29
Y	Physical Abilities	.54
B	Mental Abilities	.58
D	Mental Abilities	.63
S	Mental Abilities	.53
T	Mental Abilities	.66
V	Mental Abilities	.72
X	Mental Abilities	.64
CC	Mental Abilities	.59
EE	Mental Abilities	.52
FF	Mental Abilities	.64
U	Mental Abilities	.52
C	Appearance	.40
E	Appearance	.31
F	Appearance	.40
L	Appearance	.19
M	Appearance	.46
Q	Appearance	.48
W	Appearance	.32
Z	Appearance	.64
BB	Appearance	.41
DD	Appearance	.44
G	Personality Traits	.51
N	Personality Traits	.15
O	Personality Traits	.64
P	Personality Traits	.60
R	Personality Traits	.61
AA	Personality Traits	.38

The set of 32 cards consisted of six cards from physical abilities, ten from mental abilities, ten from appearance and six from personality traits. In reviewing the analyses 5 of the 6 cards categorized as physical abilities have D-values exceeding 40. All ten of the cards categorized as mental abilities have D-values exceeding .40. Seven of the 10 categorized as appearance have a D-value exceeding.40. Four of the six cards categorized as personality traits have D-values exceeding .40

The cards identified by the computed index of discrimination as good discriminators were similar to the tallied set of 22 cards showing good discrimination. The exceptions were:

(1) Card A was not designated by the tally procedure, but had a D-value of .46.

(2) Card J was not designated by the tally procedure, but had a D-value of .44.

Twenty-two cards were indicated in both processes as being good discriminators. Twenty cards were selected for the CARDS instrument in order to maintain an equal number of cards for each construct for the instrument. For physical abilities three cards were noted in both processes as good discriminators. These included cards H, I, and Y. The other two cards designated for physical abilities were card A which had a D-value of .46 and card J which had a D-value of

.44. A and J had a higher D-value than the remaining card in this category.

For mental abilities five cards were noted in both processes as good discriminators. These included cards D, T, V, X, and FF, the cards with the highest D-values in the mental abilities category.

For appearance four cards were noted in both processes as good discriminators. These included cards M, Q, Z, and DD. Card BB which had a D-value of .41, the next highest D-value, and therefore was selected for the appearance category.

For personality traits four cards had been noted in both processes as good discriminators. These included cards, G, O, P, and R. The fifth card designated for personality traits was card AA which had a D-value of.38. This D-value would indicate that little or no revision is required for the item. No changes were made to card AA.

A prototype (Test 3) was developed using these 20 cards and is included in appendix H. The prototype was used in assessing content validity.

Item validity is another form of content validity. "[This] validity is concerned with whether the test items represent measurement in the intended content area" (Gay, 1996, p.139). Item validity was established by assessing whether the participants responded to the items in a

meaningful pattern.

The prototype was field tested by 203 respondents. The respondents' ratings of 1 and 2 were combined as a single score for inaccuracy and ratings of 4 and 5 were combined as a single score for accuracy. The results indicated that the cards were responded to in a meaningful pattern. The majority of participants responded with the expected response for 17 of the 20 cards. The majority of the responses for card B, L, and H differed from the expected response. This data is provided in Tables XII - XV.

Table XII
Frequency Pattern of Responses
Physical Abilities
N=203

Card	Rating	Frequency of Response	Percentage	Combined % for inaccuracy Responses (Rating 1+2)	Combined % for accuracy Responses (Rating 4+5)
A	1	26	12.8%	31.0%	
	2	37	18.2%		
	3	34	16.7%		
	*4	76	37.4%		52.2%
	*5	30	14.8%		
E	1	20	9.9%	24.2%	
	2	29	14.3%		
	3	25	12.3%		
	*4	78	38.4%		63.5%
	*5	51	25.1%		
F	1	17	8.4%	21.7%	
	2	27	13.3%		
	3	8	3.9%		
	*4	87	42.9%		74.4%
	*5	64	31.5%		
H	1	34	16.7%	44.3%	
	2	56	27.6%		
	3	26	12.8%		
	*4	62	30.5%		42.8%
	*5	25	12.3		
N	1	22	10.8%	31.5%	
	2	42	20.7%		
	3	14	6.9%		
	*4	86	42.4%		
	*5	39	19.2%		61.6%

*indicates expected response based on ratings of panel of expert judges

Table XIII
Frequency Pattern of Responses
Mental Abilities
N=203

Card	Rating	Frequency of Response	Percentage	Combined % for inaccuracy Responses (Rating 1+2)	Combined % for accuracy Responses (Rating 4+5)
I	*1	57	28.1%	49.8%	
	*2	44	21.7%		
	3	21	10.3%		
	4	55	27.1%		39.3%
	5	26	12.8%		
K	*1	37	18.2%	51.2%	
	*2	67	33.0%		
	3	30	14.8%		
	4	46	22.7%		34.0%
	5	23	11.3%		
L	*1	26	12.8%	37.9%	
	*2	52	25.6%		
	3	26	12.8%		
	4	75	36.9%		48.7%
	5	24	11.8%		
S	1	27	13.3%	41.9%	
	2	58	28.6%		
	3	27	13.3%		
	*4	65	32.0%		44.8%
	*5	26	12.8%		
T	*1	44	21.7%	49.8%	
	*2	55	27.1%		
	3	37	18.2%		
	4	46	22.7%		
	5	20	9.9%		32.6%

*indicates expected response based on ratings of panel of expert judges

Table XIV
Frequency Pattern of Responses
Appearance
N=203

Card	Rating	Frequency of Response	Percentage	Combined % for inaccuracy Responses (Rating 1+2)	Combined % for accuracy Responses (Rating 4+5)
B	*1	24	11.8%	34.5%	
	*2	46	22.7%		
	3	17	8.4%		
	4	84	41.4%		57.2%
	5	32	15.8%		
D	1	33	16.3%	37.5%	
	2	43	21.2%		
	3	15	7.4%		
	*4	75	36.9%		55.1%
	*5	37	18.2%		
J	1	32	15.8%	37.5%	
	2	44	21.7%		
	3	42	20.7%		
	*4	65	32.0%		41.9%
	*5	20	9.9		
M	1	24	11.8%	27.6%	
	2	32	15.8%		
	3	19	9.4%		
	*4	75	36.9%		63.0%
	*5	53	26.1%		
O	1	27	13.3%	25.6%	
	2	25	12.3%		
	3	40	19.7%		
	*4	82	40.4%		
	*5	29	14.3%		54.6%

*indicates expected response based on ratings of panel of expert judges

Table XV
Frequency Pattern of Responses
Personality Traits
N=203

Card	Rating	Frequency of Response	Percentage	Combined % for inaccuracy Responses (Rating 1+2)	Combined % for accuracy Responses (Rating 4+5)
C	1	25	12.3%	36.9%	
	2	50	24.6%		
	3	30	14.8%		
	*4	68	33.5%		48.3%
	*5	30	14.8%		
G	*1	52	25.6%	58.1%	
	*2	66	32.5%		
	3	18	8.9%		
	4	51	25.1%		33.0%
	5	16	7.9%		
O	*1	68	33.5%	63.1%	
	*2	60	29.6%		
	3	17	8.4%		
	4	42	20.7%		28.6%
	5	16	7.9%		
P	1	33	16.3%	41.4%	
	2	51	25.1%		
	3	22	10.8%		
	*4	66	32.5%		47.8%
	*5	31	15.3%		
R	1	48	23.6%	49.2%	
	2	52	25.6%		
	3	27	13.3%		
	*4	55	27.1%		
	*5	21	10.3%		37.4%

*indicates expected response based on ratings of panel of expert judges

Question 4

"Criterion-related validity involves an explicit standard against which claims about a test can be judged and includes both predictive and concurrent validity" (Gall,

Borg, & Gall, 1996).

"Concurrent validity is the degree to which the scores on a test are related to the scores on another test, already established, test administered at the same time" (Gay, 1996, p. 141). The steps involved in establishing concurrent validity for CARDS included:

1. Administering the CARDS to a defined group of individuals.
2. Administering a previously established, valid test to the same group at the same time
3. Correlating the two sets of scores
4. Evaluating the results to determine a validity coefficient.

The researcher selected Palmore's Facts on Aging Quiz 1 (FAQ1) to correlate with the CARDS instrument. This instrument was selected because it is can be completed quickly and the validity has been documented (Palmore, 1998, p. xi). The FAQ1 has also been used in over 150 other research studies when examining attitudes and knowledge about aging (Palmore, 1998, p. vii).

The final CARDS and FAQ1 instrument were administered to 115 individuals at the same time. Seventy-four percent of the respondents' scores indicated either both positive and both negative bias on both instruments. Fifty percent of the respondents scored a higher bias on the CARDS instrument

than on the FAQ1. Twenty seven percentage of the respondents had a score that indicated a greater negative bias and 23% had a score that indicated a greater positive bias.

A Pearson r correlation was obtained for scores on the two instruments. The results yielded a validity coefficient of .641 at the p =.01 level of significance. "The question of how high the coefficient should be to be considered "good" [for confirming concurrent validity] is not an easy question to answer. There is no magic number that a coefficient should reach. In general, it is a comparative matter" (Gay, 1996, p. 144). Gay (1996) indicates that a coefficient of .50 might be acceptable if there is only one test designed to predict a given criterion however it might not be if there are other tests available with higher coefficients.

There are other tests which are used to measure attitudes toward older adults; however, none of them have used this unusual format. Most are a written format of true/false or multiple choice questions. The Implicit Association Test (Greenwald, McGhee, & Schwarz, 1998) and Hummert's (1994) use of physiognomic cues to reveal stereotyping of the elderly do have participants respond to visual cues however the visual depictions are actual photographs rather that caricatures. Neither of these instruments includes any type of joke or humor.

The CARDS instrument is different from other tests which determine age bias. Therefore, the researcher concludes that a coefficient of .641 and at the $\underline{p}$ =.01 significance level confirms that there is a correlation between CARDS and FAQ1. Data for the participants' scores for both the FAQ1 and CARDS can be found in Appendix J.

Question 5

What is the reliability for an instrument identifying age bias?

