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UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

# COLLEGE AGE STUDENTS' ATTITUDES TOWARDS THE OLDER ADULT: GRANDPARENT FIT WITH OLDER ADULT STEREOTYPES AND THE CLOSENESS OF THE GRANDPARENT/GRANDCHILD RELATIONSHIP

A Dissertation

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements of the

degree of

Doctor of Philosophy

By

Paige Lisbeth Freeman
Norman, Oklahoma
2002

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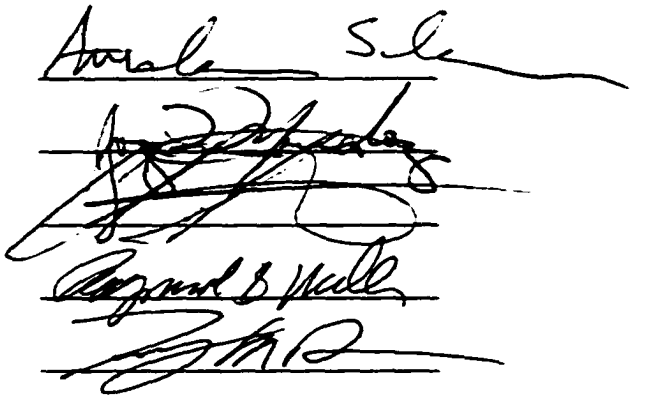
# COLLEGE AGE STUDENTS' ATTITUDES TOWARDS THE OLDER ADULT: GRANDPARENT FIT WITH OLDER ADULT STEREOTYPES AND THE CLOSENESS OF THE GRANDPARENT/GRANDCHILD RELATIONSHIP

A Dissertation APPROVED FOR THE
DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

BY



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**Abstract**

The purpose of this study was to examine college students' closest living grandparent "fit" with favorable older adult stereotypes, these students' thoughts about their grandparent, and the closeness of the grandparent/grandchild relationship, as these variables related to attitudes towards the older adult. Data collected from college students was obtained by way of two questionnaires, the Age Group Evaluation and Description Inventory and the Relationship Closeness Inventory, and a thought listing protocol. A relationship was found between grandparent fit with favorable older adult stereotypes and positive attitudes towards older adults, closeness of the grandparent/grandchild relationship and positive attitudes towards older adults, and college students' favorable thoughts about grandparents and positive attitudes towards older adults. Results indicated that the grandparents' perceived influence on the grandchild's life rather than actual amount of time spent with grandparent was most predictive of positive attitudes towards the older adult.

**College Age Students' Attitudes Towards the Older Adult: Grandparent Fit with Older Adult Stereotypes and the Closeness of the Grandparent/Grandchild Relationship**

Robert Butler coined the term "ageism" in 1969 (Butler, 1969), initiating an interest in attitudes towards older adults. The most obvious rationale for the study of ageism is that all humankind must age (Sorgman & Sorensen, 1984). In the literature review, the effects of ageism will be discussed with a section on the literature regarding combating ageism, most specifically, with intergenerational contact. Next, the importance of grandparents in our society will be reviewed with a special emphasis on closeness and contact in the grandparent/grandchild relationship. Methodological weaknesses in the literature regarding these terms will be discussed. A discussion of general theories of prejudice and attitude change will be presented with a special emphasis on Contact Theory (Allport, 1954). The importance of the aged outgroup member's (grandparent) fit with older adult stereotypes and the closeness of the grandparent/grandchild relationship will be presented as the basis for this study.

Ageism

The majority of the scholarly literature characterizes "older people" as age 65 or over (Kelchner, 1999; Williams & Giles, 1998). There has been an increase in the concern with ageism since the late 1970's, most notably as the result of the "aging of America" (Palmore, 1990). The fastest growing segment of the population is the elderly, with the fastest rate of growth being those over the age

of 85. In 1996, it was projected that in 2000, the percentage of Americans over the age of 65 would be 14%, which is triple the number of those persons over the age of 65 in 1900 (Barrow, 1996). According to the Census Bureau (2001), the actual percentage of those over the age of 65 in the year 2000 was 12.4 percent, a figure that nevertheless represents 34,991,753 people in the United States. Additionally, the number of Americans who will live long enough to receive social security benefits has been estimated at over 80% (Crews, 1990). As a result, government expenditures that benefit the elderly have grown in both absolute and relative (to other age groups) amounts (Hudson, 1993).

Myths Regarding the Aged

There are several myths regarding the aged in our society. One popular myth of aging is that people over 65 are "old" and in poor health, when in fact people of this age on average have several more years to live, and only 5% are in some type of an institution (acute hospital, convalescent hospital, psychiatric hospital or nursing home). This figure is not much higher than the rest of the population. The average age of admission to nursing homes is 80 yrs. old. While older adults may in fact have chronic, controlled health problems, they do not necessarily report being limited or bothered by them (Dychtwald, 1990).

That older adults are not as bright as young adults and that mental illness is common in this population are other myths of the aged in America. In fact, only 10% of Americans over the age of 65 show any significant memory loss, and

fewer than 50% of these 10% show any serious mental impairment (Dychtwald, 1990). While there is evidence that reaction time slows down and it may take longer to learn new information in old age, this is most likely related to other variables (e.g., illness, motivation, learning style, amount of education and lack of practice) (Poon, 1987). In regard to mental illness, according to George (1984), only 2% of those 65 and older are institutionalized with a psychiatric illness as the primary diagnosis.

Still other myths suggest that older adults are unproductive and isolated. In fact, no age group shows a consistent pattern of superior production (Dychtwald, 1990), and the majority of older workers can work as effectively as younger workers (Palmore, 1990). Furthermore, research suggests that the majority of elders are not isolated, and those who are (about 4 %) have a lifelong history of withdrawal (Kahana, 1987).

That older people have no sexual activity or sexual desire and those that do are abnormal is another myth of aging (Palmore, 1990). In fact, research suggests that older people usually have the capacity for sexual relationships into the seventh and eighth decades for healthy couples (Masters & Johnson, 1966), and that sex continues to play an important role in the lives of older adults until the late 70's (Palmore, 1990).

Another stereotype of the elderly is that they are generally poor. In fact, most elders have incomes well above the federal poverty level and, furthermore,

the average elder is more affluent than the average person under 65 (Palmore, 1990).

Finally, Dychtwald (1990) points to the myth that older people are homogeneous. He asserts that there is no age group that is more varied in terms of financial capabilities, physical abilities, personal styles, tastes and desires than the older population.

The Communication and Perpetuation of Ageism

The first director of the National Institute on Aging, Robert Butler (1969), coined the term "ageism" in 1969. He categorized it as another form of bigotry, similar to racism and sexism. More recently, Butler described it as " a process of systematic stereotyping and discrimination against people because they are old" (p.22, 1987). Palmore (1990) argued that two or three generations ago the majority of older adults did in fact fit the stereotype of the elderly. However, since this time, the life satisfaction, health, mental abilities, financial security and social activity of older adults have improved greatly.

The communication of ageism is prevalent in our society. Several media perpetuate ageism and negative attitudes towards older adults. These include the print media, television, and language. For instance, Vesperi (1993) described a type of print journalism called the "age page" that she categorized as cute and condescending, and Cirillo (1993) discussed words (rancid and rusty) that are used to insinuate the older adult is disintegrating. Citing several studies, Palmore

(1990) argued that there are several ways in which television supports ageism. First is by the dearth of elder characters, secondly by a sexist bias (fewer than 10% of those elderly people on television are female, and they are generally portrayed negatively), and thirdly older adults in nighttime television tend to be portrayed as "bad guys", prone to failure, and in general unhappy. Nuessel (1982) argued that the language we use to depict the elder is overwhelmingly negative. He cited several examples including "geezer", crotchety, codger, grump, spinster and biddy that are used to describe the elderly.

Humor and art also reflect attitudes about the aged in America. In jokes, cartoons, comic strips and birthday cards, predominate themes include decline of physical appearance, lessening of sexual ability, decline in physical and mental abilities, denial of aging, and loss of attractiveness (Osgood, 1996). Even art communicates ageism. Cohen and Kruschwitz (1990) analyzed over 300 examples of sheet music from the 19$^{th}$ and 20$^{th}$ centuries and determined that a significant majority present a negative view of older adults. Clark (1980) analyzed 120 poems by contemporary poets (aged 60 and over) and found that negativity towards old age was found in approximately 2/3 of those poems studied.

Institutions such as business, government and the human service professions perpetuate ageism. Not hiring or not promoting older workers is a form of ageism that institutions engage in. Various branches of government

perpetuate ageism in a number of ways, including the use of a higher federal poverty standard for the elderly, job training targeted for younger age groups, and targeting children and adolescents as the recipients of state welfare funds. Human service professionals contribute to ageist attitudes by not including aging issues in training material or classes. For example, geriatrics training is not required for most medical students although older adults will comprise a significant proportion of their patients (Robinson, 1994).

Effects of Ageism

The effects of ageism include personal costs, economic costs and social and cultural costs (Palmore, 1990). There are personal costs to not only older adults, but to the younger generations as well.

According to a poll conducted by the National Council on Aging, gerontophobia is ingrained in all of us, including the older adult population. According to this poll, the elderly was as misinformed and prejudiced about aging and the aged as were other age groups (Dychtwald, 1990). If it is true that older adults accept negative stereotypes of their age group, they may come to see themselves in negative terms or as marginal members of the culture, which can contribute to older adults feeling a sense of helplessness and powerlessness. (Osgood, 1996). In turn, they may behave in a matter consistent with the stereotypes, otherwise known as a self-fulfilling prophecy (Palmore, 1990). As a result they may become isolated and disengage from civic, social and other

groups (Osgood, 1996).

Ageism also exacts its toll on the younger generations. Ageism can enhance intergenerational conflict and encourage dread and fear of aging in the younger population. (Vasil & Wass, 1993). The cost to younger people can also include lost opportunities for wisdom and guidance that the elderly have to offer (Palmore, 1990).

Ageism also results in economic costs to our society. For instance, ignoring the productive and creative abilities of many older Americans will result in economic loss (Palmore, 1990).

Finally, ageism involves costs to society and the culture in general. Palmore (1990) argues that many traditional societies use the social support and cultural resources that the elderly provide. He suggests that many social problems (e.g., high crime rates, juvenile delinquency, labor shortages, and lack of adequate child care) of industrialized nations may be related to a lack of utilization of elder resources (Palmore, 1990).

Combating Ageism

Palmore (1990) offered several suggestions to combat ageism that include changing the structure (for instance the government, housing, the family and health care) and changing the ageist individual. The suggestions he included for changing the individual are through education, propaganda, and exhortation by way of slogans, religious organizations, and the media. A study by Ragan (2001)

suggested that education about the elderly population can change attitudes about the elderly, although these changes may not be maintained over time without reinforcement. Gordon and Hallauer's (1976) study of information impact on attitudes towards the aged suggested that while a course on adult development significantly altered attitudes towards the aged, the effect was more pronounced when education was combined with contact with the elderly.

Palmore (1990) additionally cited personal contact in which older and younger people cooperate to achieve goals as an effective way to reduce prejudice between the generations. This is consistent with contact theory (Allport, 1954), which will be discussed in the theory section. Many authors have suggested that a lack of intergenerational contact may be partly responsible for negative attitudes towards the elderly. For example, Ivester and King, (1977) suggested that one reason for negative attitudes towards the elderly is the high degree of age stratification in American society. Dooley and Frankel (1990) suggested that contact between the elderly and others in society may encourage people to confront their fears about aging, which will thereby reduce or replace negative attitudes about getting older and older adults. Over the past three decades, the number and variety of intergenerational programs established has increased. As such, pressure will increase for programmers to show the potential benefit of intergenerational projects (Vernon, 1999). Although it has been speculated the grandparent/grandchild relationship plays a formative role in attitudes towards the

elderly (Kahana & Kahana, 1970), the grandparent/grandchild relationship is often an overlooked opportunity for intergenerational contact.

Grandparent/Grandchild Relationship

Numerous studies have suggested the perceived importance of grandparents in their grandchildren's life (Wiscott & Kopera-Frye, 2000). Providing emotional support (McAdoo & McWright, 1994), a sense of continuity across time (Hagestad, 1985), sharing culture (Wiscott & Kopera-Frye, 2000) financial assistance (Silverstein & Marenco, 2001), and having an influence on value development (Roberto & Stroes, 1992) are but a few of the benefits to grandchildren cited in the literature.

There are an unprecedented number of grandparents in today's society. Hooyman and Kiyak (1988) reported that 94% of older adults who have children also have grandchildren. Moreover, recent research has found that due to lengthening longevity, increasing numbers of adult grandchildren are experiencing relationships with their grandparents (Hodgson, 1992; Uhlenberg, 1996). A study by the American Association of Retired Persons revealed that of people aged 65 and older, approximately 56% have at least one adult grandchild (Bengtson & Harootyan, 1994).

Great grandparents and step-grandparents are recent areas of interest in the literature. Szinovacz (1998) found that stepgrandparenting (especially in black populations) is an increasing phenomenon as the result of middle generation

and grandparental divorce. Another non-traditional grandparent role being explored in the literature is that of great grandparent. Nearly 50% of older adults are becoming great-grandparents (Roberto & Stroes, 1992), although they have been reported to have a remote relationship with their great-grandchildren in general (Doka & Mertz, 1988).

Contact in/Closeness and Strength of the Grandparent/Grandchild Relationship

In a study of grandparents in a rural southern state Spence et al. (2001) found that approximately 60% of their sample had frequent contact with their grandchildren. Similarly, Harwood (2000a) studied the frequency of college-aged grandchildren's communication with their grandparents and found that modes of communication were used fairly frequently (62% indicated they communicated several times a month or more). In this study, face to face and telephone communication was used more often than written media. He additionally found that frequency of communication was associated with relational quality.

Uhlenberg and Hammill (1998) found six factors make a difference when studying frequency of grandparent/grandchild contact with grandchild sets. The predictors included geographic proximity, number of grandchild sets, gender of the grandparent, lineage of the grandchild set, marital status of the grandparent and the quality of the relationship between grandparent and parent of the grandchild set.

A recent growth curve analysis of grandparent's perception of solidarity

with grandchildren over 23 years confirmed that contact and proximity to grandchildren decline at an accelerating rate as the relationship matures. Interestingly, although contact declines steadily, only over the first 14 years does affection decline, and then modestly reverses. This suggested that more mature, autonomous grandparent/grandchild relationships do not necessarily lower evaluations of satisfaction with these relationships (Silverstein & Long, 1998).

The strength of the grandparent/grandchild relationship has been found to be related to age, geographic proximity, the child-parent relationship, the parent-grandparent relationship, lineage (Hodgson, 1992), the extent to which the grandparent influences the grandchild's life (Brusonni & Boon, 1998), and the amount of shared activities (Kennedy, 1992a, 1992b). Previous research consistently suggested that grandchildren feel the most emotionally close with maternal grandparents in general and particularly maternal grandmothers (Chan & Elder, 2000, Hoffman, 1979, Matthews & Sprey, 1985, Mills et al., 2001). Kennedy (1991) found that young adult grandchildren cited enjoying the grandparent's personality and shared activities, experiencing the grandparent's appreciation, receiving individual attention and support, and seeing the grandparent as a role model or teacher as reasons for closeness with grandparents.

Methodological Weaknesses/Measuring Relationship "Closeness".

A review of the literature that refers to the construct of "closeness" in the grandparent/grandchild relationship reveals three major methodological

weaknesses. The first weakness is the interchangeable use of the concepts relationship quality, relationship strength, contact and closeness, with no clear delineation of what each concept is measuring or, further, any theoretical formulation of any of the above terms. For instance, Wiscott and Kopera-Frye (2000) measured relationship quality between adult grandchildren and their grandparents by using a four item scale that assessed the degree to which they "understood and felt close" to their grandparents. In a study by Kennedy (1992a, 1992b), closeness was measured using three 7-point Likert scale items that assessed how close grandchildren felt to their grandparent, how much value they place on the relationship, and the amount of time they spend with them. Harwood (2000a) measured "level of closeness" by 3 five point scales that asked how well participants get along with their grandparent, how emotionally close they feel to their grandparent, and how well they communicate with their grandparent.

The second methodological weakness when measuring closeness in the grandparent/grandchild relationship is the tendency to ask participants to fill out surveys based on the grandparent with whom they are the closest, with no empirical measure of how close they are (so as to provide meaningful comparisons). For example, both Brussoni and Boon (1998) and Kennedy (1991) asked participants to select their "closest grandparent" (or alternatively the grandparent whom they have the most contact with) as the basis for their responses and generally assume that all participants felt equally "close" to the

closest grandparents they selected.

More recent studies have asked participants to choose the grandparent they feel closest to and then attempt to operationalize this construct. However, these measures are often highly subjective with few items measuring the construct, thus calling into question the validity of the assessment, which is the third methodological weakness. For example, Harwood (2000b) used a single item measuring grandchildren's' perceptions of closeness with possible responses on a five-point continuum, ranging from very distant to very close. Hodgson (1992) determined grandchildren's perceived closeness by using a one-item 4-point scale ranging from not close at all to very close. Brussoni and Boon (1998) in an attempt to more precisely define the strength of their selected participants closest grandparental relationship included four key dimensions; emotional closeness, intimacy, importance and perceived influence. However, only eight items represented these four dimensions, with only one item pertaining to emotional closeness. More recently, Silverstein and Long (1998) and Mills, Wakeman and Fea (2001) measured "affectual solidarity" (perception of emotional closeness among individuals from different generations) with five items on a 6-point Likert scale. This trend can also be seen in the literature where grandparents are asked to rank closeness with their grandchildren. For example, Silverstein and Marenco (2001) on an affective/cognitive dimension of the grandparent role measured perceived emotional closeness with grandchildren on a 5 point scale where 1=not

at all close, and 5=extremely close.

## Theory

### Discussion of Terms

Prejudice has been defined as negative attitudes with respect to an outgroup (Hewstone & Greenland, 2000). Chumbler (1994) defined attitudes as an organized set of beliefs, values or evaluations held about a group of objects or a particular object. Vernon (1999) added feelings about an object(s) to this list. Moreover, stereotypes have been defined as a type of schema or knowledge structure about social groups (Richards & Hewstone, 2001) and as positive and/or negative generalized superficial beliefs about a group (Hooyman & Kiyak, 1988). The literature has recently had lengthy commentaries on the usefulness of distinguishing between stereotypes and attitudes. Authors have pointed to the evaluative (subjective) nature of an attitude (Eagly & Chaiken, 1993), whereas a stereotype is not typically thought of as evaluative. Vernon (1999) asserted that in the older literature, having a negative old age stereotype implied having negative feelings towards elderly individuals. However, stereotypes include both positive and negative images, and are not necessarily true. This is consistent with an information processing approach that asserts that stereotypes are used to organize information in the environment.

Although the constructs of both stereotypes and attitudes can be subjectively defined independently of each other, there is question as to whether

there is a measure that at this time can maintain their independence. Rather than absolute, the distinction appears to be relative. Although the criteria for item inclusion for attitude versus stereotype measurement is not the same, significant item overlap does occur, which makes it difficult to determine exactly what is being measured. Semantic differential measures (presenting several statements or descriptors that are known to be widely believed to be the characteristic of a target and asking respondents to indicate the degree to which they endorse each item.) are most useful when trying to assess the degree to which an already identified stereotype is endorsed (Knox, Gekoski, & Kelly, 1995). A relatively new semantic differential scale, the Aged Inventory, has attempted to measure both evaluative dimensions (for assessing attitude) and descriptive dimensions (for assessing stereotypes) (Knox et al., 1995).

General Theories of Prejudice and Attitude Change

Social learning theory holds that prejudice is learned through modeling (Katz, 1976; Kryzanowski & Stewin, 1985). As such, parent's attitudes towards different groups are theorized to have a significant impact on their children's attitudes (Ponterotto & Pedersen, 1993). In addition to overt attitudes and discrimination practices, the lack of interaction with different groups (covert) can also contribute to negative attitudes.

Social identity theory (Tajfel & Turner, 1986) posited that in the interest of a positive social identity, group members are motivated to seek out, make and

maintain biased intergroup comparisons as to maintain a positive social identity. These biases are moderated by the stability and legitimacy of intergroup status differences and the permeability of group boundaries.

Sherif's (1966) Realistic Group Contact Theory proposed that attitudes and behaviors of intergroups will reflect the degree of interdependence between groups. Where there are conflicts of interests (negative interdependence) it is predicted that there will be intergroup hostility, discrimination and prejudice. When the groups work towards the same goals (positive interdependence), the relationship will be categorized by friendship and tolerance. Experimental, quasi-experimental and naturalistic setting designs have all supported this theory (Brown, 2000; Brown, Condor, Matthews, 1986; Sherif, 1966). For instance, in the literature on ageism, authors point to a recent portrayal of older people who benefit from public entitlement programs disproportionately to their need (Binstock, 1983; Kotlikoff & Gokhale, 1996), and to a relatively small population of working age people paying high social security to benefit the older population (Chen, 1989) as an example of negative interdependence between generations.

Festinger's (1957) cognitive dissonance theory is a comprehensive theory of attitude change, which asserted that cognitive dissonance occurs when there is inconsistency between beliefs, attitudes or behaviors (elements). If the dissonance is uncomfortable enough for the person, the conflict will motivate the person to change one of the two elements to make them congruous or consonant.

Attitude change can be the result of altering these elements. All dissonant relationships between elements are not equally discomfiting. Festinger asserted that the magnitude of the dissonance is mediated by the importance or the value of the elements and by the proportion of relevant elements that are dissonant with the element in question. Therefore, one may hypothesize that the more emotionally fulfilling or close the grandparent /grandchild relationship, the less likely grandchildren will be to have negative attitudes towards the elderly. Interestingly, Boon and Brussoni (1998) found that grandchildren who are not close with their grandparents are just as unlikely to believe stereotypes about grandparents. This suggests that there are additional factors that account for attitude change, which contact theory addresses.

Contact Theory

Contact theory proposed that contact with particular members of an outgroup can have positive consequences for attitudes towards that outgroup as a whole. Allport (1954) specified four conditions for intergroup contact to be successful in combating negative attitudes: Equal status among group members in the situation, common goals, cooperation among groups, and the support of authority are all mentioned as necessary for successful intergroup contact. Early studies of the theory suggested that "acquaintance potential" is also important. Intergroup contacts whereby the members get to know each other as individuals are likely to produce sounder beliefs concerning the outgroup and this can reduce

negative attitudes and prejudice (Allport, 1954; Cook, 1978).