"Reliability is the degree to which a test consistently measures whatever it measures and is expressed numerically, usually as a coefficient" (Gay, 1996, p. 145). A high coefficient indicates high reliability. There are two types of reliability, stability reliability and internal reliability (Gall, Borg, & Gall, 1996, p. 256). The researcher established stability reliability through test-retest, which shows the degree to which scores are consistent over time.

The CARDS instrument was administered to a group of 33 non-traditional community college students. The mean age of the group was 29.5 years. The time lapse between the tests was 2 weeks. Three of the respondents for the first test were not present for the second test, so the number of

respondents for the analysis was reduced to 30. Identifier numbers were placed on the first test and the second test response sheets so that test results could be analyzed to determine a coefficient of stability.

A Pearson r was used to correlate the two sets of scores and results yielded a reliability coefficient of .836 at the p =.01 level of significance. "Test-retest reliabilities for personality, interest, or attitude measures are often lower than those for aptitude test, but well constructed instruments measuring clearly defined traits may have test-retest coefficients in the .80s" (Crocker & Algina, 1986, p. 133). The test re-test of CARDS yielded a coefficient in this range confirming that the CARDS instrument demonstrated good reliability. The participant's scores and analysis of the data for the test re-test can be found in Appendix K.

Observational Data

In addition to the statistical analysis, the researcher believes it is important to report the way the participants responded to the CARDS instrument. Throughout all the reviews there were both negative and positive responses made in the way of laughter or a verbal "yuk" or "that's terrible". The participants appeared to be very much at ease

while reviewing the cards and also very open about expressing their comments. Many respondents immediately began discussions about the depictions after everyone had turned in their response sheet. This would suggest that the CARDS instrument is a non-threatening means of evaluating age bias and promoting discussion on aging issues.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study was to develop a valid and reliable instrument that can be used to analyze attitudes regarding aging. The researcher's intent was to develop an instrument that could be used as a quick reference to help individuals recognize their own possible age bias - both negative and positive.

A review of the literature indicated that ageism is prevalent in society. There is family ageism, medical ageism, social ageism, and economic ageism. This research focused primarily on economic ageism. Current employment practices regarding the older worker can be described as a form of economic ageism. Many employers continue to discriminate against older workers despite legislation against such discrimination (Palmore, 1999, p. 127). This discrimination is based on the stereotypes of older workers as not being as productive as younger workers, that older workers cannot learn new skills, that it is cheaper to hire

younger workers, or that younger workers need the job more than the older workers.

Summary of Findings

Question 1

What is the pool of items that can be used to produce an instrument to identify age bias?

A review of the literature indicates the there are four main constructs used when evaluating the way older adults are stereotyped; physical abilities, mental abilities, appearance, and personality traits (Brewer & Lui, 1984; Hummert, Garstka, Shaner, & Strehm, 1994; Hummert, Garstka, Shaner, & Strehm, 1995; Knox, Gekoski, & Johnson, 1995). The four constructs that most often are associated with stereotyping of the older person are also consistent with studies focusing on age attributes depicted in greeting cards and cartoons (Davies, 1977; Demos & Jache, 1981; Dillon & Jones, 1981; Mooney, Brabant, & Moran, 1993; Richman, 1977).

Cards that depicted jokes about the aging process and older adults were used in the development of the CARDS instrument. The depictions and sentiments displayed on the first set of 64 cards were the result of the researcher's

review of over 100 greeting cards that contained joking sentiments about aging and a review of approximately 75 jokes from internet sites that have a repertoire of jokes about older adults.

Question 2

What is the construct validity for an instrument identifying age bias?

A majority of the panel of expert judges were in agreement that 32 of the initial 64 cards did address the four construct of physical abilities, mental abilities, appearance, and personality traits. The panel found that many of the cards categorized as personality traits were not appropriate for that category. One card in personality traits was moved to the physical abilities category.

Question 3

What is the content validity for an instrument identifying age bias?

The tally procedure conducted for item analysis on the subset of 32 cards indicated that 22 of the cards demonstrated good discrimination. Computations for an index of discrimination that provided a D-value indicated that two

additional cards were good discriminators. Test items that provided a D-value of .40 are considered to items that are functioning satisfactorily (Crocker & Algina, 1986, p.315.)

The CARDS instrument was constructed using 20 of the cards, five from each of the four constructs. All but one cards used had a D-value of .40. That item had a D-value of 38. Cards with D-values between .30 and .39 usually need little or no revision.

A field test was conducted with 203 participants. Analysis of the data for the field test indicated that there was a meaningful pattern to the responses from the participants. The majority of participants responded with the expected response for 17 of the 20 cards.

Question 4

What is the criterion-related validity of an instrument identifying age bias?

There are various instruments that have been used to assess attitudes toward older adults, but few use any visual depictions in their instrument and there are no jokes used in the format of those that do have visual components. The CARDS instrument has a unique format; therefore, there is no measure available with which the validity coefficient can be compared. The test does correlate with the FAQ1, an

instrument that has been used to determine age bias, yielding a correlation coefficient of .641 with at the $\underline{p}$ =.01 level of significance confirming concurrent validity.

Question 5

What is the reliability of an instrument identifying age bias?

A coefficient of stability for the test re-test was .836 at the $\underline{p}$ =.01 level of significance confirming reliability for the CARDS instrument.

Conclusion

The study confirmed that the Categorical Age Reflectors and Descriptive Sentiments instrument is a valid and reliable instrument that can be used to determine age bias - both positive and negative.

Observational Data

The respondents were very anxious to share their feelings about the CARDS instrument which would suggest that in additional to the having good statistical validity and reliability CARDS is also a good tool to use to promote

discussions on aging issues. The respondents were anxious to voice their opinions about the depictions - both positive and negative. The verbal responses (both positive and negative) and the laughter of the participants while they reviewed the CARDS instrument indicate that participants do not feel uneasy when rating the cards.

The teachers in the classrooms indicated that the participants brought up the CARDS review several days after participating in the study. Professors in classes not originally selected to participate in the research contacted the researcher and asked that their classes have the opportunity to review the CARDS instrument. Some of the professors indicated they had heard about the instrument from other professors while others had been informed about CARDS from students.

Recommendations for Practice

Categorical Age Reflectors and Descriptive Sentiments is an instrument that can be used in a variety of settings to promote a better understanding of the aging process and older adults. The instrument lends itself to self evaluation and avoids the effects of socially desirable responses and thus elicits responses that more authentically reflect attitudes of respondents.

The instrument is appropriate for use in a wide variety of settings and for any educational level because of its simplistic format. CARDS could be used in business and educational seminars, conferences, and in-service training programs such as those in nursing homes. Various educational programs could benefit by using CARDS in classrooms. It would be appropriate for numerous fields including business, sociology, psychology, nursing, mental health, gerontology and family relations classes.

Professionals in the legal and medical fields could use CARDS as a training tool for their staff. Medical personnel, who have frequent contact with the elderly, could find CARDS helpful in uncovering any bias they might have. Negative attitudes towards the elderly on the part of medical personnel could jeopardize the health of a patient by just "writing off" symptoms they report.

The data indicates that ageist attitudes are evident in people in their teens and early twenties. The research data notes that in addition to negative ageism, positive ageism is also evident in our society and some do not have a realistic understanding of declines which are a part of the normal aging process. The researcher suggests that programs focusing on aging be initiated in high schools and colleges. Using a unique format for these classes (role-playing, photography of elderly family members) would have a greater

impact than where the old "read and recite" method is used. CARDS could be taken by each student at the beginning and end of the class as a pre and post evaluation. Because it is a self evaluation instrument and contains jokes, the introduction to the subject of aging may not appear so dull and dreary.

Further Research

Suggestions for further research include:

- The study using CARDS should be replicated on other populations or convenience samples to gather additional data to support validity of the instrument.

  The researcher established concurrent validity with Palmore's (1998) Facts on Aging Quiz 1. There are numerous instruments that measure age bias.

- Conduct research on CARDS with a population of respondents over 60 to determine if responses differ from respondents between the ages of 18 and 50.

  The researcher did not include any respondents over the age of 50. A comparison of the responses could provide data that indicates how older people view themselves and determine if there are any differences in the way the age groups view the cards.

- Development of an instrument with jokes that are all deemed to be positive.

  The cards used for the final CARDS instrument had depictions and sentiments which were negative. Would responses be different if a totally positive format were used?

Concluding Comments

Ageism is a cultural characteristic of the U.S. society. Various instruments have been developed to assess attitudes toward the aged but none of them have used jokes and very few use visual depictions. The simplistic format of the CARDS instrument provides a quick easy means of self evaluation in determining age bias. Although CARDS has a simplistic appearance the process of confirming validity and reliability required extensive data collection and analysis. The results of the validity and reliability procedures indicate that it does measure both positive and negative age bias.

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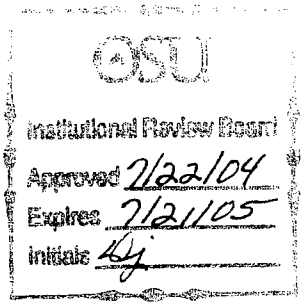
Yntema, S, (2001). *Americans 55 and older: A changing market.* New York: New Strategist Publications, Inc.

APPENDIX A

INFORMED CONSENT FORM

APPENDIX A

Informed Consent Form



Informed Consent Form

Please read the following information before completing the questionnaire.

Participation in this research study entitled Categorical Age Reflectors and Descriptive Sentiments (CARDS) is strictly voluntarily and you may choose not to participate or stop at any time if you choose not to complete the questionnaire.

Your responses are confidential so please do not sign the response sheet. Upon completion of the questionnaire please place it in the envelope so that your confidentially is maintained.

The purpose of the questionnaire is to obtain data that will be helpful in developing an instrument to determine attitudes about the aging process and the older population. Developing such an instrument may be a way of obtaining a user-friendly method to determine how aging and older persons are perceived. Answering this questionnaire poses no risk to you. No person's individual data will be released to their supervisor, employer, or instructor.

All information is strictly confidential and will only be used by the researcher, Robin Ginger Row, as part of her dissertation study at Oklahoma State University. The data will be maintained in a locked file cabinet in the researcher's home while the research project is being conducted. Upon completion and approval of her dissertation all records, including your responses will be shredded.