Generalization

The goal of intergroup contact is termed "generalization". Three types of generalization have been consistently suggested in the literature (Pettigrew, 1998). The first type of generalization is generalizations across situations. Pettigrew cited studies where improvement in attitudes towards an outgroup does not generalize across situations. For example, a WWII study showed that although white soldier's attitudes towards black soldiers improved after combat together, whites continued to favor separate military stores (Stouffer, Suchman, DeVinney, Star, & Williams, 1949).

The second type of generalization is generalization from the outgroup individual to the outgroup, which is the generalization with which this study is concerned. Hewstone and Brown (1986) postulated that this type of generalization will optimally occur when group membership (of the outgroup member) is salient (salient categorization strategy), because if there is low group saliency, the relationship will be conceptualized as interpersonal, not intergroup. Pettigrew (1998) discussed problems with salient categorization strategy, including the concept that people with similar interests seek each other out, and group membership will not be salient. Therefore, those who are most likely to have contact between groups will be atypical of their groups, therefore reducing generalization. However, Pettigrew offers widespread examples in society that

offer opportunities for contact between dissimilar groups, for instance, clerks and customers, or parents and children. Note that the grandparent/grandchild relationship would fall into this category. Alternatively, Brewer and Miller (1984) asserted that a generalization from the outgroup individual to the outgroup will be most successful when group salience is low (decategorization strategy). They argued that people with similar interests tend to have contact with each other, so intergroup contact will involve people who have similar interests and values, and further, that categorization is often associated with bias and discrimination.

In trying to resolve the conflicting aforementioned findings, Pettigrew (1998) proposed that the time sequence is critical, and that both strategies can be beneficial if they take place sequentially. When intergroup contact is initiated, diminished group salience can be important, and as the relationship matures, salient group categorization will be required for the effects to generalize.

The third type of generalization is generalization from the immediate outgroup to the other outgroups. Briefly, Pettigrew (1998) proposed this higher order process of generalization may be possible, but few studies have been conducted in this area, although an initial study shows generalization to a wide variety of outgroups (Pettigrew, 1997).

Meta-analysis of contact theory

In an exhaustive meta-analytic study of the intergroup contact theory

literature, Pettigrew (1998) raised interesting issues that are relevant to the current study. Pettigrew found field and archival studies, national surveys and laboratory experiments generally support the contact hypothesis. He addresses the question of selection bias in the cross sectional studies (prejudiced people avoid intergroup contact, therefore, the casual link between contact and prejudice is two way) but concluded that the reviewed studies that test both paths find that positive effects of between group friendship are stronger than those of the bias.

As a result of the findings of his meta-analysis, Pettigrew suggested that there are four processes of change occurring in intergroup contact. The first is learning about the outgroup, which has been the focus of most research. The second process is changing behavior; that is, revising our attitudes as the result of dissonance between old prejudices and new behavior. This process assumes that repeated contact itself leads to liking. The third process is termed "generating affective ties", by which emotion is seen as critical in intergroup contact. Both positive and negative emotions can be experienced with intergroup contact; as positive emotions will more likely lead to attitude change, and for this reason, he cites intergroup friendships as a pivotal research topic. The last process presented is a reappraisal of the ingroup. By gaining a new perspective of the world from the outgroup member, ingroup member's view of the ingroup will be reshaped. This is influenced by having more contact with the outgroup, which results in having less contact with the ingroup.

Finally, Pettigrew (1998) suggested a progressive (though not necessarily linear) model in which essential and facilitating situational factors (suggested by Allport and others) predicate initial contact or decategorization (optimally leads to liking without generalization), then established contact or salient categorization (optimally leads to reduced prejudice with generalization) and finally unified group or recategorization (highlights similarities between groups and obscures the we/they boundary) which ultimately leads to maximum reduction of prejudice (but is not usually attained). He described the stages as overlapping, and reminded the reader that the groups can break off contact at any time. He suggested that intergroup friendship is especially potent to generalization because of it's potential to invoke all four mediating processes over time. He argued that long term relationships rather than initial acquaintanceship lead to more constructive contact (Pettigrew, 1998). The grandparent/grandchild relationship, although not necessarily a friendship, also has the possibility of evoking all four processes over time.

In sum, in addition to Allport's initial conditions for successful intergroup contact (equal group status among group members in the situation, common goals, cooperation among groups, and authority support) (Allport, 1954), the work of several authors suggested that in order to be effective in changing negative attitudes towards an outgroup, outgroup members must initially be seen as non-typical of his/her group (decategorization or low group salience) (Brewer &

Miller, 1984), then as the relationship matures as typical (salient categorization or high group salience) (Hewstone & Brown, 1986) to improve attitudes (Pettigrew, 1998).

Contact Theory and Ageism

Many studies have been conducted assessing how intergenerational contact impacts attitudes towards older adults and these studies yield contradictory results. Several studies suggested that intergenerational contact is related to significant positive changes in attitudes towards older adults (Caspi, 1984; Murphy-Russell et. al., 1986, Peacock & Talley, 1984), whereas others have reported neutral or negative results (Doka, 1985; Eddy, 1986; Fletcher, Lerner, & Coleman, 1971; Gordon and Hollanauer, 1976). In the majority of the aforementioned studies, little effort was made to control for variance in the interventions. Another methodological weakness of some of these studies (e.g., Fletcher et al, 1971; Gordon & Hollanuer, 1976) is that the intergenerational contact involved the aged who had physical or financial limitations that correspond to negative attitudes towards the aged (Dooley & Frankel, 1990; Pettigrew, 1998).

More recently, studies have assessed the quality of contact between the generations as an important variable regarding attitudes towards the aged. For instance, Dooley & Frankel (1990) found that the perceived quality of the intergenerational experience (e.g., a "visitor friendly" type of program) had a

significant impact on improving Canadian secondary school students' attitudes towards the aged. Similarly, based on studies of racism, Palmore (1990) hypothesized that personal contacts between the generations that involve competition and conflict may actually reinforce prejudice.

Attitudes Towards Older Adults and Grandparental Contact.

Harwood (2000a) suggested that the grandchild/grandparent relationship is important because it may be the location in which the most communication between the old and young occurs, and it offers opportunity for frequent and intimate contact between the ages, contact that may be rare in other situations (Harwood & Lin, 2000). A review of the literature indicates that although intergenerational contact is often cited as a way to combat negative attitudes towards the elderly, grandparental contact appears to have been overlooked with a few notable exceptions. One such study, through a multiple regression analysis of over 1500 adults from the ages of 18-90, found that young adults were the least supportive (of all age groups) of elderly entitlement benefits, although early contact with grandparents moderated young adults (aged 18-24) opposition to public support for the elderly (Silverstein & Parrott,1997). Another study by Hillman and Stricker (1996) found that presence of contact with at least one grandparent was predictive of more permissive attitudes of elderly sexuality, and further, that greater than average perceptions of closeness was also an important predictor of attitudes towards adult sexuality. Finally, an experimental study of

200 Australian adolescents (aged 13-14) attitudes towards the elderly as a function of the relationship with their grandparents concluded that the manipulated quality of the grandparent/grandchild visit was positively related to higher attitudinal scores towards the elderly (Thomas & Hallebone, 1994).

## Summary

Attitudes towards older adults and ageism have been mentioned in the literature since 1969, although they have become increasingly important topics as the result of the aging of America. Several methods of combating ageism have been discussed in the literature, and in keeping with contact theory, increased intergenerational contact appears to be helpful in improving attitudes towards older adults. Several essential and facilitating conditions for intergenerational contact to be successful in combating negative attitudes towards older adults have been suggested. The older adult must initially be seen as non-typical of his or her age group, and as the relationship matures as typical of his/her own age group. The intergroup contact must have acquaintance or friendship potential, and Pettigrew (1998) suggests that positive feelings for the outgroup member will more likely lead to positive attitudes towards the outgroup. It has been suggested that the grandparent/grandchild relationship is important in that it is the relationship by which most contact between the generations takes place, contact that may be rare in other situations (Harwood & Lin, 2000). The purpose of this study was to investigate the relationship between college students' attitudes

towards older adults and several dimensions of the grandparent/grandchild dyad. Specifically, this study examined college students' grandparent's "fit" with favorable older adult stereotypes, college students' thoughts about their grandparent, and the closeness of the grandparent/grandchild relationship, as they are related to attitudes towards the older adult.

Hypotheses

**Hypothesis 1:** Based on contact theory, there will be a positive relationship between college students' favorable attitudes towards older adults and their grandparent fit (as perceived by the grandchild) with favorable older adult stereotypes.

**Hypothesis 2:** Based on both cognitive dissonance and contact theory, there will be a positive relationship between college students' favorable attitudes towards older adults and the closeness (as perceived by the grandchild) of the grandparent/grandchild relationship.

**Hypothesis 3:** Based on both cognitive dissonance and contact theory, there will be a positive relationship between college student's favorable thought-listing of their grandparents and their positive attitudes towards older adults. This relationship will be moderated by the closeness of the grandparent/grandchild relationship.

## Method

### Participants

Participants were recruited from an entry-level career development course and an entry-level psychology course at a large Midwestern University. Subjects were notified of the study and received research credit to partially meet their class requirement. Eligibility for inclusion in the study was based on participants having at least one living grandparent. The sample consisted of 99 undergraduates, of which 23 were male (23%) and 76 were female (77%). All but one respondent was between the ages of 17 and 23, and the racial/ethnic composition of the sample was as follows: 75.8% White, 9.1% Native American, 5.1% African American, 3.0% Hispanic, 4.0% Asian, and 3.0% listed "other". 57% of the participants listed their closest living grandparent as their maternal grandmother, 17% listed their paternal grandmother, 10% their maternal grandfather, 9% their paternal grandfather, 3% their great-grandmother, 2% their step grandfather, and 1% a grandmother in law. The respondents reported a range of 5-23 years that they had known their closest grandparent with a mean of 19 years known. Finally, 74% of the respondents reported that their grandparents were between the ages of 65 and 80, while 12% reported that their grandparents were younger than 65 and 13% reported their grandparents were older than 80. Refer to Table 1 for further description of the sample's demographic characteristics.

## Instruments

### The Age Group Evaluation and Description Inventory (AGED).

The AGED Inventory (Knox et al., 1995) is an instrument that attempts to measure age stereotypes and attitudes towards age specific targets. In the development of the AGED, 600 undergraduates were asked to rate a younger, middle aged, or older target on each of 96 polar adjective pairs that were picked because they were known to be highly descriptive (stereotypes) or evaluative (attitudes) of the differences between differing age groups. The respondents were then divided into an exploratory and a confirmatory sample. Factor analytic techniques were applied separately to the subsets of item pairs that were defined empirically as either evaluative or as descriptive. Standard factor analytic procedures were then conducted on the evaluative/descriptive dimensions. The AGED is comprised of 28-item adjective pairs. The items are polar adjectives, scored from one (negative) to seven (positive). Examples of the pairs include: Generous/ Selfish (Goodness factor), Hopeful/Dejected (Positiveness factor), Sexy/Sexless (Vitality Factor) and Modest/Boastful (Maturity factor). Two factors (Goodness and Positiveness) each consisting of seven items, can be combined to assess evaluative dimensions or attitudes towards age groups (criterion variable), and the remaining two factors (Vitality and Maturity) each consisting of seven items, can be combined to obtain a descriptive dimension or stereotypes towards age groups (predictor variable). The aforementioned factor

structures were replicable across samples, target ages, and experimental designs (coefficients of congruence range from .81-.99). Test-retest (6 month) reliability estimates for the four factors yield results between .57 (Positiveness factor) to .75 for the Vitality factor.