You may remove this sheet and keep it if you wish. Should you need to contact me I can be reached at 580-233-6298 or by e-mail at robingrow@hotmail.com

Thank you for assisting me in this research project.

APPENDIX B

64 ITEM PROTOTYPE

APPENDIX B

64 Item Prototype

Categorical Age Reflectors and Descriptive Sentiments (CARDS)

Proposed instrument to determine attitudes toward aging

The aging process if often characterized by various physical, mental, appearance, and personality changes. Sixteen cards for each of the four categories has been created to depict these characteristics. The categories (**physical abilities, mental abilities, physical appearance, and personality traits)** are designated at the top of each page.

If you think a card is inappropriate for the category where it has been placed please mark an X through the card and make comments if you wish.

Each card has been assigned an alphabetical designation
noted at the top of each card (e.g. AAA, BB, etc.) ----------→ AAA

QUESTION:
Are the caricatures and jokes in the cards depicting accurate characteristics of older persons?

Directions:

Please rate the cards from 1 to 5 regarding the depiction characterized by the card.

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

The same rating may be used as many time as you wish.
The rating scale from 1 to 5 is shown at the top left of each page.

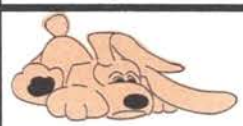
Below each card is a blank space where you can place your assigned rating----------→ **#** _____

Space is provided on each page for comments Comments_____
Please refer to the cards alphabetical lisitng (AA, DD, etc.) when making comments about a specific card

Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Physical Abilities

Card A	Card B	Card C	Card D
You're at that age when you will no longer hear people making snide remarks about your age... 	Remember when you were younger how MENTALLY irritating it was to lay in bed and hear a dripping faucet? 	Even at your age you can still walk around with your head held high  Keep it up!	Between 20 - 30 ...Tri- Weekly  Between 30-50 ...Try Weekly
 The hearing is one of the first things to go	Now it is PHYSICALLY irritating and causes those bladder urges!	You will eventually get use to those trifocals	 Over 50 ... Try Weakly
# _____	# _____	# _____	# _____

Comments _____

Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Physical Abilities

Card E	Card F	Card G	Card H
I heard you were writing a book about Senior Citizen Adventures!  And the first chapter is devoted to how to pace yourself for those exhausting long trips...	It's a sure sign of aging when a woman gets a sheer nightie... 	*I decided to get you a REGULAR card for your birthday.* 	**What do you and your car have in common?** 
to the aisles in the back of a Super Walmart!	But doesn't know anyone who can see through it	*Since you have so much IRREGULARITY in your life now*	**The older models seem to run out of air quicker**
# _____	# _____	# _____	# _____

Comments _____

Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Physical Abilities

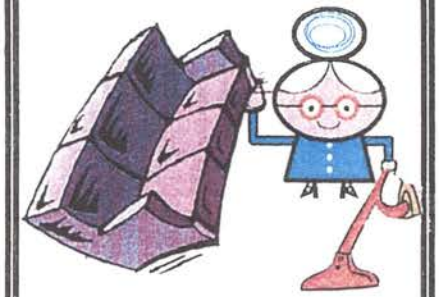
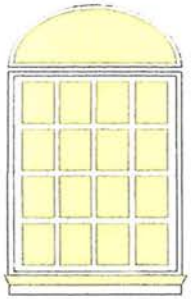
Card I	Card J	Card K	Card L
 We're still a couple of hot chicks...	Even at your age you are pretty good at opening those childproof caps... 	Remember...you are never too old to rock and roll... 	I heard your wife gave up sex for Lent 
~ ~ ~ ~ ~ ~ Too bad it only comes in flashes	 With a hammer!	And that's what it probably takes to get out of your chair	 And you didn't realize it until the fourth of July
# _____	# _____	# _____	# _____

Comments _____

Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3= No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Physical Abilities

Card M	Card N	Card O	Card P
As you age I understand multi-tasking becomes very important.  Like when you stoop to tie your shoe...	Even at your age  you can still do it all!	 You are amazing!	As you enter those golden years it seems your window of opportunity has opened and you and most of your friends are headed for sunny times. 
~ You try to find something else to do when you're down there ~	It's called... Mind Over Matter	Very often your joints are just as accurate as the National Weather Service	 Welcome to Sunny Times Nursing Home
# _____	# _____	# _____	# _____

Comments _____

_____

Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3= No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Mental Abilities

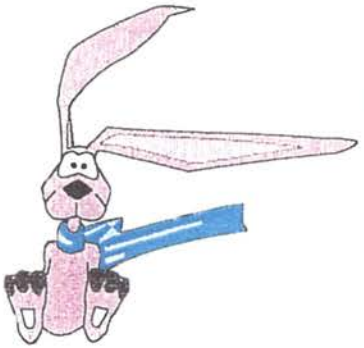
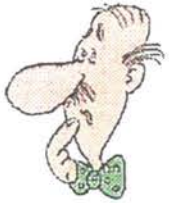
Card AA	Card BB	Card CC	Card DD
 At your age a good workout means...	Do you think a person's mental processes tend to slow down as they get older? 	 BIRTHDAYS ARE A GREAT TIME TO THINK ABOUT ALL THE GREAT MEMORIES YOU'VE HAD...	*Perhaps we know why women your age don't have babies...* 
jogging your memory!	Take your time... Want a little more time to think about it??? I'm in no rush...	AND YOU CAN IMAGINE ALL THOSE YOU HAVE FORGOTTEN	*They would put them down and forget where they put them*
# _____	# _____	# _____	# _____

Comments _____

Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3= No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Mental Abilities

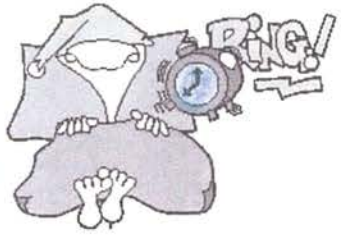
Card EE	Card FF	Card GG	Card HH
As we get older we realize we have the answers to life's questions 	Why are you upset if you just married a young gorgeous aerobics instructor who is all over you???? 	*A little older....*  *A little wiser...*	*Birthdays can do wonders for you!* 
Too bad we can't remember where we put them	 I can't remember where I live!	*It's a lousy trade-off!*	? *"Wonder" where you parked?* ? *"Wonder" why you came in here?* ?
# _____	# _____	# _____	# _____

Comments _____

Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Mental Abilities

Card II	Card JJ	Card KK	Card LL
As you and your friends grow older you can always be assured your secrets are safe with them 	Wisdom comes with age 	 Since you have turned 50 I have noticed your mind doesn't always wander...	Even though you are over 50 your mind is EXACTLY like a college student.  When you get up in the morning...
They can't remember them longer than 5 minutes	By now you should be one of the smartest people around!	 Sometimes it leaves completely	~ ~ ~ ~ ~ You can't remember what you did the night before, either!
# _____	# _____	# _____	# _____

Comments _____

Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Mental Abilities

Card MM	Card NN	Card OO	Card PP
Happy 60th Birthday! **In just a few years you will open this card and smile...** 	I'm glad the little irritations of life no longer bother you... 	*New regulations are being imposed on the sale of cars to those over 50...* 	 *Getting older is often associated with downsizing...*
And by then you will probably talk to it, too!	Aren't you glad you can't remember them	*GPS systems with directions home are now mandatory!*	*Guess your brain cells have reached a manageable level*
# _____	# _____	# _____	# _____

Comments _____

Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3= No opinion
4 = Somewhat Accurate
5 = Very Accurate

Physical Appearance

Card AAA	Card BBB	Card CCC	Card DDD
You're at that ~Metallic Age ~ 	 *The crystal ball says you're in for a very UP year!*	You've reached that age when your ship has finally come in... 	 ~Wilt~ Droop! Crack! Sag!
Silver in your hair **and** Gold in your teeth	~Number of wrinkles is UP~ ~Gray Hairs are UP~	Too bad the piers have collapsed!	Seems like the older you get the more you feel like the warranty on some of your parts just expired?
# _____	# _____	# _____	# _____

Comments _____

_____

Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3= No opinion
4 = Somewhat Accurate
5 = Very Accurate

Physical Appearance

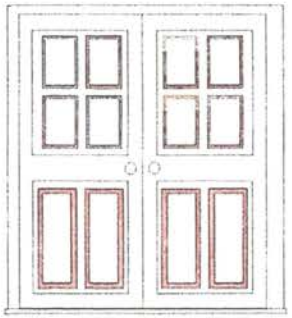
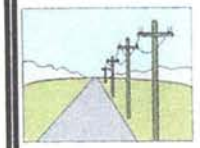
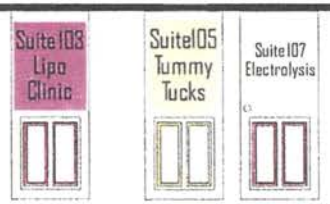
Card EEE	Card FFF	Card GGG	Card HHH
The good news is at your age the glass is still half full  The bad news is...	TIME MAY BE A GREAT HEALER  	You're not over the hill... 	Actually, "Buns-of-Steel" could be a hazard to your health 
it won't be long until your teeth are floating in it 	 BUT ITS A LOUSY BEAUTICIAN!	You're just over the belt	But no one has ever heard of lightning striking jello 
# _____	# _____	# _____	# _____

Comments _____

Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3= No opinion
4 = Somewhat Accurate
5 = Very Accurate

Physical Appearance

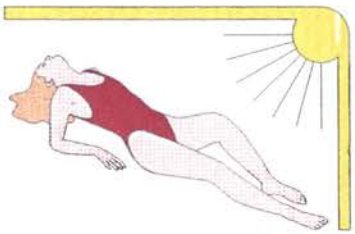
Card III	Card JJJ	Card KKK	Card LLL
You want to know the 3 secrets of keeping a youthful appearance?  1. Beauty is a state of mind 2. An active body is a healthy body	You know you're getting older when  those sharp curves you once had	Another inning in life... No runs... No hits... No errors... 	As you get older you will find new doors will open up for you 
3. The hair color is in aisle 3	 have become a wide, straight thoroughfare	No hair No teeth No muscles	
# _____	# _____	# _____	# _____

Comments _____

Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3= No opinion
4 = Somewhat Accurate
5 = Very Accurate