The Relationship Closeness Inventory (RCI). The RCI (Berscheid, Snyder, & Omoto, 1989) is an assessment of relationship closeness grounded on the theory that closeness is a high interdependence of two people's activities. It is comprised of a total score and 3 subscales that include frequency, diversity, and strength. Frequency is a measure of the number of hours spent with the target person in the last week, and this subscale can range from 0 to 1200. Diversity is a frequency scale (yes/no), which assesses the number of activity domains the pair has engaged in over the past week, and ranges from a score of 0 to 38. Strength is a Likert type subscale that includes 34 items that purportedly measure how influenced one person is by the other. Values of this scale range from 34 to 238. Each of the subscales can be converted into a Scaled Score of 1-10. An overall closeness score can then be determined by adding all of the scaled scores with a possible total score of 3-33, with increasing scores accounting for closer relationships. Highly significant differences were found on scores of close and not-close relationships, which suggest that it is a valid way of discriminating the closeness of an individual's relationships. Test-Retest reliability at 3-5 weeks for frequency was .82, for diversity-.61, and for strength, .81.

Thought-Listing Technique (TLT). The TLT (Cacioppo, Glass, & Merluzzi, 1979) is based on the assumption that content analyzing individual's reported thoughts, ideas, images and feelings can reveal the psychological significance of their thoughts and feelings. Typically, after listing thoughts, participants rank the nature of the listed thoughts. The TLT has been used to explore the cognitions of individuals with a psychological disorder and to rate confederates acting as if they had a psychological disorder. It has also been used as a dependent variable for testing the efficacy of therapeutic techniques, validating assessment tools, exploring the process of therapy, developing therapeutic strategies, and as a basis for developing structured self-report scales. Evidence for the criterion related validity of thought listing has been supported in the literature on social anxiety and social phobia, in that level of subjective discomfort and lower self-evaluations co-vary with negative thoughts. Various groups known to vary in their level of shyness, anxiety or phobia have provided support for the concurrent validity of the instrument (Cacioppo, von Hippel & Ernst, 1997).

Procedures

Participants were recruited from introductory career development and psychology classes at a large Southwestern University during the fall semester of 2001 and spring semester of 2002. Each participant was asked to voluntarily sign an informed consent form and complete a demographic questionnaire, the Aged Inventory (once for adults 65 and older and once for their "closest grandparent"),

the RCI (with their previously rated "closest grandparent" as reference), and complete the thought listing protocol. They were asked to fill out the AGED Inventory first with the directions, "How would you characterize the average person who is aged 65 or older?" Next they were asked to think of their closest grandparent when filling out the RCI. They were next asked to fill out the AGED Inventory with the instructions, "How would you characterize your closest grandparent?" Participants were then asked to fill out the thought listing protocol for older adults and their closest grandparent. Participants were asked to generate thoughts or ideas (for three minutes each) about older adults and their closest grandparent. They were then asked to go back to their lists and mark their individual thoughts as positive, negative or neutral. Finally, participants were asked to rank how influential their closest grandparent has been in their lives with 1=not influential at all and 7=very influential. The above order was determined to have the least chance of contamination effects.

## Results

### Reliability and Validity Analysis

The Age Group Evaluation and Description Inventory (AGED): The analysis of the AGED inventory indicated statistical limitations. In the authors' effort to develop a measure that distinguishes between evaluative and descriptive items (attitudes and stereotypes), they incorrectly divided the AGED inventory into these parts without using factor analysis. After the division of the initial items

they resumed using correct test development procedures. When a factor analysis was run on initial items during the course of the current study, the evaluative and descriptive measures loaded together, revealing no distinction between the two sets of items. When the evaluative and descriptive items were split into sets and then a two-factor solution was computed (as the AGED authors did), the results were more consistent with AGED authors results. The Cronbach's alpha ranged from .63 on the vitality subscale with older adults as the referent to .86 on both the goodness and positiveness subscales with the closest grandparent as the referent. Four of the eight subscales (three of which used older adults as the referent) had a Cronbach's alpha of less than .70, a value that Nunnaly (1978) indicated to be an acceptable reliability coefficient, although lower values have been used in the literature.

The Relationship Closeness Inventory (RCI): The reliability and validity analysis results of the RCI were generally very good. The exception was low sum of squared coefficients (sum of squared loadings). The factor coefficients (factor loadings) were high with the one factor solution being the strongest. Cronbach's alpha was excellent at .92.

Respondents were additionally asked to subjectively rate the amount of influence their closest grandparent has had on their life using a scale in which 1=not at all influential and 7=very influential, in order to assess the validity of the influence factor of the RCI. The Pearson and Spearman results were very similar;

therefore, the Pearson results could be used. The Pearson coefficient for the two scales was .65, indicating reasonably close correspondence between the RCI Influence scale and the respondents' subjective ratings of the influence of their closest grandparents on their lives. Thus, the validity with the influence factor is reasonably good.

Thought-Listing Technique (TLT): The components of the TLT (total positive, total neutral, and total negative thoughts about grandparents) correlated together with low to moderate correlations (ranging from a r= -.36 for negative and positive thoughts to a r= -.11 for neutral and positive thoughts), which seems reasonable.

## Hypotheses Analyses

### Hypothesis 1

To address hypothesis 1, a Pearson correlation coefficient and Spearman coefficient was used to analyze the relationship between college students' positive attitudes towards older adults (total AGED with older adults as the referent) and their grandparent fit with favorable older adult stereotypes (total AGED with closest grandparent as the referent). Because the Spearman and Pearson results were nearly identical, the Pearson results could be used. These results strongly confirmed Hypothesis One. The Pearson coefficient approximately equaled Cohen's (1988) definition of a large effect size and was statistically significant, r= .61, p = .000.

Hypothesis 2

To address hypothesis 2, a single Pearson R was used to analyze the relationship between college students' positive attitudes towards older adults (total AGED with older adults as the referent) and the closeness of the grandparent/grandchild relationship (total RCI score). The correlation was statistically nonsignificant (r=.20, p=.05). Thus, there was not a significant positive relationship between college students' attitudes towards older adults and the overall closeness of the grandparent grandchild relationship.

Multiple regression was the next analysis conducted. The criterion variable was the AGED total score, obtained with older adults as the referent. Predictors were RCI Strength, RCI Frequency, and RCI Diversity. Regarding collinearity, variance proportions indicated shared variance on one dimension for Frequency and Diversity. This dimensions had small eigenvalues of .275, but the corresponding condition index was also small at 3.357. Thus, collinearity was not substantial and that the analysis could proceed.

The multiple correlation was $R = .26$. The corresponding $R2$ was .07, indicating that 7% of the variation in AGED total scores could be accounted for by variation in the RCI subscores. When standard errors were considered, Strength was most predictive in the sample but produced statistically non-significant results. Frequency and Diversity were less predictive and also produced statistically nonsignificant results. See Table 2 for these results.

The analysis was repeated using sets of two independent variables. Regarding collinearity, variance proportions did not indicate shared variance on one dimension for any independent variables. Thus, collinearity was again not substantial and that the analyses could proceed.

The multiple correlations for the three models were $R = .30$, $R = .25$, and $R = .18$. The corresponding $R2$s indicated that 7%, 6%, and 3% of the variation in AGED total scores could be accounted for by variation in the RCI subscores. When standard errors were considered using two sets of variables, Strength was most predictive in the sample and produced statistically significant results. Frequency and Diversity were less predictive and produced statistically nonsignificant results. See Tables 3-5 for these results.

Hypothesis 3

To test Hypothesis Three, multiple regression was again conducted. The criterion variable was the AGED total score, obtained with older adults as the referent. The predictor was grandparent positive TLT scores, corrected for TLT total scores. Collinearity among independent variables was not a concern, because the analysis included only one independent variable.

The multiple correlation was $R = .56$. The corresponding $R2$ was .31, indicating that 31% of the variation in AGED total scores could be accounted for by variation in positive TLT scores. When the standard error was considered, statistics for positive TLT scores were substantial and statistically significant.

These results confirmed the first part of Hypothesis Three. See table 3 for results.

In a second regression analysis for the first part of Hypothesis Three, RCI Total Standard Scores were an additional predictor. Regarding collinearity, variance proportions did not indicate shared variance for the two predictors. Thus, the analysis could proceed. The multiple correlation was as large as in the previous analysis, $R = .56$ when rounded to two digits. The corresponding $R2$ was .32, indicating that 32% of the variation in AGED total scores could be accounted for by variation in positive TLT scores. When the standard error was considered, the statistics for positive TLT scores alone were substantial and statistically significant. These results again confirmed the first part of Hypothesis Three. Table 4 shows these results.

In separate regression analyses for the second part of Hypothesis Three, the three RCI components replaced RCI Total Standard Scores as the additional predictors. Regarding collinearity, variance proportions did not indicate shared variance for the predictors. Thus, the analyses could proceed. As before, the multiple correlation was as large as in previous analyses. With RCI Influence controlled, $R = .57$, and the corresponding R2 indicated that 32% of the variation of AGED total scores could be accounted for by variation of positive TLT scores. With RCI Time Spent controlled, the same results occurred, $R = .57$, with 32% of the variance potentially accounted for. With RCI Diversity controlled, $R = .56$, again with 32% of the variance potentially accounted for. When the standard error

was considered, only the positive TLT scores produced substantial or statistically significant regression coefficients or *t* values. These results disconfirmed the second part of Hypothesis Three. Tables 5-7 show these results.

## Discussion

Based on contact and cognitive dissonance theory, the present study was designed to examine how college students' grandparent fit with favorable older adult stereotypes, the closeness of the grandparent/grandchild relationship and college students' favorable thoughts about grandparents are associated with college students' positive attitudes towards older adults. Limitations of the AGED inventory prevented the specific investigation of grandparent fit with stereotypes, as the AGED in this study was best explained by a one factor attitude solution. A strong relationship was found between college student's favorable attitudes towards their closest grandparent and their favorable attitudes towards older adults. Pettigrew (1998) suggested that emotion is critical in intergroup contact, and that positive emotions for an outgroup member will more likely lead to positive attitudes towards an outgroup than will negative emotions. Assuming an association between positive attitudes towards grandparents and high quality relationships, this is consistent with recent studies pointing to the importance of the quality of the intergroup interaction in the promotion of positive attitudes towards an outgroup (Dooley & Frankel, 1990, Palmore, 1990).

An unexpected finding of this study was that there was not a significant

relationship between respondent's report of overall closeness with their closest grandparent and their favorable attitudes towards older adults. It does appear from the results of this study, however, that the strength of the grandparent/grandchild relationships as measured in terms of the perceived influence of grandparents on their grandchild's life is predictive of positive attitudes towards older adults. The amount of time spent with a grandparent and the number of different activities engaged in were less predictive and not statistically significant. This is consistent with Silverstein and Long's (1998) findings that as the grandparent/grandchild relationship matures, contact declines, and Brusonni and Boon's (1998) findings that the extent to which a grandparent influences a grandchild's life is related to the strength of the relationship. It appears that the amount of time spent and type of activity engaged in with grandparents are not as predictive of whether college aged grandchildren will have positive attitudes towards older adults as is the perceived current and future impact of the grandparents on the grandchild's life.