Physical Appearance

Card MMM	Card NNN	Card OOO	Card PPP
THE FOUR STAGES OF LIFE  1. You believe in Santa 2. You don't believe in Santa 3. You are Santa	***At your age I'm sure you know what Victoria's Secret is*** 	How do you slow down Father Time??? 	30 years ago you had a "Body-By-Jake"  Now you have "Legs-by-Rand-McNally"
YOU LOOK LIKE SANTA 	***No one your age can fit into their stuff.***	 Mother Make-Up!	More Red and Blue lines than the accurately scaled map of Texas
# _____	# _____	# _____	# _____

Comments _____

Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Personality Traits

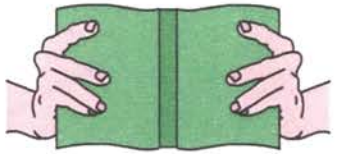
Card AAAA	Card BBBB	Card CCCC	Card DDDD
As you get older I know you don't get out often, but  I do see you get to the mall several times a week.	 *Like good wine - we grow more mellow with age Or is it???*	**Sick and tired of all the sarcastic jokes about people your age????**  I'm not surprised..	Let's face it - Aging is all about lines. You get lines on your face... Lines seem to get longer at public restrooms...  And you eventually cross that...
Tuesday- Blood pressure Checks Thursday - Senior Discount Day Friday - Free Samples Denture Adhesive, Laxatives	*As we age...we grow more mellow with wine!*	**~ The sense of humor is the first thing to go ~**	---------- Poverty Line
# _____	# _____	# _____	# _____

Comments _____

Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Personality Traits

Card EEEE	Card FFFF	Card GGGG	Card HHHH
Leno or Letterman?  Is that a hard choice for someone your age?	Happy Hour! Age 5 - Milk & Cookies  Age 21 - Beer and Burger  Age 30 - Marguerita's and Salsa	Worried about being 50?  Millions of people turn 50 everyday, but do they pout, complain, and snap at everyone?	*It's a fact*  Older people read the Bible more.
Absolutely not! A person your age is already asleep!	 Age 50 ~ A Nap ~	Sure they do! Old people are like that!	It's been called... Cramming for finals!
# _____	# _____	# _____	# _____

Comments _____

Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Personality Traits

Card MMMM	Card NNNN	Card OOOO	Card PPPP
You're at that age when you enjoy telling stories... 	Ever notice how people your age  are usually ready to go home...	 Traveling down the highway of life in your golden years will bring bigger things your way, like...	CONVERSATIONS WITH PEOPLE YOUR AGE OFTEN TURN INTO... 
 Over and over and over and over...	before they get to where they're going	BIGGER INSURANCE PREMIUMS All those traffic accidents are gonna cost you! 	" Dueling Ailments"
# _____	# _____	# _____	# _____

Comments _____

_____

Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccuarate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Personality Traits

Card IIII	Card JJJJ	Card KKKK	Card LLLL
  When you arrive at work today on your 50th birthday I understand they will be passing out hats and have signs everywhere 	 Even though you are in your twilight years I understand your days are quite full...	Getting older brings out lots of feelings  You feel hot - you feel cold - But most of the time...	YOU KNOW YOU ARE GETTING OLDER WHEN AT THE PEAK OF EXCITEMENT YOU YELL....
 Hard hats and warning signs 	 ~ Scheduling all those doctor appointments ~	 You just feel depressed!	
# _____	# _____	# _____	# _____

Comments _____

APPENDIX C

LETTER TO EXPERTS

APPENDIX C

Letter to Experts

2822 West Elm
Enid, OK 73703
August

Dear

Thank you for offering your time and expertise in reviewing the cards I have created as a part of the Categorical Age Reflector and Descriptor Sentiments (CARDS) instrument I am developing to assess attitudes about aging as a part of my doctoral dissertation at Oklahoma State University. Your individual responses will be kept confidential and you are not required to sign the review. All information will be maintained in a locked file cabinet in my home office until my dissertation is approved and will then be shredded. Responding to the questionnaire does not pose any risk.

The review of the cards should take between 20 and 30 minutes for you to complete. There are 64 cards which have been categorized by physical abilities, mental abilities, physical appearance and personality traits often characterized in older persons.

You are asked to review the cards and determine:

1. Is the card appropriate for the category (physical abilities, mental abilities, physical appearance, personality traits)?

2. Are the caricatures and jokes in the cards depicting accurate characteristics of older persons?

Specific instructions are given on the cover page.

A total of twenty cards which are judged to be the most accurate and most inaccurate will be selected from the 64 and used in developing the CARDS instrument. The CARDS instrument and Palmore's Facts on Aging Quiz 1 will then be completed by a sample population and the data run to determine a correlation. Test-retest will also be conducted to determine reliability. If you would like to have a copy of the final instrument and the results of the data I would be happy to send them to you after the research is finalized in December 2004. The instrument will be helpful in assessing attitudes toward older persons in a non-intrusive manner.

A self addressed stamped envelope is enclosed for returning the review. If you have any questions you can reach me at 405-413-5307 (Mobile) or 580-233-6298 (Home). My e-mail address is robingrow@hotmail.com

Thank you so much for your assistance.

Sincerely,

Robin Ginger Row

APPENDIX D

TEST 1 PROTOTYPE

AND RESPONSE KEY

APPENDIX D

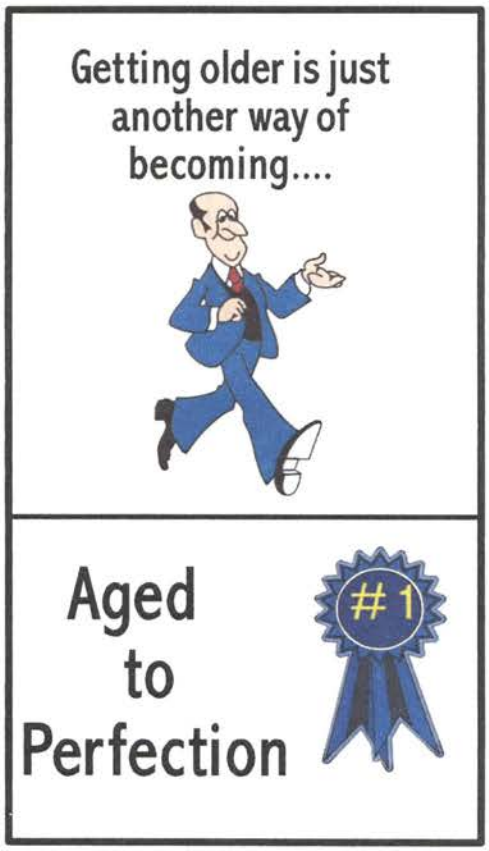
Test 1 Prototype and Response Key

CARDS

The following cards characterize perceptions of the aging process.

QUESTION: In your opinion are the depictions on the cards accurate?

Example



Directions:

Please rate the cards from 1 to 5.

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

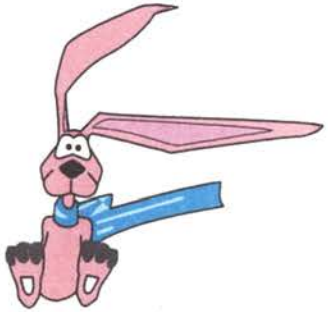
A response sheet has been provided where you may place your answers.

You may use the same rating as many times as you wish.

Thank you for participating in this research study.

Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Card A	Card B	Card C	Card D
You're at that age when you will no longer hear people making snide remarks about your age... 	*Birthdays can do wonders for you!* 	 *The crystal ball says you're in for a very UP year!*	**Happy 60th Birthday!** **In just a few years you will open this card and smile...** 
 The hearing is one of the first things to go	? ? ? *"Wonder" where you parked?* *"Wonder" why you came in here?* ? ?	**~Number of wrinkles is Up~** **~Gray Hairs are Up~**	**And by then you will probably talk to it too!**

Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Card E

You're at that ~Metallic Age~

Silver in your hair

and

Gold in your teeth

Card F

You know you're getting older when

those sharp curves you once had...

have become a wide, straight thoroughfare

Card G

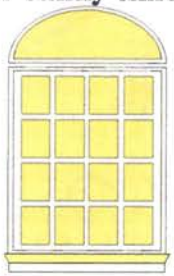
Sick and tired of all the sarcastic jokes about people your age????

I'm not surprised...

~ The sense of humor is the first thing to go ~

Card H

As you enter those golden years it seems your window of opportunity has opened and you and most of your friends are headed for sunny times.



Welcome to Sunny Times Nursing Home

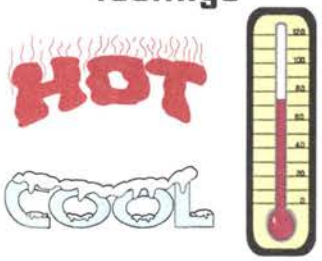
Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Card I	Card J	Card K	Card L
We're still a couple of hot chicks... 	**Happy Hour!** Age 5 – Milk and cookies   Age 21 – Beer and Burger   Age 30 – Margueritas and salsa	 You are Amazing!	TIME MAY BE A GREAT HEALER  
~ ~ ~ ~ ~ ~ Too bad it only comes in flashes!	 Age 60 A Nap ~	Very often your joints are just about as accurate as the National Weather Service	 BUT IT'S A LOUSY BEAUTICIAN!

Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Card M	Card N	Card O	Card P
The four stages of life  1. You believe in Santa 2. You don't believe in Santa 3. You are Santa	As you get older you really enjoy telling stories 	Getting older brings out lots of feelings  You feel hot- you feel cold - But most of the time...	Leno or Letterman?  Is that a hard choice for someone your age?
You look like Santa 	 Over and over and over and over.	 You just feel depressed	Absolutely not! A person your age is already asleep!

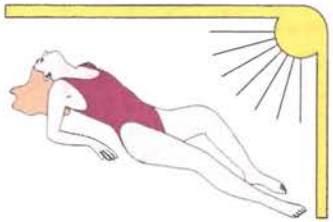
Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Card Q	Card R	Card S	Card T
How do you slow down Father Time??? 	**Worried about being 60?**  Millions of people turn 60 everyday, but do they pout, complain , and snap at everyone?	 Birthdays are a great time to think about all the great memories you've had	Why are you upset if you just married a young gorgeous aerobics instructor who is all over you??? 
 ***Mother Make-up!***	Sure they do! Old people are like that!	And you can imagine all those you have forgotten	 I can't remember where I live

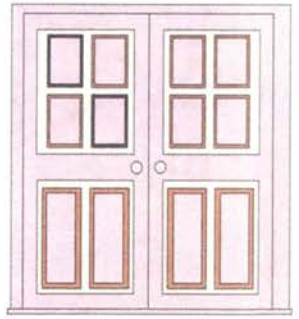
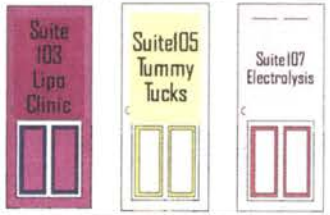
Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Card U	Card V	Card W	Card X
New regulations are being imposed on the sale of cars to those who are over 60. 	*Perhaps we know why women your age don't have babies...* 	*30 years ago you had a "Body-By-Jake"*  *Now you have "Legs-by-Rand McNally"*	 At your age a good workout means...
GPS systems with directions home are now mandatory	*They would put them down and forget where they put them*	More Red and Blue lines than an accurately scaled map of Texas	**jogging your memory**

Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Card Y	Card Z	Card AA	Card BB
It's a sure sign of aging when a woman gets a sheer nightie... 	Another inning in life... No runs... No hits... No errors... 	**Conversations with people your age often turn into...** 	As you get older you will find new doors will open up for you 
But doesn't know anyone who can see through it	*No hair* *No teeth* *No muscles*	**Dueling ailments**	

Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Card CC	Card DD	CardEE	Card FF
EVEN THOUGH YOU ARE OVER 60 YOUR MIND IS EXACTLY LIKE A COLLEGE STUDENT.  WHEN YOU GET UP IN THE MORNING...	OK- so we do get broader as we get a little older. Look at it this way... "Buns-of-Steel" could be a hazard to your health 	As you and your friends grow older you can always be assured your secrets are safe with them... 	*As we get older we realize we have the answers to life's questions* 
~ ~ ~ ~ ~ ~ ~ ~ ~ YOU CAN'T REMEMBER WHAT YOU DID LAST NIGHT EITHER!	 But no one has ever heard of lightning striking jello!	They can't remember them longer than 5 minutes!	*Too bad we can't remember where we put them*

RESPONSE SHEET

Example

Card Rating
Y = 4

Card	Rating	Card	Rating	Card	Rating
A	= _____	**N**	= _____	**AA**	= _____
B	= _____	**O**	= _____	**BB**	= _____
C	= _____	**P**	= _____	**CC**	= _____
D	= _____	**Q**	= _____	**DD**	= _____
E	= _____	**R**	= _____	**EE**	= _____
F	= _____	**S**	= _____	**FF**	= _____
G	= _____	**T**	= _____	**Your year of birth**	_____
H	= _____	**U**	= _____	**Male or Female**	_____
I	= _____	**V**	= _____		
J	= _____	**W**	= _____		
K	= _____	**X**	= _____		
L	= _____	**Y**	= _____		
M	= _____	**Z**	= _____		

Comments_____

_____

RESPONSE SHEET KEY
TEST 1

Example

Card Rating
Y = 4

Card	Rating	Card	Rating	Card	Rating
A	= 4 or 5	N	= 4 or 5	AA	= 4 or 5
B	= 4 or 5	O	= 1 or 2	BB	= 4 or 5
C	= 4 or 5	P	= 4 or 5	CC	= 1 or 2
D	= 1 or 2	Q	= 4 or 5	DD	= 4 or 5
E	= 4 or 5	R	= 1 or 2	EE	= 4 or 5
F	= 4 or 5	S	= 4 or 5	FF	= 1 or 2
G	= 1 or 2	T	= 1 or 2	Your year of birth	_____
H	= 1 or 2	U	= 1 or 2	Male or Female	_____
I	= 4 or 5	V	= 1 or 2		
J	= 4 or 5	W	= 1 or 2		
K	= 4 or 5	X	= 4 or 5		
L	= 4 or 5	Y	= 1 or 2		
M	= 4 or 5	Z	= 1 or 2		

Comments_____

_____

APPENDIX E

TEST 2 PROTOTYPE

AND RESPONSE KEY

APPENDIX E

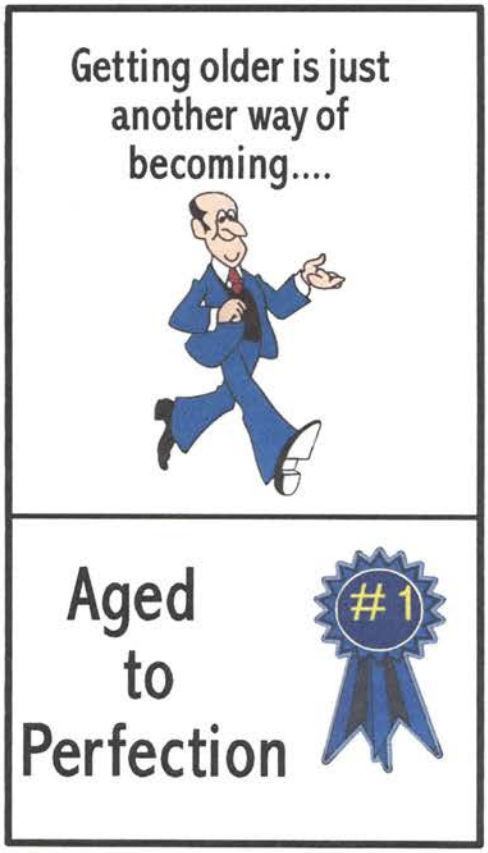
Test 2 Prototype and Response Key

CARDS

The following cards characterize perceptions of the aging process.
In reviewing the cards consider the term "older" as referring to age 60 or over.

QUESTION: In your opinion are the depictions on the cards accurate?

Example



Directions:

Please rate the cards from 1 to 5.

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

A response sheet has been provided where you may place your answers.

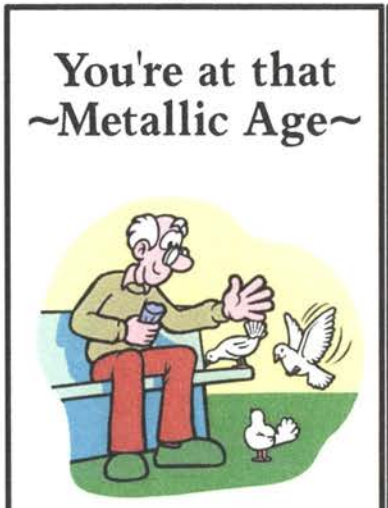
You may use the same rating as many times as you wish.

Thank you for participating in this research study.

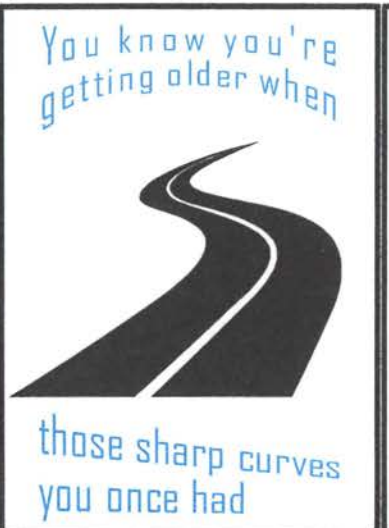
Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Card A



Card B



Card C

Card D

Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Card E

The four stages of life

1. You believe in Santa
2. You don't believe in Santa
3. You are Santa

You look like Santa

Card F

As you get older you really enjoy telling stories

Over and over and over and over.

Card G

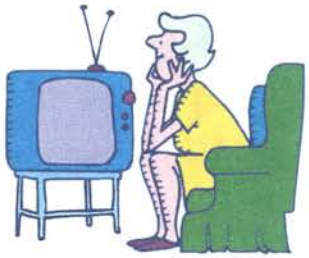
Getting older brings out lots of feelings

You feel hot- you feel cold - But most of the time...

You just feel depressed

Card H

Leno or Letterman?



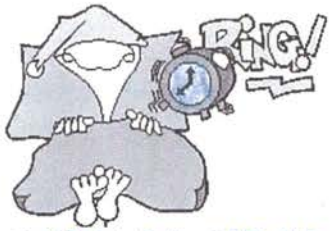
Is that a hard choice for someone your age?

Absolutely not!

A person your age is already asleep!

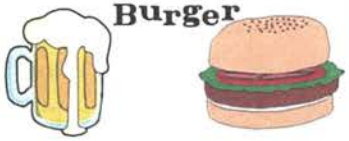
Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Card I	Card J	Card K	Card L
EVEN THOUGH YOU ARE OVER 60 YOUR MIND IS EXACTLY LIKE A COLLEGE STUDENT.  WHEN YOU GET UP IN THE MORNING...	OK- so we do get broader as we get a little older. Look at it this way... "Buns-of-Steel" could be a hazard to your health 	As you and your friends grow older you can always be assured your secrets are safe with them... 	*As we get older we realize we have the answers to life's questions* 
~ ~ ~ ~ ~ ~ ~ ~ ~ YOU CAN'T REMEMBER WHAT YOU DID LAST NIGHT EITHER!	 But no one has ever heard of lightning striking jello!	They can't remember them longer than 5 minutes!	*Too bad we can't remember where we put them*

Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Card M	Card N	Card O	Card P
We're still a couple of hot chicks... 	**Happy Hour!** Age 5 – Milk and cookies  Age 21 – Beer and Burger  Age 30 – Margueritas and salsa	 You are Amazing!	TIME MAY BE A GREAT HEALER  
~ ~ ~ ~ ~ ~ Too bad it only comes in flashes!	 Age60 A Nap ~	Very often your joints are just about as accurate as the National Weather Service	 BUT IT'S A LOUSY BEAUTICIAN!