Very similar to the results of hypothesis one, there was a substantial relationship between respondent's favorable thought listing of their grandparents and their favorable attitudes towards older adults. This was not surprising as a correlation matrix revealed high ($r$=.486 to .685, $\alpha$=.00) positive correlations between positive thought listing and the AGED subscales and high (-.690 to -.523, $\alpha$=.00) negative correlations between negative thought listing and the AGED

subscales. It was surprising, however, to find that the association between respondent's favorable thought listing of their grandparents and their favorable attitudes towards older adults was not moderated by the perceived closeness of the grandparent/grandchild relationship. This suggests that college aged students who have favorable thoughts about their closest grandparent will have positive attitudes towards older adults in general regardless of the closeness of the grandparent/grandchild relationship. This is consistent with Silverstein and Long's (1998) findings that although contact with (a component of the RCI measure of closeness) grandparents' declines steadily as the relationship matures, affection declines only over the first 14 years and then reverses modestly. This conclusion assumes that favorable thought listing indicates feelings of affection for the grandparent.

Limitations

The findings from this study must be considered within the context of several methodological limitations. The use of a non-randomized sample of university students as participants limits the generalizability of the present findings, as does a disproportionately female sample (77%). The most obvious limitation of this study is the statistical limitations of the AGED inventory discussed in the results section, and there are serious doubts about the usefulness of this instrument for making a distinction between attitudes and stereotypes. Although the authors should be commended for their attempt to distinguish

between attitudes and stereotypes, the psychometric properties of their instrument were not found to be sound in this study. It should be kept in mind that this study only examined the closest grandparent relationship, and therefore the influence of other grandparents on the results of the study are unknown. Finally, as with any correlational study, the findings reported only indicate relationships between variables and no causation should be inferred.

Conclusions and Future Directions

Despite the aforementioned limitations, results of the study suggest that college students' favorable attitudes about their closest grandparent, college students' favorable thoughts regarding their closest grandparent are positively associated with college students' positive attitudes towards older adults. The literature has recently listed several effects of ageism including personal, economic, social and cultural costs (Palmore, 1990), and the possibility that intergenerational contact may reduce or replace negative attitudes towards older adults (Dooley & Frankel, 1990). In an attempt to increase positive attitudes towards older adults, the number of intergenerational programs has increased (Vernon, 1999), along with expenditure for these programs. The grandparent/grandchild relationship has often been overlooked in the literature as an opportunity for intergenerational contact. A few studies (Hillman & Stricker, 1996, Silverstein & Parrott, 1997, Thomas & Hallebone, 1994), suggest that contact with grandparents may be important in encouraging positive attitudes

towards older adults. Interestingly, this study found that in regard to the closeness of the grandparent/grandchild relationship, the strength or perceived influence of the grandparent on the grandchild's life was most predictive of positive attitudes towards older adults than the actual amount or type of current contact with their grandparent. The impact of previous contact would be an interesting topic for future literature. Furthermore, the results of the current study do not at this time support the use of the AGED inventory because factor analysis did not support the psychometric independence of the constructs attitudes and stereotypes, although future research would greatly benefit from a similar measure with sound psychometric construction.

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Table 1

Demographic Features of Grandchildren In the Sample (N = 99)

| | | Frequency | Percent |
|---|---|---|---|
| Age | | | |
| | Range = 17-47 | | |
| | Mean = 19.57 | | |
| | SD = 3.03 | | |
| Years Known Grandparent | | | |
| | Range = 5-23 | | |
| | Mean = 19.11 | | |
| | SD = 2.15 | | |
| Gender | | | |
| | Female | 76 | 76.8% |
| | Male | 23 | 23.2% |
| Race/Ethnicity | | | |
| | Caucasian | 75 | 75.8% |
| | Black | 5 | 5.1% |
| | Hispanic | 3 | 3.0% |
| | Asian | 4 | 4.0% |
| | Native-American | 9 | 9.1% |
| | Other | 3 | 3.0% |

Continuation of Table 1

Demographic Features of Grandparent In the Sample (N = 99)

| | Frequency | Percent |
|---|---|---|
| Age | | |
| Under 65 | 12 | 12.2% |
| 65-70 | 28 | 28.6% |
| 70-75 | 24 | 24.5% |
| 75-80 | 21 | 21.4% |
| 80-85 | 6 | 6.1% |
| Over 85 | 7 | 7.1% |
| Not Reported | 1 | 1.0% |
| Relationship to Grandchild | | |
| Maternal Grandmother | 56 | 57.1% |
| Maternal Grandfather | 10 | 10.2% |
| Paternal Grandmother | 17 | 17.3% |
| Paternal Grandfather | 9 | 9.2% |
| Step Grandfather | 2 | 2.0% |
| Grandmother-in-Law | 1 | 1.0% |
| Great Grandmother | 3 | 3.1% |
| Not Reported | 1 | 1.0% |
| Race/Ethnicity | | |
| Caucasian | 79 | 79.8% |
| Black | 4 | 4.0% |
| Hispanic | 4 | 4.0% |
| Asian | 4 | 4.0% |
| Native-American | 4 | 4.0% |
| Other | 4 | 4.0% |

Table 2

Summary of Regression Analysis for RCI Variables
Strength, Frequency and Diversity Predicting Positive Attitudes
Towards Older Adults (N=99)

| Variable | B | SE | Beta | t | p |
|---|---|---|---|---|---|
| RCI Strength | .105 | .053 | .208 | 1.969 | .052 |
| RCI Frequency | .012 | .014 | .103 | .864 | .390 |
| RCI Diversity | .089 | .589 | .018 | .152 | .880 |

Table 3

Summary of Regression Analysis for RCI Variables Strength and Frequency Predicting Positive Attitudes Towards Older Adults (N=99)

| Variable | B | SE | Beta | t | p |
|---|---|---|---|---|---|
| RCI Strength | .107 | .052 | .212 | 2.070 | .041 |
| RCI Frequency | .013 | .012 | .112 | 1.093 | .277 |

Table 4

Summary of Regression Analysis for RCI Variables Strength and Diversity Predicting Positive Attitudes Towards Older Adults (N=99)

| Variable | B | SE | Beta | t | p |
|---|---|---|---|---|---|
| RCI Strength | .110 | .053 | .217 | 2.067 | .041 |
| RCI Diversity | .345 | .508 | .071 | .679 | .499 |

Table 5

Summary of Regression Analysis for RCI Variables Frequency and Diversity Predicting Positive Attitudes Towards Older Adults (N=99)

| Variable | B | SE | Beta | t | p |
|---|---|---|---|---|---|
| RCI Frequency | .015 | .014 | .126 | 1.047 | .298 |
| RCI Diversity | .356 | .581 | .074 | .613 | .541 |

Table 6

Summary of Regression Analysis for Positive Grandparent TLT Scores Predicting Positive Attitudes Towards Older Adults (N=99)

| Variable | B | SE | Beta | t | p |
|---|---|---|---|---|---|
| Positive TLT | 39.124 | 5.971 | .556 | 6.553 | .000 |

Table 7

Summary of Regression Analysis for Positive Grandparent TLT Scores and RCI Total Standard Scores Predicting Positive Attitudes Towards Older Adults (N=99)

| Variable | B | SE | Beta | t | p |
|---|---|---|---|---|---|
| Positive TLT | 37.833 | 6.064 | 5.38 | 6.239 | .000 |
| RCI Total | .260 | .225 | .100 | 1.156 | .250 |

Table 8

Summary of Regression Analysis for Positive Grandparent TLT Scores and RCI Strength Scores Predicting Positive Attitudes Towards Older Adults (N=99)

| Variable | B | SE | Beta | t | p |
|---|---|---|---|---|---|
| Positive TLT | 37.202 | 6.090 | .529 | 6.108 | .000 |
| RCI Strength | .062 | .044 | .123 | 1.425 | .157 |

Table 9

Summary of Regression Analysis for Positive Grandparent TLT Scores and RCI Frequency Scores Predicting Positive Attitudes Towards Older Adults (N=99)

| Variable | B | SE | Beta | t | p |
|---|---|---|---|---|---|
| Positive TLT | 38.394 | 5.965 | .546 | 6.436 | .000 |
| RCI Frequency | .014 | .010 | .118 | 1.391 | .168 |

Table 10

Summary of Regression Analysis for Positive Grandparent TLT Scores and RCI Diversity Scores Predicting Positive Attitudes Towards Older Adults (N=99)

| Variable | B | SE | Beta | t | p |
|---|---|---|---|---|---|
| Positive TLT | 38.511 | 5.999 | .547 | 6.420 | .000 |
| RCI Diversity | .423 | .412 | .087 | 1.026 | .307 |

# Appendix A

## Prospectus

## College Age Students' Attitudes Towards the Elderly: A Study of Grandparent Stereotypicality and Closeness of the Grandparent/Grandchild Relationship

### Introduction

Attitudes towards older adults has been a topic of the literature since Robert Butler coined the term "ageism" in 1969 (Butler, 1969). The most obvious rationale for the study of ageism is that all humankind must age (Sorgman & Sorensen, 1984). In the literature review, ageism will be discussed with a section on the literature regarding combating ageism, most specifically, with intergenerational contact. Next, the role and importance of grandparents in our society will be reviewed with a special emphasis on closeness and contact in the grandparent/grandchild relationship. Methodological weaknesses in the literature regarding these terms will be discussed. A discussion of general theories of prejudice and attitude change will be presented with a special emphasis on Contact Theory (Allport, 1954). The importance of aged outgroup member's (grandparent) perceived group salience, stereotypicality and the closeness of the grandparent/grandchild relationship will be presented as the basis for this study.

#### Ageism, Stereotypes of and Attitudes Towards Older Adults

The first director of the National Institute on Aging, Robert Butler (1969), coined the term "ageism" in 1969. He categorized it as another form of bigotry,

similar to racism and sexism. More recently, Butler described it as " a process of systematic stereotyping and discrimination against people because they are old" (p.22, 1987). Palmore (1990) argued that two or three generations ago the majority of older adults did in fact fit the stereotype of the elderly. However, since this time, the life satisfaction, health, mental abilities, financial security and social activity of older adults have improved greatly.

The majority of the scholarly literature characterizes "older people" as age 65 or over (Kelchner, 1999; Williams & Giles, 1998). There has been an increase in the concern with ageism since the late 1970's, most notably as the result of the "aging of America" (Palmore, 1990). The fastest growing segment of the population is the elderly, with the fastest rate of growth being those over the age of 85. In 1996, it was projected that in 2000, the percentage of Americans over the age of 65 would be 14%, which is triple the number of those persons over the age of 65 in 1900 (Barrow, 1996). Additionally, the number of Americans who will live long enough to receive social security benefits has been estimated at over 80% (Crews, 1990). Because of this, government expenditures that benefit the elderly have grown in both absolute and relative (to other age groups) amounts, which has lead to attitudes towards this population as "greedy" and overindulged (Hudson, 1993).

Myths regarding the Aged

One popular myth of aging is that people over 65 are "old". In fact, at the

age of 65, males have an average of 11 more years to live, and females an average of 19 more years (Dychtwald, 1990).

Another myth is that most older people are in poor health. Only 5% of people over the age of 65 are in some kind of institution (acute hospital, convalescent hospital, mental hospital or nursing home). This figure is not much higher than the rest of the population. The average age of admission to nursing homes is 80 yrs. old. A study of young people indicated that they believed that 50% of the elderly report serious health problems. In reality, the true figure is closer to 20%. While older adults may in fact have chronic, controlled health problems, they do not necessarily report being limited or bothered by them (Dychtwald, 1990). Furthermore, previous studies have suggested that elders actually have fewer acute illnesses than do younger persons (National Center for Health Statistics, 1978).