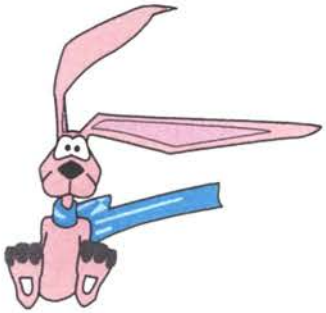
Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Card Q	Card R	Card S	Card T
How do you slow down Father Time??? 	**Worried about being 60?**  Millions of people turn 60 everyday, but do they pout, complain , and snap at everyone?	 Birthdays are a great time to think about all the great memories you've had	Why are you upset if you just married a young gorgeous aerobics instructor who is all over you??? 
 ***Mother Make-up!***	Sure they do! Old people are like that!	And you can imagine all those you have forgotten	 I can't remember where I live

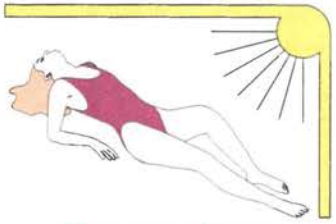
Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Card U	Card V	Card W	Card X
You're at that age when you will no longer hear people making snide remarks about your age... 	*Birthdays can do wonders for you!* 	 *The crystal ball says you're in for a very UP year!*	**Happy 60th Birthday!** **In just a few years you will open this card and smile...** 
 The hearing is one of the first things to go	? ? ? *"Wonder" where you parked?* ? *"Wonder" why you came in here?* ?	**~Number of wrinkles is Up~** **~Gray Hairs are Up~**	**And by then you will probably talk to it too!**

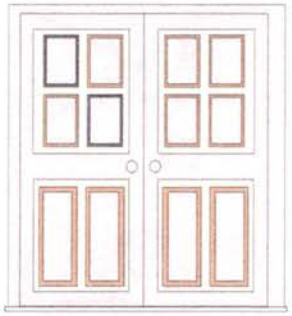
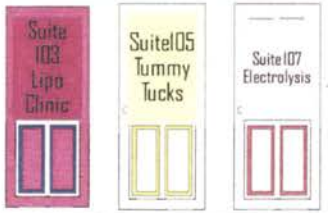
Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Card Y	Card Z	Card AA	Card BB
New regulations are being imposed on the sale of cars to those who are over 60. 	*Perhaps we know why women your age don't have babies...* 	*30 years ago you had a "Body-By-Jake"*  *Now you have "Legs-by-Rand McNally"*	 At your age a good workout means...
GPS systems with directions home are now mandatory	*They would put them down and forget where they put them*	More Red and Blue lines than an accurately scaled map of Texas	jogging your memory

Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Card CC	Card DD	Card EE	Card FF
It's a sure sign of aging when a woman gets a sheer nightie... 	Another inning in life... No runs... No hits... No errors... 	**Conversations with people your age often turn into...** 	As you get older you will find new doors will open up for you 
But doesn't know anyone who can see through it	No hair No teeth No muscles	**Dueling ailments**	

RESPONSE SHEET KEY
TEST 2

Example

Card Rating
Y = 4

Card	Rating	Card	Rating	Card	Rating
A	4 or 5	N	4 or 5	AA	1 or 2
B	4 or 5	O	4 or 5	BB	4 or 5
C	1 or 2	P	4 or 5	CC	1 or 2
D	1 or 2	Q	4 or 5	DD	1 or 2
E	4 or 5	R	1 or 2	EE	4 or 5
F	4 or 5	S	4 or 5	FF	4 or 5
G	1 or 2	T	1 or 2	Your year of birth	
H	4 or 5	U	4 or 5	Male or Female	
I	1 or 2	V	4 or 5		
J	4 or 5	W	4 or 5		
K	4 or 5	X	1 or 2		
L	1 or 2	Y	1 or 2		
M	4 or 5	Z	1 or 2		

Comments_____

_____

APPENDIX F

SCORED RESPONSE SHEET

APPENDIX F

Scored Response Sheet

Example

Card Rating

Y = 4

SCORE = 110

Card	Rating	Card	Rating	Card	Rating
A	4	N	4	AA	4
B	4	O	5	BB	4
C	1	P	2	CC	2
D	2	Q	4	DD	4
E	5	R	4	EE	2
F	5	S	2	FF	4
G	5	T	1	Your year of birth	1972
H	4	U	2	Male or Female	Male
I	4	V	4		
J	2	W	4		
K	4	X	4		
L	3	Y	2		
M	4	Z	5		

Comments_____

APPENDIX G

FACTS ON AGING QUIZ (FAQ1)

AND RESPONSE KEY

APPENDIX G

Facts on Aging Quiz (FAQ1) and Key

Palmore's Facts on Aging Quiz

Mark the statements "T" for true or "F" for false. You may also use "DK" for Don't Know.

_____ 1. The majority of old people (age 65+) are senile (have defective memory, are disoriented, or demented).
_____ 2. The five senses (sight, hearing, taste, touch, and smell) all tend to weaken in old age.
_____ 3. The majority of old people have no interest, nor capacity for, sexual relations.
_____ 4. Lung vital capacity tends to decline in old age.
_____ 5. The majority of old people feel miserable most of the time.
_____ 6. Physical strength tends to decline with age.
_____ 7. At least one-tenth of the aged are living in long stay institutions.
_____ 8. Aged drivers have fewer accidents per driver than those under age 65.
_____ 9. Older workers usually cannot work as effectively as younger workers.
_____ 10. Over three fourths of the aged are healthy enough to do their own normal activities without help.
_____ 11. The majority of old people are unable to adapt to change.
_____ 12. Old people usually take longer to learn something.
_____ 13. Depression is more frequent among the elderly than among younger people.
_____ 14. Older people tend to react slower than younger people.
_____ 15. In general, old people tend to be very much alike.
_____ 16. The majority of old people say they are seldom bored.
_____ 17. The majority of old people are socially isolated.
_____ 18. Older workers have fewer accidents than younger workers.
_____ 19. Over 20% of the population are now age 65 or older.
_____ 20. The majority of medical practitioners tend to give low priority to the aged.
_____ 21. The majority of old people have incomes below the poverty line (as defined by the federal government).
_____ 22. The majority of old people are working or would like to have some kind of work to do (including housework and volunteer work).
_____ 23. Old people tend to become more religious as they age.
_____ 24. The majority of old people say they are seldom irritated or angry.
_____ 25. The health and economic status of old people will be about the same or worse in the year 2010 (compared with younger people).

Scoring Key for Palmore's Facts on Aging Quiz 1

Palmore's Facts on Aging Quiz 1

* F	1. The majority of old people (age 65+) are senile (have defective memory, are disoriented, or demented).
+ T	2. The five senses (sight, hearing, taste, touch, and smell) all tend to weaken in old age.
* F	3. The majority of old people have no interest, nor capacity for, sexual relations.
+ T	4. Lung capacity tends to declines in old age.
* F	5. The majority of old people feel miserable most of the time.
+ T	6. Physical strength tends to decline with age.
* F	7. At least one-tenth of the aged are living in long stay institutions.
^ T	8. Aged drivers have fewer accidents per driver than those under age 65.
* F	9. Older workers usually cannot work as effectively as younger workers.
^ T	10. Over three-fourths of the aged are healthy enough to do their own normal activites without help.
* F	11. The majority of old people are unable to adapt to change.
+ T	12. Old people usually take longer to learn something.
* F	13. Depression is more frequent among the elderly than among young people.
+ T	14. Older people tend to react slower than younger people.
F	15. In general, old people tend to be very much alike.
^ T	16. The majority of old people say they are seldom bored.
* F	17. The majority of old people are socially isolated.
^ T	18. Older workers have fewer accidents than younger workers.
F	19. Over 20% of the population are now age 65 or older.
T	20. The majority of medical practitioners tend to give low priority to the aged.
* F	21. The majority of old people have incomes below the poverty line (as defined by the federal government).
^ T	22. The majority of old people are working or would like to have some kind of work to do (including housework and volunteer work).
F	23. Old people tend to become more religious as they age.
^ T	24. The majority of old people say they are seldom irritated or angry.
* F	25. The health and economic status of old people will be about the same or worse in the year 2010 (compared with younger people).

* Indicates Negative Bias if marked True

^ Indicates Negative Bias if marked False

+ Indicates Positive Bias if marked False

Items 15, 19, 20, and 23 are not considered in scoring for age bias

APPENDIX H

TEST 3 PROTOTYPE

AND RESPONSE KEY

APPENDIX H

Test 3 Prototype and Response Key

CARDS

The following cards characterize perceptions of the aging process.
In reviewing the cards consider the term "older" as referring to age 60 or over.

QUESTION: In your opinion are the depictions on the cards accurate?

Directions:

Please rate the cards from 1 to 5.

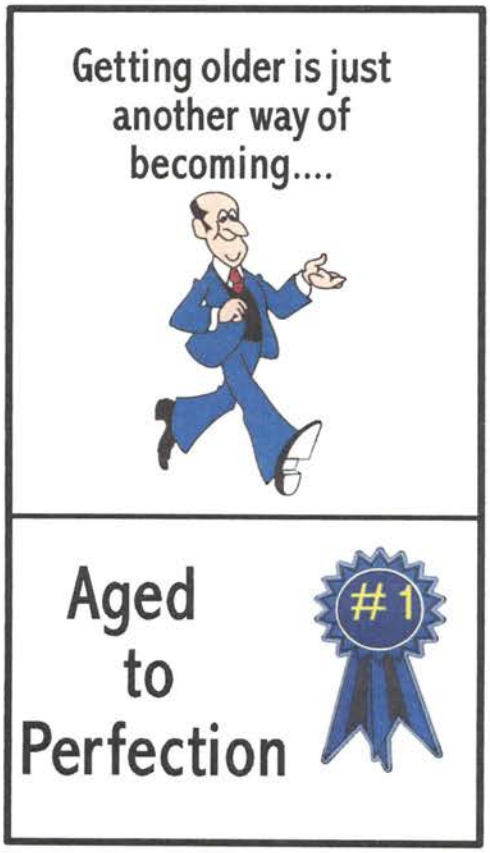
1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

A response sheet has been provided where you may place your answers.

You may use the same rating as many times as you wish.

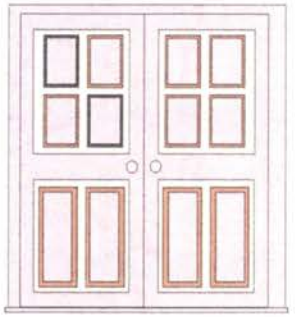
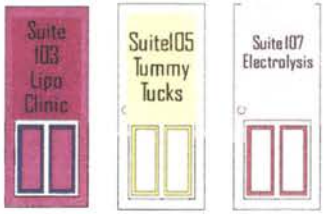
Thank you for participating in this research study.

Example



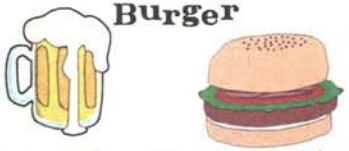
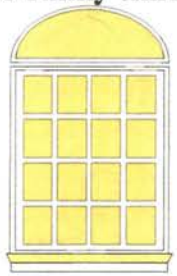
Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Card A	Card B	Card C	Card D
It's a sure sign of aging when a woman gets a sheer nightie... 	Another inning in life... No runs... No hits... No errors... 	Conversations with people your age often turn into... 	As you get older you will find new doors will open up for you 
But doesn't know anyone who can see through it	No hair No teeth No muscles	Dueling ailments	

Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Card E	Card F	Card G	Card H
We're still a couple of hot chicks... 	**Happy Hour!** Age 5 – Milk and cookies  Age 21 – Beer and Burger  Age 30 – Margueritas and salsa	Sick and tired of all the sarcastic jokes about people your age????  I'm not surprised...	**As you enter those golden years it seems your window of opportunity has opened and you and most of your friends are headed for sunny times.** 
~ ~ ~ ~ ~ ~ Too bad it only comes in flashes!	 **Age60 ~A Nap~**	**~ The sense of humor is the first thing to go ~**	 Welcome to Sunny Times Nursing Home

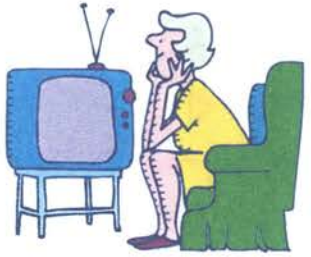
Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Card I	Card J	Card K	Card L
Perhaps we know why women your age don't have babies... 	OK - so we do get broader as we get a little older. Look at it this way... "Buns-of-Steel" could be a hazard to your health 	Happy 60th Birthday! In just a few years you will open this card and smile... 	*As we get older we realize we have the answers to life's questions* 
They would put them down and forget where they put them	 But no one has ever heard of lightning striking jello!	And by then you will probably talk to it too!	*Too bad we can't remember where we put them*

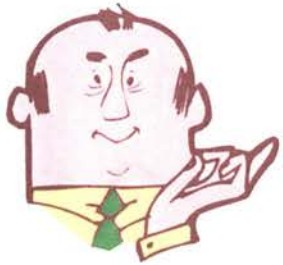
Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Card M	Card N	Card O	Card P
The four stages of life  1. You believe in Santa 2. You don't believe in Santa 3. You are Santa	You're at that age when you will no longer hear people making snide remarks about your age... 	Getting older brings out lots of feelings  You feel hot - you feel cold - But most of the time...	Leno or Letterman?  Is that a hard choice for someone your age?
You look like Santa 	The hearing is one of the first things to go 	 You just feel depressed	Absolutely not! A person your age is already asleep!

Rating Scale

1 = Very Inaccurate
2 = Somewhat Inaccurate
3 = No Opinion
4 = Somewhat Accurate
5 = Very Accurate

Card Q	Card R	Card S	Card T
How do you slow down Father Time??? 	**Worried about being 60?**  Millions of people turn 60 everyday, but do they pout, complain , and snap at everyone?	 At your age a good workout means...	Why are you upset if you just married a young gorgeous aerobics instructor who is all over you??? 
 ***Mother Make-up!***	Sure they do! Old people are like that!	**jogging your memory**	 I can't remember where I live

Thank you for completing the first part of the survey.

Now please complete the second page attached to your response sheet entitled Palmore's Facts on Aging Quiz

Palmore's Facts on Aging Quiz

Mark the statements "T" for true or "F" for false. You may also use "DK" for Don't Know.

_____ 1. The majority of old people (age 65+) are senile (have defective memory, are disoriented, or demented).
_____ 2. The five senses (sight, hearing, taste, touch, and smell) all tend to weaken in old age.
_____ 3. The majority of old people have no interest, nor capacity for, sexual relations.
_____ 4. Lung vital capacity tends to decline in old age.
_____ 5. The majority of old people feel miserable most of the time.
_____ 6. Physical strength tends to decline with age.
_____ 7. At least one-tenth of the aged are living in long stay institutions.
_____ 8. Aged drivers have fewer accidents per driver than those under age 65.
_____ 9. Older workers usually cannot work as effectively as younger workers.
_____ 10.Over three fourths of the aged are healthy enough to do their own normal activities without help.
_____ 11. The majority of old people are unable to adapt to change.
_____ 12. Old people usually take longer to learn something.
_____ 13. Depression is more frequent among the elderly than among younger people.
_____ 14. Older people tend to react slower than younger people.
_____ 15. In general, old people tend to be very much alike.
_____ 16. The majority of old people say they are seldom bored.
_____ 17. The majority of old people are socially isolated.
_____ 18. Older workers have fewer accidents than younger workers.
_____ 19. Over 20% of the population are now age 65 or older.
_____ 20. The majority of medical practitioners tend to give low priority to the aged.
_____ 21. The majority of old people have incomes below the poverty line (as defined by the federal government).
_____ 22. The majority of old people are working or would like to have some kind of work to do (including housework and volunteer work).
_____ 23. Old people tend to become more religious as they age.
_____ 24. The majority of old people say they are seldom irritated or angry.
_____ 25. The health and economic status of old people will be about the same or worse in the year 2010 (compared with younger people).

RESPONSE SHEET KEY

Concurrent Validity

Card		Rating	Card		Rating
□	A =	4 or 5	□	N =	4 or 5
○	B =	1 or 2	○	O =	1 or 2
□	C =	4 or 5	□	P =	4 or 5
□	D =	4 or 5	□	Q =	4 or 5
□	E =	4 or 5	○	R =	1 or 2
□	F =	4 or 5	□	S =	4 or 5
○	G =	1 or 2	○	T =	1 or 2
○	H =	1 or 2			
○	I =	1 or 2			
□	J =	4 or 5			
○	K =	1 or 2			
○	L =	1 or 2			
□	M =	4 or 5			

○ Indicates Negative if marked 4 or 5 (Possibility of 9 negative items)

□ Indicates Positive if marked 1 or 2 (Possibility of 11 positive items)

Scoring mechanisms

$$\frac{\text{Positive age bias}}{\text{Number of responses incorrectly marked positive}} \text{ minus } \frac{\text{Negative age bias}}{\text{Number of incorrectly marked negative}} = \text{NAB}^*$$

$$\frac{}{11 - \text{Number of positive items}} \qquad \frac{}{9 - \text{Number of negative items}}$$

*Net age bias

Scoring Key

Palmore's Facts on Aging Quiz 1

* F	1. The majority of old people (age 65+) are senile (have defective memory, are disoriented, or demented).
+ T	2. The five senses (sight, hearing, taste, touch, and smell) all tend to weaken in old age.
* F	3. The majority of old people have no interest, nor capacity for, sexual relations.
+ T	4. Lung capacity tends to declines in old age.
* F	5. The majority of old people feel miserable most of the time.
+ T	6. Physical strength tends to decline with age.
* F	7. At least one-tenth of the aged are living in long stay institutions.
^ T	8. Aged drivers have fewer accidents per driver than those under age 65.
* F	9. Older workers usually cannot work as effectively as younger workers.
^ T	10. Over three-fourths of the aged are healthy enough to do their own normal activites without help.
* F	11. The majority of old people are unable to adapt to change.
+ T	12. Old people usually take longer to learn something.
* F	13. Depression is more frequent among the elderly than among young people.
+ T	14. Older people tend to react slower than younger people.
F	15. In general, old people tend to be very much alike.
^ T	16. The majority of old people say they are seldom bored.
* F	17. The majority of old people are socially isolated.
^ T	18. Older workers have fewer accidents than younger workers.
F	19. Over 20% of the population are now age 65 or older.
T	20. The majority of medical practitioners tend to give low priority to the aged.
* F	21. The majority of old people have incomes below the poverty line (as defined by the federal government).
^ T	22. The majority of old people are working or would like to have some kind of work to do (including housework and volunteer work).
F	23. Old people tend to become more religious as they age.
^ T	24. The majority of old people say they are seldom irritated or angry.
* F	25. The health and economic status of old people will be about the same or worse in the year 2010 (compared with younger people).

* Indicates Negative Bias if marked True

^ Indicates Negative Bias if marked False

+ Indicates Positive Bias if marked False

Items 15, 19, 20, and 23 are not considered in scoring for age bias

APPENDIX I

REPRINT RELEASE FOR FAQ1

APPENDIX I

Reprint Release for FAQ1

Springer Publishing Company

11 West 42nd Street, New York, NY 10036-8002
Tel: 212 431-4370 ▪ Fax: 212 941-7842 ▪ www.SpringerPub.com

Ms. Robin Row
2822 West Elm
Enid OK 73703

Please refer to this number in correspondence:
BPL 04 - 74

Dear Ms. Row,

Thank you for your request of 2 September 2004 to make reproductions from our publication

Palmore: THE FACTS ON AGING QUIZ 2E; 1998

You request permission to make 400 copies of the following material :

The Facts on Aging Quiz1, pp 3-5

The results of your reprint are requested for inclusion in:

Research Dissertation: "Categorical Age Reflectors and Descriptor Sentiments (CARDS)," Robin G. Row, Oklahoma State University; 2004