That older adults are not as bright as young adults is another myth of the aged in America. In fact, only 10% of Americans over the age of 65 show any significant memory loss, and fewer than 50% of these 10% show any serious mental impairment (Dychtwald, 1990). A study by Langer (1994) suggested that it is the expectation of memory loss that leads to actual memory loss. Although there is evidence that reaction time slows down and it may take longer to learn new information in old age, this is thought to be related to other variables (e.g., illness, motivation, learning style, amount of education and lack of practice)

(Poon, 1987).

Another myth about aging is that mental illness is common, inevitable, and untreatable among older adults (Palmore, 1981). In fact, according to George (1984), only 2% of those 65 and older are institutionalized with a psychiatric illness as the primary diagnosis. Some of the most comprehensive community surveys indicated that fewer older adults have mental impairments than do younger persons (Myers, Weissman, Tichler, Hozer, & Leaf, 1984).

A different myth suggests that older people are unproductive. In fact, no age group shows a consistent pattern of superior production (Dychtwald, 1990), and the majority of older workers can work as effectively as younger workers (Palmore, 1990).

An additional myth about older adults is that the elderly are for the most part isolated. Research suggests that the majority of elders are not isolated, and those who are (about 4 %) have a lifelong history of withdrawal (Kahana, 1987).

That older people have no sexual activity or sexual desire and those that do are abnormal is another myth of aging (Palmore, 1990). In fact, research suggests that older people usually have the capacity for sexual relationships into the seventh and eighth decades for healthy couples (Masters & Johnson, 1966), and that sex continues to play an important role in the lives of older adults until the late 70's (Palmore, 1990).

Another stereotype of the elderly is that they are generally poor. In fact,

most elders have incomes well above the federal poverty level and, furthermore, the average elder is more affluent than the average person under 65 (Palmore, 1990).

Finally, Dychtwald (1990) points to the myth that older people are homogeneous. He asserts that there is no age group that is more varied in terms of financial capabilities, physical abilities, personal styles, tastes and desires than the older population.

The Communication and Perpetuation of Ageism

The communication of ageism is prevalent in our society. Several media perpetuate ageism and negative attitudes towards older adults. These include the print media, television, and language. Even humor and art indicate that ageism is pervasive in our society. Additionally, institutions such as business and government, and the human service professions perpetuate ageism.

Vesperi (1993) described a type of print journalism called the "age page" that targets older adults in newspapers. She characterized these articles as cute and condescending, and notes the emphasis on advice and human-interest stories rather than news. Similarly, Cirillo (1993) discussed the use of words (rusty, rancid) in the news magazines that insinuate the aging person is thought of as a corroding disintegrating machine. A study of British print media found that persons over 50 years of age are underrepresented in the general popular print media (Carrigan & Szmigin, 1999).

Citing several studies, Palmore (1990) argued that there are several ways in which television supports ageism. First is by the dearth of elder characters, secondly by a sexist bias (fewer than 10% of those elderly people on television are female, and they are generally portrayed negatively), and thirdly older adults in nighttime television tend to be portrayed as "bad guys", prone to failure, and in general unhappy. The last two examples Palmore cited as supporting ageism is televisions portrayal of the elderly in news and documentaries as negative, and as being overly represented in commercials for health aids.

Nuessel (1982) argued that the language we use to depict the elder is overwhelmingly negative. He cited several examples including "geezer", crotchety, codger, grump, spinster and biddy that are used to describe the elderly. He further suggested that many such terms are twice as insulting because they refer to both ageist and sexist references. Another damaging semantic pattern is the use of linking "old" with some negative trait, such as, "old and frail", "old and lonely", or old and senile" (Palmore, 1990).

Humor reflects attitudes about the aged in America. In jokes, cartoons, comic strips and birthday cards, predominate themes include decline of physical appearance, lessening of sexual ability, decline in physical and mental abilities, denial of aging, and loss of attractiveness (Osgood, 1996).

Even art communicates ageism. Cohen and Kruschwitz (1990) analyzed over 300 examples of sheet music from the 19$^{th}$ and 20$^{th}$ centuries and determined

that a significant majority present a negative view of older adults. Clark (1980) analyzed 120 poems by contemporary poets (aged 60 and over) and found that negativity towards old age was found in approximately 2/3 of those poems studied.

Institutions such as business, government and the human service professions perpetuate ageism. Not hiring or not promoting older workers is a form of ageism that institutions engage in. Various branches of government perpetuate ageism in a number of ways, including the use of a higher federal poverty standard for the elderly, job training targeted for younger age groups, and targeting children and adolescents as the recipients of state welfare funds. Human service professionals contribute to ageist attitudes by not including aging issues in training material or classes. For example, geriatrics training is not required for most medical students although older adults will comprise a significant proportion of their patients (Robinson, 1994).

Effects of Ageism

The effects of ageism include personal costs, economic costs and social and cultural costs (Palmore, 1990). There are personal costs to not only older adults, but to the younger generations as well.

According to a poll conducted by the National Council on Aging, gerontophobia is ingrained in all of us, including the older adult population. According to this poll, the elderly was as misinformed and prejudiced about aging

and the aged as were other age groups (Dychtwald, 1990). If it is true that older adults accept negative stereotypes of their age group, they may come to see themselves in negative terms or as marginal members of the culture, which can contribute to older adults feeling a sense of helplessness and powerlessness. (Osgood, 1996). In turn, they may behave in a matter consistent with the stereotypes, otherwise known as a self-fulfilling prophecy (Palmore, 1990). As a result they may become isolated and disengage from civic, social and other groups (Osgood, 1996).

Ageism also exacts its toll on the younger generations. Ageism can enhance intergenerational conflict and encourage dread and fear of aging in the younger population. (Vasil & Wass, 1993). The cost to younger people can also include lost opportunities for wisdom and guidance that the elderly have to offer (Palmore, 1990).

Ageism also results in economic costs to our society. For instance, ignoring the productive and creative abilities of many older Americans will result in economic loss (Palmore, 1990).

Finally, ageism involves costs to society and the culture in general. Palmore (1990) argues that many traditional societies use the social support and cultural resources that the elderly provide. He suggests that many social problems (e.g., high crime rates, juvenile delinquency, labor shortages, and lack of adequate child care) of industrialized nations may be related to a lack of utilization of elder

resources (Palmore, 1990).

## Combating Ageism

Palmore (1990) offered several suggestions to combat ageism that include changing the structure (for instance the government, housing, the family and health care) and changing the ageist individual. The suggestions he included for changing the individual are education, propaganda, and exhortation through slogans, religious organizations, and the media. A study by Ragan (2001) suggested that education about the elderly population can change attitudes about the elderly, although these changes may not be maintained over time without reinforcement. Gordon and Hallauer's (1976) study of information impact on attitudes towards the aged suggested that while a course on adult development significantly altered attitudes towards the aged, the effect was more pronounced when education was combined with contact with the elderly.

### Increasing Intergenerational Contact

Palmore (1990) additionally cited personal contact in which older and younger people cooperate to achieve goals as an effective way to reduce prejudice between the generations. This is consistent with contact theory (Allport, 1954), which will be discussed in the theory section. Many authors have suggested that a lack of intergenerational contact may be partly responsible for negative attitudes towards the elderly. For example, Ivester and King, (1977) suggested that one reason for negative attitudes towards the elderly is the high degree of age

stratification in American society. Dooley and Frankel (1990) suggested that contact between the elderly and others in society may encourage people to confront their fears about aging, which will thereby reduce or replace negative attitudes about getting older and older adults. Over the past three decades, the number and variety of intergenerational programs established has increased. As such, pressure will increase for programmers to show the potential benefit of intergenerational projects (Vernon, 1999). Although it has been speculated the grandparent/grandchild relationship plays a formative role in attitudes towards the elderly (Kahana & Kahana, 1970), the grandparent/grandchild relationship is often an overlooked opportunity for intergenerational contact.

## Grandparent/ Grandchild Relationship

### Importance and Trends

Numerous studies have suggested the perceived importance of grandparents in their grandchildren's life (Wiscott & Kopera-Frye, 2000). Providing emotional support (McAdoo & McWright, 1994), a sense of continuity across time (Hagestad, 1985), sharing culture (Wiscott & Kopera-Frye, 2000) financial assistance (Silverstein & Marenco, 2001), and having an influence on value development (Roberto & Stroes, 1992) are but a few of the benefits to grandchildren cited in the literature.

There are an unprecedented number of grandparents in today's society. Hooyman and Kiyak (1988) reported that 94% of older adults who have children

also have grandchildren. Moreover, recent research has found that due to lengthening longevity, increasing numbers of adult grandchildren are experiencing relationships with their grandparents (Hodgson, 1992; Uhlenberg, 1996). A study by the American Association of Retired Persons revealed that of people aged 65 and older, approximately 56% have at least one adult grandchild (Bengtson & Harootyan, 1994).

Over the past 40 years, the direction and scope of the literature on grandparents and grandchildren has taken several different routes. Beginning in the 1960's and continuing through the decades, the literature has suggested typologies and classification of styles of grandparenting (Cherlin & Furstenberg; 1986; Nahemow, 1985; Neugarten, 1964), although research published in the 1980's focused less on typologies and more on the diversity of grandparents and their behavior (Pruchno, 1995). Most recently, the importance of ascertaining the life course position of grandparents and grandchildren in regards to grandparental role has been stressed (Silverstein & Marenco, 2001).

The meaning of grandparenthood from the developing grandchild's perspective was first studied in 1970 (Kahana & Kahana, 1970). Increasingly, the important resources grandparents provide to their family system experiencing a crisis (Cherlin & Furstenberg, 1986; Scherman, Goodrich, Kelly, Russell, & Javidid, 1988) are being acknowledged. The role of grandparents in families of divorce (Bobollub, 1980; Hilton & Macari, 1997; Schutter, Scherman, & Carroll,

1997), and families with disabled grandchildren (Hastings, 1997; Nybo, Scherman, & Freeman, 1998; Sandler, Warren, Raver, 1995; Schilmoeller & Baranowski, 1998) have been explored in the literature. Another recent topic in the stressed family system literature is grandparents taking on custodial or care taking roles of their grandchildren (Adkins, 1999; Beverly, 1998; Bratton, Ray, & Moffit, 1998; Emick & Hayslip, 1996; Hayslip, Shore, Henderson & Lambert, 1998; Stanton, 1998).

Great grandparents and step-grandparents are recent areas of interest in the literature. Szinovacz (1998) found that stepgrandparenting (especially in black populations) is an increasing phenomenon as the result of middle generation and grandparental divorce. Sanders and Trygstad (1989) found that grandchildren report desiring and having more contact, more involvement, and rate their relationship as more important with biological grandparents than with step grandparents. Another non-traditional grandparent role being explored in the literature is that of great grandparent. Nearly 50% of older adults are becoming great-grandparents (Roberto & Stroes, 1992), although they have been reported to have a remote relationship with their great-grandchildren in general (Doka & Mertz, 1988).

A recent article using the National Survey of Families and Households statistics discussed current trends in grandparenthood. Szinovacz (1998) reported the following results: grandparenthood is a near universal experience;

grandparenthood is essentially a midlife transition, however there is a considerable extent of off-time (e.g., early, late) grandparenthood especially among black women; most grandmothers survive well into the adulthood of at least their oldest grandchild whereas men are not likely to survive that long.

Contact in/ Closeness and Strength of the Grandparent/Grandchild Relationship

In a study of grandparents in a rural southern state Spence et al. (2001) found that approximately 60% of their sample had frequent contact with their grandchildren.