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Dorothy Kouwenberg

Dorothy Kouwenberg, Permissions Coordinator Date: 2 September 2004

APPENDIX J

CONCURRENT VALIDITY DATA

APPENDIX J

Concurrent Validity Data

Age	CARDS	FAQ1	Gender
40	0.62	0.29	female
31	0.35	0.16	female
27	0.91	0.35	female
37	0.73	0.34	female
25	0.36	0.22	female
18	-0.58	-0.18	female
26	0.02	-0.25	female
36	0.82	0.41	female
20	-0.1	-0.15	female
24	-0.38	0.01	female
26	0.03	0.07	female
47	-0.06	-0.18	female
40	0.55	-0.38	female
22	0.05	0.01	female
20	0.53	-0.05	female
38	-0.09	-0.63	female
47	0.09	-0.63	female
21	0.18	-0.18	female
19	-0.67	-0.38	female
30	0.25	0.15	female
34	-0.29	-0.11	female
22	0.44	0.02	female
22	-0.09	-0.38	female
24	0.24	-0.56	female
49	-0.15	-0.5	female
20	-0.58	-0.43	female
21	-0.38	-0.31	female
19	0.31	-0.3	female
23	0.73	0.35	female
30	0.28	-0.18	female
26	0.8	-0.18	female
41	-0.63	-0.18	female
38	0.3	-0.18	female
40	0.16	0.01	female
50	0.09	-0.16	female
49	-0.55	-0.24	female
48	-0.35	-0.04	female
40	0.35	-0.27	female
41	-0.13	-0.18	female
25	0.56	0.27	female
33	0.36	-0.18	female
28	-1	-0.63	female
27	-0.69	-0.16	female
50	-0.14	-0.23	female
21	-0.27	0.14	female

29	-0.52	-0.16	female
27	0.01	-0.02	female
43	0.28	-0.11	female
47	-0.79	-0.36	female
18	-0.22	-0.16	female
18	0.49	0.06	female
22	-1	-0.44	female
19	-0.54	-0.69	female
19	-0.12	-0.17	female
20	-0.62	-0.56	female
20	-0.57	-0.31	female
46	0.51	0.09	female
24	0.62	0.69	female
40	0.13	0.75	female
33	0.36	0.02	female
46	0.46	0.41	female
21	-0.01	-0.04	female
35	0.18	0.02	female
24	0.82	0.21	female
19	0.01	0.49	female
25	-0.02	-0.3	female
21	-0.29	-0.38	female
22	0.79	0.59	female
29	-0.17	-0.18	female
38	0.73	0.81	female
18	0.08	-0.17	female
19	0.24	-0.19	female
35	0.42	0.21	female
24	-0.42	-0.56	female
28	0.01	-0.19	female
27	-0.67	-0.36	female
23	0.22	-0.3	female
22	-0.47	-0.31	female
24	-0.06	-0.16	female
40	-0.2	-0.56	female
18	0.16	0.08	female
23	0.03	0.02	female
19	-0.36	-0.69	female
27	-0.04	0.15	female
22	0.14	0.09	male
37	-0.62	-0.74	male
28	0.03	-0.4	male
22	0.05	-0.1	male
47	0.5	-0.31	male
24	-0.46	-0.5	male
40	0.51	-0.44	male
35	-1	-0.63	male
36	-0.58	-0.04	male
30	0.25	-0.38	male
49	0.42	0.38	male
48	0.07	0.21	male
21	0.19	-0.31	male

19	-0.5	-0.71	male
18	-0.86	-0.63	male
19	-0.12	-0.25	male
20	-0.71	-0.36	male
28	-0.79	-0.56	male
25	-0.82	-0.43	male
21	-0.6	-0.57	male
19	-0.78	-0.63	male
30	-0.57	-0.54	male
48	-0.91	-0.23	male
48	-0.16	-0.36	male
20	0.22	-0.44	male
19	0.67	0.01	male
45	-0.4	-0.22	male
20	-0.8	-0.3	male
23	0.22	-0.24	male
25	0.46	0.22	male
35	-0.36	-0.31	male

Correlations

Descriptive Statistics

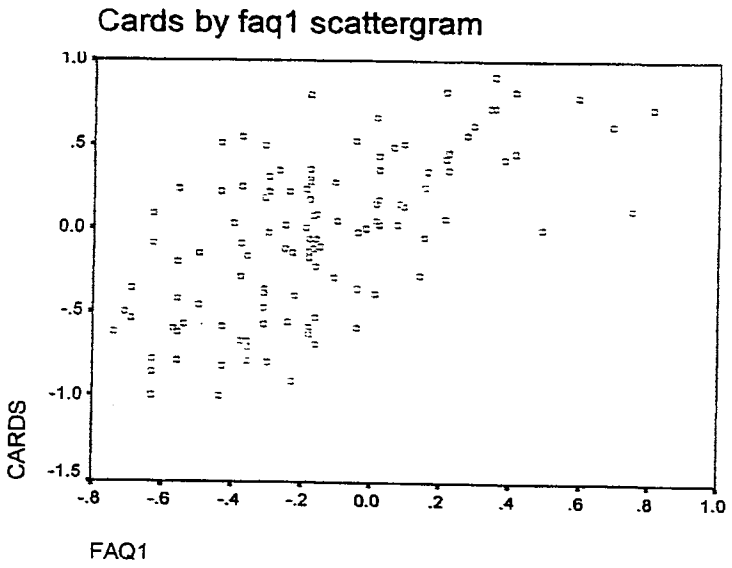
	Mean	Std. Deviation	N
CARDS	-.0423	.48096	115
FAQ1	-.1574	.32788	115

Correlations

		CARDS	FAQ1
CARDS	Pearson Correlation	1	.641**
	Sig. (2-tailed)	.	.000
	Sum of Squares and Cross-products	26.371	11.526
	Covariance	.231	.101
	N	115	115
FAQ1	Pearson Correlation	.641**	1
	Sig. (2-tailed)	.000	.
	Sum of Squares and Cross-products	11.526	12.256
	Covariance	.101	.108
	N	115	115

**. Correlation is significant at the 0.01 level (2-tailed).

Graph



APPENDIX K

RELIABILITY DATA

APPENDIX K

Reliability Test Re-Test Data

Identifier Number	Age	Male	Female	test1	re-test
1	18		F	-0.58	0.56
2	20		F	0.53	0.51
3	20		F	-0.24	-0.24
4	21		F	0.60	0.03
5	22		F	0.05	
6	22		F	0.42	0.53
7	22	M		0.14	-0.06
8	23		F	0.24	0.73
9	24		F	-0.38	-0.27
10	25		F	0.36	-0.18
11	25		F	-0.23	
12	25		F	0.53	0.44
13	26		F	0.02	0.44
14	26		F	0.03	0.05
15	27		F	0.91	0.8
16	28	M		0.03	-0.27
17	28		F	-0.21	-0.38
18	28		F	-0.29	0.35
19	28		F	-0.40	-0.2
20	28		F	-0.20	-0.58
21	29		F	-0.09	-0.1
22	29		F	-0.91	-1
23	31		F	0.35	0.36
24	34		F	-0.69	-0.89
25	36		F	0.73	0.82
26	36		F	0.82	1
27	37		F	0.14	0.71
28	37	M		-0.62	
29	38		F	0.03	-0.2
30	40		F	0.62	0.44
31	40		F	0.55	0.69
32	47		F	-0.06	-0.06
33	49		F	0.14	0.35

Correlations

Correlations

		VAR00001	VAR00002
VAR00001	Pearson Correlation	1	.836**
	Sig. (2-tailed)	.	.000
	N	30	30
VAR00002	Pearson Correlation	.836**	1
	Sig. (2-tailed)	.000	.
	N	30	30

**. Correlation is significant at the 0.01 level (2-tailed).

Correlations

Descriptive Statistics

	Mean	Std. Deviation	N
VAR00001	.1047	.45652	30
VAR00002	.1087	.52162	30

Correlations

		VAR00001	VAR00002
VAR00001	Pearson Correlation	1	.836**
	Sig. (2-tailed)	.	.000
	Sum of Squares and Cross-products	6.044	5.774
	Covariance	.208	.199
	N	30	30
VAR00002	Pearson Correlation	.836**	1
	Sig. (2-tailed)	.000	.
	Sum of Squares and Cross-products	5.774	7.891
	Covariance	.199	.272
	N	30	30

**. Correlation is significant at the 0.01 level (2-tailed).

APPENDIX L

IRB APPROVAL FORM

APPENDIX L

IRB Approval

Oklahoma State University Institutional Review Board

Date: Thursday, July 22, 2004

IRB Application No ED052

Proposal Title: Categorical Age Reflectors and Descriptor Sentiments (CARDS)

Reviewed and
Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved **Protocol Expires: 7/21/2005**

Principal
Investigator(s):

Robin G. Row
2822 West Elm
Enid, OK 73703

Robert Nolan
120 Willard
Stillwater, OK 74078

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

[X] The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact me in 415 Whitehurst (phone: 405-744-1676, colson@okstate.edu).

Sincerely,

Carol Olson

Carol Olson, Chair
Institutional Review Board

VITA #2

Robin Virginia Row

Candidate for the Degree of
DOCTOR OF EDUCATION

Dissertation: CATEGORICAL AGE REFLECTORS AND DESCRIPTIVE SENTIMENTS (CARDS)

Major Field: ADULT EDUCATION

Biographical:

Education: Graduated. from Ashville High School, Ashville, Alabama, May 1965; received a Bachelor of Science in Home Economics Education with a minor in Science from Auburn University, Auburn, Alabama, December 1968; received a Master of Art degree from Louisiana Tech University, with a major in Educational Counseling in Ruston, Louisiana, August 1976. Graduate Certificate of Gerontology, Oklahoma State University, Stillwater, Oklahoma, May 1997. Completed the requirements for the Doctor of Education degree with a major in Adult Education at Oklahoma State University, Stillwater, Oklahoma, December, 2004.

Personal Data: Born in Gadsden, Alabama, October 29, 1947 to Oscar and Robbie Fouts. Married Virgil "Buddy" Row February 14, 1980. Son, Patrick Alan May born September 13, 1972..

Experience: Elementary Education teacher at Hugley Elementary School, Lanett, Alabama 1969-1970. Activities and Social Services Director at Greenbrier Nursing Home, Enid, Oklahoma 1972-1973. Director of Educational Development at Billings Fairchild Center, Billings, Oklahoma, 1976-1978. Director of Psycho-Social Services at Billings Fairchild Center, Billings, Oklahoma, 1978-1980. Area Planner, Northern Oklahoma Development Association Are Agency on Aging, Enid, Oklahoma 1980-1983. Director of Housing, Community Development Support Association, Enid, Oklahoma 1983-1988. .Outreach Director, Retired and Senior Volunteer Program of Enid and North Central Oklahoma, Enid, Oklahoma 1988-present.

Professional Memberships: Partnerships for Aging, American Association of Retired Persons.