Similarly, Harwood (2000a) studied the frequency of college-aged grandchildren's communication with their grandparents and found that modes of communication were used fairly frequently (62% indicated they communicated several times a month or more). In this study, face to face and telephone communication was used more often than written media. He additionally found that frequency of communication was associated with relational quality.

Uhlenberg and Hammill (1998) found six factors that make a difference when studying frequency of grandparent/grandchild contact with grandchild sets. The predictors included geographic proximity, number of grandchild sets, gender of the grandparent, lineage of the grandchild set, marital status of the grandparent and the quality of the relationship between grandparent and parent of the grandchild set.

A recent growth curve analysis of grandparent's perception of solidarity

with grandchildren over 23 years confirmed that contact and proximity to grandchildren decline at an accelerating rate as the relationship matures. Interestingly, although contact declines steadily, only over the first 14 years does affection decline, and then modestly reverses. This suggested that more mature, autonomous grandparent/grandchild relationships do not necessarily lower evaluations of satisfaction with these relationships (Silverstein & Long, 1998).

The strength of the grandparent /grandchild relationship has been found to be related to age, geographic proximity, the child-parent relationship, the parent-grandparent relationship, lineage (Hodgson, 1992), the extent to which the grandparent influences the grandchild's life (Brusonni & Boon, 1998), and the amount of shared activities (Kennedy, 1992a, 1992b). Previous research consistently suggested that grandchildren feel the most emotionally close with maternal grandparents in general and particularly maternal grandmothers (Chan & Elder, 2000, Hoffman, 1979, Matthews & Sprey, 1985, Mills et al., 2001). Kennedy (1991) found that young adult grandchildren cited enjoying the grandparent's personality and shared activities, experiencing the grandparent's appreciation, receiving individual attention and support, and seeing the grandparent as a role model or teacher as reasons for closeness with grandparents.

Methodological weaknesses/ measuring relationship "closeness"

A review of the literature that refers to the construct of "closeness" in the grandparent/grandchild relationship reveals three major methodological

weaknesses. The first weakness is the interchangeable use of the concepts relationship quality, relationship strength, contact and closeness, with no clear delineation of what each concept is measuring or, further, any theoretical formulation of any of the above terms. For instance, Wiscott and Kopera-Frye (2000) measured relationship quality between adult grandchildren and their grandparents by using a four item scale that assessed the degree to which they "understood and felt close" to their grandparents. In a study by Kennedy (1992a, 1992b), closeness was measured using three 7-point Likert scale items that assessed how close grandchildren felt to their grandparent, how much value they place on the relationship, and the amount of time they spend with them. Harwood (2000a) measured "level of closeness" by 3 five point scales that asked how well participants get along with their grandparent, how emotionally close they feel to their grandparent, and how well they communicate with their grandparent.

The second methodological weakness when measuring closeness in the grandparent/grandchild relationship is the tendency to ask participants to fill out surveys based on the grandparent with whom they are the closest, with no empirical measure of how close they are (so as to provide meaningful comparisons). For example, both Brussoni and Boon (1998) and Kennedy (1991) asked participants to select their "closest grandparent" (or alternatively the grandparent whom they have the most contact with) as the basis for their responses and generally assume that all participants felt equally "close" to the

closest grandparents they selected.

More recent studies have asked participants to choose the grandparent they feel closest to and then attempt to operationalize this construct. However, these measures are often highly subjective with few items measuring the construct, thus calling into question the validity of the assessment, which is the third methodological weakness. For example, Harwood (2000b) used a single item measuring grandchildrens' perceptions of closeness with possible responses on a five-point continuum, ranging from very distant to very close. Hodgson (1992) determined grandchildren's perceived closeness by using a one-item 4-point scale ranging from not close at all to very close. Brussoni and Boon (1998) in an attempt to more precisely define the strength of their selected participants closest grandparental relationship included four key dimensions; emotional closeness, intimacy, importance and perceived influence. However, only eight items represented these four dimensions, with only one item pertaining to emotional closeness. More recently, Silverstein and Long (1998) and Mills, Wakeman and Fea (2001) measured "affectual solidarity" (perception of emotional closeness among individuals from different generations) with five items on a 6-point Likert scale. This trend can also be seen in the literature where grandparents are asked to rank closeness with their grandchildren. For example, Silverstein and Marenco (2001) on an affective/cognitive dimension of the grandparent role measured perceived emotional closeness with grandchildren on a 5 point scale where 1=not

at all close, and 5=extremely close.

## Theory

### Discussion of Terms

Prejudice has been defined as negative attitudes with respect to an outgroup (Hewstone & Greenland, 2000). Chumbler (1994) defined attitudes as an organized set of beliefs, values or evaluations held about a group of objects or a particular object. Vernon (1999) added feelings about an object(s) to this list. Moreover, stereotypes have been defined as a type of schema or knowledge structure about social groups (Richards & Hewstone, 2001) and as positive and/or negative generalized superficial beliefs about a group (Hooyman & Kiyak, 1988).The literature has recently had lengthy commentaries on the usefulness of distinguishing between stereotypes and attitudes. Authors have pointed to the evaluative (subjective) nature of an attitude (Eagly & Chaiken, 1993), whereas a stereotype is not typically thought of as evaluative. Vernon (1999) asserted that in the older literature, having a negative old age stereotype implied having negative feelings towards elderly individuals. However, stereotypes include both positive and negative images, and are not necessarily true. This is consistent with an information processing approach that asserts that stereotypes are used to organize information in the environment.

Although the constructs of both stereotypes and attitudes can be subjectively defined independently of each other, there is question as to whether

there is a measure that at this time can maintain their independence. Rather than absolute, the distinction appears to be relative. Although the criteria for item inclusion for attitude versus stereotype measurement is not the same, significant item overlap does occur, which makes it difficult to determine exactly what is being measured. Semantic differential measures (presenting several statements or descriptors that are known to be widely believed to be the characteristic of a target and asking respondents to indicate the degree to which they endorse each item.) are most useful when trying to assess the degree to which an already identified stereotype is endorsed (Knox, Gekoski, & Kelly, 1995). A relatively new semantic differential scale, the Aged Inventory has attempted to measure both evaluative dimensions (for assessing attitude) and descriptive dimensions (for assessing stereotypes) (Knox et al., 1995).

General Theories of Prejudice and Attitude Change

Social learning theory holds that prejudice is learned through modeling (Katz, 1976; Kryzanowski & Stewin, 1985). As such, parent's attitudes towards different groups are theorized to have a significant impact on their children's attitudes (Ponterotto & Pedersen, 1993). In addition to overt attitudes and discrimination practices, the lack of interaction with different groups (covert) can also contribute to negative attitudes.

Social identity theory (Tajfel & Turner, 1986) posited that in the interest of a positive social identity, group members are motivated to seek out, make and

maintain biased intergroup comparisons as to maintain a positive social identity. These biases are moderated by the stability and legitimacy of intergroup status differences and the permeability of group boundaries.

Sherif's (1966) Realistic Group Contact Theory proposed that attitudes and behaviors of intergroups will reflect the degree of interdependence between groups. Where there are conflicts of interests (negative interdependence) it is predicted that there will be intergroup hostility, discrimination and prejudice. When the groups work towards the same goals (positive interdependence), the relationship will be categorized by friendship and tolerance. Experimental, quasi-experimental and naturalistic setting designs have all supported this theory (Brown, 2000; Brown, Condor, Matthews, Wade & Williams,1986; Sherif, 1966). For instance, in the literature on ageism, authors point to a recent portrayal of older people who benefit from public entitlement programs disproportionately to their need (Binstock, 1983; Kotlikoff & Gokhale, 1996), and to a relatively small population of working age people paying high social security to benefit the older population (Chen, 1989) as an example of negative interdependence between generations.

Festinger's (1957) cognitive dissonance theory is a comprehensive theory of attitude change, which asserted that cognitive dissonance occurs when there is inconsistency between beliefs, attitudes or behaviors (elements). If the dissonance is uncomfortable enough for the person, the conflict will motivate the

person to change one of the two elements to make them congruous or consonant. Attitude change can be the result of altering these elements. All dissonant relationships between elements are not equally discomfiting. Festinger asserted that the magnitude of the dissonance is mediated by the importance or the value of the elements and by the proportion of relevant elements that are dissonant with the element in question. Therefore, one may hypothesize that the more emotionally fulfilling or close the grandparent /grandchild relationship, the less likely grandchildren will be to have negative attitudes towards the elderly. Interestingly, Boon and Brussoni (1998) found that grandchildren who are not close with their grandparents are just as unlikely to believe stereotypes about grandparents. This suggests that there are additional factors that account for attitude change, which contact theory addresses.

Contact theory

Contact theory asserted that contact with particular members of an outgroup can have positive consequences for attitudes towards that outgroup as a whole. Allport (1954) specified four conditions for intergroup contact to be successful in combating negative attitudes: Equal status among group members in the situation, common goals, cooperation among groups, and the support of authority are all mentioned as necessary for successful intergroup contact. Early studies of the theory suggested that "acquaintance potential" is also important. Intergroup contacts whereby the members get to know each other as individuals

are likely to produce sounder beliefs concerning the outgroup and this can reduce negative attitudes and prejudice (Allport, 1954; Cook, 1978). Another important facilitating factor in the successful intergroup encounter was the outgroup member must disconfirm the prevailing outgroup stereotypes (Cook, 1978).

Generalization

The goal of intergroup contact is termed "generalization". Three types of generalization have been consistently suggested in the literature (Pettigrew, 1998). The first type of generalization is generalizations across situations. Pettigrew cited studies where improvement in attitudes towards an outgroup does not generalize across situations. For example, a WWII study showed that although white soldier's attitudes towards black soldiers improved after combat together, whites continued to favor separate military stores (Stouffer, Suchman, DeVinney, Star, & Williams, 1949).

The second type of generalization is generalization from the outgroup individual to the outgroup, which is the generalization with which this study is concerned. Hewstone and Brown (1986) postulated that this type of generalization will optimally occur when group membership (of the outgroup member) is salient (salient categorization strategy), because if there is low group saliency, the relationship will be conceptualized as interpersonal, not intergroup. Pettigrew (1998) discussed problems with salient categorization strategy, including the concept that people with similar interests seek each other out, and

group membership will not be salient. Therefore, those who are most likely to have contact between groups will be atypical of their groups, therefore reducing generalization. However, Pettigrew offers widespread examples in society that offer opportunities for contact between dissimilar groups, for instance, clerks and customers, or parents and children. Note that the grandparent/grandchild relationship would fall into this category. Alternatively, Brewer and Miller (1984) asserted that a generalization from the outgroup individual to the outgroup will be most successful when group salience is low (decategorization strategy). They argued that people with similar interests tend to have contact with each other, so intergroup contact will involve people who have similar interests and values, and further, that categorization is often associated with bias and discrimination.

In trying to resolve the conflicting aforementioned findings, Pettigrew (1998) proposed that the time sequence is critical, and that both strategies can be beneficial if they take place sequentially. When intergroup contact is initiated, diminished group salience can be important, and as the relationship matures, salient group categorization will be required for the effects to generalize.

The third type of generalization is generalization from the immediate outgroup to the other outgroups. Briefly, Pettigrew (1998) proposed this higher order process of generalization may be possible, but few studies have been conducted in this area, although an initial study shows generalization to a wide

variety of outgroups (Pettigrew, 1997).

Meta-analysis of contact theory

In an exhaustive meta-analytic study of the intergroup contact theory literature, Pettigrew (1998) raised interesting issues that are relevant to the current study. Pettigrew found field and archival studies, national surveys and laboratory experiments generally support the contact hypothesis. He addresses the question of selection bias in the cross sectional studies (prejudiced people avoid intergroup contact, therefore, the casual link between contact and prejudice is two way) but concluded that the reviewed studies that test both paths find that positive effects of between group friendship are stronger than those of the bias.

As a result of the findings of his meta-analysis, Pettigrew suggested that there are four processes of change occurring in intergroup contact. The first is learning about the outgroup, which has been the focus of most research. The second process is changing behavior; that is, revising our attitudes as the result of dissonance between old prejudices and new behavior. This process assumes that repeated contact itself leads to liking. The third process is termed "generating affective ties", by which emotion is seen as critical in intergroup contact. Both positive and negative emotions can be experienced with intergroup contact; as positive emotions will more likely lead to attitude change, and for this reason, he cites intergroup friendships as a pivotal research topic. The last process presented is a reappraisal of the ingroup. By gaining a new perspective of the world from

the outgroup member, ingroup member's view of the ingroup will be reshaped. This is influenced by having more contact with the outgroup, which results in having less contact with the ingroup.

Finally, Pettigrew (1998) suggested a progressive (though not necessarily linear) model in which essential and facilitating situational factors (suggested by Allport and others) predicate initial contact or decategorization (optimally leads to liking without generalization), then established contact or salient categorization (optimally leads to reduced prejudice with generalization) and finally unified group or recategorization (highlights similarities between groups and obscures the we/they boundary) which ultimately leads to maximum reduction of prejudice (but is not usually attained). He described the stages as overlapping, and reminded the reader that the groups can break off contact at any time. He suggested that intergroup friendship is especially potent to generalization because of it's potential to invoke all four mediating processes over time. He argued that long term relationships rather than initial acquaintanceship lead to more constructive contact (Pettigrew, 1998). The grandparent/grandchild relationship, although not necessarily a friendship, also has the possibility of evoking all four processes over time.

In sum, in addition to Allport's initial conditions for successful intergroup contact (equal group status among group members in the situation, common goals, cooperation among groups, and authority support) (Allport, 1954), the work

of several authors suggested that in order to be effective in changing negative attitudes towards an outgroup essential and facilitating situational factors include:

1. The outgroup member must disconfirm stereotypes of his or her group (Brewer & Miller, Cook, 1978)
2. Outgroup members must initially be seen as non-typical of his/her group (decategorization or low group salience) (Brewer & Miller, 1984), then as the relationship matures as typical (salient categorization or high group salience) (Hewstone & Brown, 1986) to improve attitudes (Pettigrew, 1998).
3. The situation must have "acquaintance potential" (Allport, 1954; Cook, 1978) or optimally "friendship" potential (Pettigrew, 1998)

Contact theory and ageism.

Many studies have been done assessing how intergenerational contact impacts attitudes towards the elderly and they yield contradictory results. Several studies suggested that intergenerational contact is related to significant positive changes in attitudes towards older adults (Caspi, 1984; Murphy-Russell et. al., 1986, Peacock & Talley, 1984), whereas others have reported neutral or negative results (Doka, 1985; Eddy, 1986; Fletcher, Lerner, & Coleman, 1971; Gordon and Hollanauer, 1976). In the majority of the aforementioned studies, little effort was made to control for variance in the interventions. Another methodological weakness of some of theses studies (e.g., Fletcher et al, 1971; Gordon &

Hollanuer, 1976) is that the intergenerational contact involved the aged who had physical or financial limitations that correspond to negative attitudes towards the aged (Dooley & Frankel, 1990; Pettigrew, 1998).

More recently, studies have assessed the quality of contact between the generations as an important variable regarding attitudes towards the aged. For instance, Dooley & Frankel (1990) found that the perceived quality of the intergenerational experience (e.g., a "visitor friendly" type of program) had a significant impact on improving Canadian secondary school students' attitudes towards the aged. Similarly, based on studies of racism, Palmore (1990) hypothesized that personal contacts between the generations that involve competition and conflict may actually reinforce prejudice.

Attitudes towards older adults and grandparental contact.

Harwood (2000a) suggested that the grandchild/grandparent relationship is important because it may be the location in which the most communication between the old and young occurs, and it offers opportunity for frequent and intimate contact between the ages, contact that may be rare in other situations (Harwood & Lin, 2000). A review of the literature indicates that although intergenerational contact is often cited as a way to combat negative attitudes towards the elderly, grandparental contact appears to have been overlooked with a few notable exceptions. One such study, through a multiple regression analysis of over 1500 adults from the ages of 18-90, found that young adults were the least

supportive (of all age groups) of elderly entitlement benefits, although early contact with grandparents moderated young adults (aged 18-24) opposition to public support for the elderly (Silverstein & Parrott, 1997). Another study by Hillman and Stricker (1996) found that presence of contact with at least one grandparent was predictive of more permissive attitudes of elderly sexuality, and further, that greater than average perceptions of closeness was also an important predictor of attitudes towards adult sexuality. Finally, an experimental study of 200 Australian adolescents (aged 13-14) attitudes towards the elderly as a function of the relationship with their grandparents concluded that the manipulated quality of the grandparent/grandchild visit was positively related to higher attitudinal scores towards the elderly (Thomas & Hallebone, 1994).

## Summary

Attitudes towards older adults and ageism have been mentioned in the literature since 1969, although they have become increasingly important topics as the result of the aging of America. Several methods of combating ageism have been discussed in the literature, and in keeping with contact theory, increased intergenerational contact appears to be helpful in improving attitudes towards older adults. Several essential and facilitating conditions for intergenerational contact to be successful in combating negative attitudes towards older adults have been suggested. The first that is relevant to this study is that the outgroup member (older adult) must disconfirm stereotypes of older adults in general.

Secondly, the older adult must initially be seen as non-typical of his or her age group, and as the relationship matures as typical of his/her own age group. Finally, the intergroup contact must have acquaintance or friendship potential. It has been suggested that the grandparent/grandchild relationship is important in that it is the relationship by which most contact between the generations takes place, contact that may be rare in other situations (Harwood & Lin, 2000). Therefore this study will examine the facilitating and essential conditions proposed by contact theory in regards to the grandparent/grandchild relationship, and how this effects grandchildren's attitudes towards older adults.

## Hypotheses

**Hypothesis 1:** Based on contact theory, as college students' positive attitudes towards older adults increase, their grandparent fit (as perceived by the grandchild) with older adult stereotypes will increase.

**Hypothesis 2:** Based on both cognitive dissonance and contact theory, as college students' positive attitudes towards older adults increase, so will the closeness (as perceived by the grandchild) of the grandparent/grandchild relationship.

**Hypothesis 3:** As college student's favorable (positive) thought-listing of their grandparents increases, so will their positive attitudes towards older adults. This relationship will be moderated by the closeness of the grandparent/grandchild relationship.

## Method

### Participants

Approximately 100 participants will be recruited from an entry level career development course and an entry level psychology course at a large Midwestern University. Subjects will be notified of the study and receive research credit to partially meet their class requirement.

### Instruments

The Age Group Evaluation and Description Inventory (AGED). The AGED Inventory (Knox et al., 1995) is an assessment both of age stereotypes and of attitudes towards age specific targets. Two factors (Goodness and Positiveness) each consisting of seven items, can be combined to assess evaluative dimensions or attitudes towards age groups (criterion variable), and the remaining two factors (Vitality and Maturity) each consisting of seven items, can be combined to obtain a descriptive dimension or stereotypes towards age groups (predictor variable).

The AGED is comprised of 28-item adjective pairs. The items are polar adjectives, scored from one (negative) to seven (positive). Examples of the pairs include: Generous/ Selfish (Goodness factor), Hopeful/Dejected (Positiveness factor), Sexy/Sexless (Vitality Factor) and Modest/Boastful (Maturity factor). Two samples of 600 undergraduates rated male and female targets who were young, middle aged, or older in a between Ss design. Two hundred additional Ss

rated a male or female target in all three age ranges in a within Ss design. The aforementioned factor structures were replicable across samples, target ages, and experimental designs (coefficients of congruence range from .81-.99). Test-retest (6 month) reliability estimates for the four factors yield results between .57 (Positiveness factor) to .75 for the Vitality factor.

The Relationship Closeness Inventory (RCI). The RCI (Berscheid, Snyder, & Omoto, 1989) is an assessment of relationship closeness firmly grounded on the theory that closeness is a high interdependence of two people's activities. It is comprised of a total score and 3 subscales that include frequency, diversity, and strength. Frequency is a measure of the number of hours spent with the target person in the last week, and this subscale can range from 0 to 1200. Diversity is a frequency scale (yes/no), which assesses the number of activity domains the pair has engaged in over the past week, and ranges from a score of 0 to 38. Strength is a Likert type subscale that includes 34 items that purportedly measure how influenced one person is by the other. Values of this scale range from 34 to 238. Each of the subscales can be converted into a Scaled Score of 1-10. An overall closeness score can then be determined by adding all of the scaled scores with a possible total score of 3-33, with increasing scores accounting for closer relationships. Highly significant differences were found on scores of close and not-close relationships, which indicates that it is a valid way of discriminating the closeness of an individual's relationships. Test-Retest reliability at 3-5 weeks

for frequency was .82, for diversity-.61, and for strength, .81.

Thought-Listing Technique (TLT) The TLT (Cacioppo, Glass, & Merluzzi, 1979) is a type of cognitive assessment that is useful when one has no predetermined ideas of the cognitive dimensions that are pertinent. It is based on the assumption that content analyzing individual's reported thoughts, ideas, images and feelings can reveal the psychological significance of their thoughts and feelings. Typically, after listing thoughts, participants rank the nature of the listed thoughts. Participants will be asked to generate thoughts or ideas (for three minutes each) about older adults, their closest grandparent, and finally, any other grandparent that they have listed as influential. They will then go back to their lists and mark their individual thoughts as positive, negative or neutral.

Influence Finally, the participants will be asked to rank the degree of influence of the closest grandparent and each individual grandparent previously listed as influential using a scale in which 1=not at all influential and 7=very influential.

Procedures

Participants will be recruited from introductory career development and psychology classes at a large Southwestern University during the Fall semester of 2001 and Spring semester of 2002. Each participant will be asked to voluntarily sign an informed consent form, and complete a demographic questionnaire, the Aged Inventory (once for adults 65 and older and once for their "closest

grandparent"), and the RCI (with their previously rated "closest grandparent" as reference. They will be asked to fill out the AGED Inventory first with the directions, "How would you characterize the typical person who is aged 65 or older?". Next they will be asked to think of their closest grandparent when filling out the RCI. They will next be asked to fill out the AGED Inventory with the instructions, "How would you characterize your closest grandparent?" Participants will then be asked to fill out the thought listing protocol for older adults and their closest grandparent. Finally, participants will be asked to rank how influential their closest grandparent has been in their lives with 1=not influential at all and 7=very influential. The above order was determined to have the least chance of contamination effects.

Data Analysis

An initial analysis will consist of computing descriptive statistics to define the demographic characteristics of the sample. The mean, range, standard deviation, as well as cumulative frequencies will be provided for information provided in the demographic questionnaire.

**Hypothesis 1:** Based on contact theory, as college students' positive attitudes towards older adults increase, their grandparent fit (as perceived by the grandchild) with older adult stereotypes will increase.

A Pearson correlation coefficient will be used to analyze the relationship between college students' positive attitudes towards older adults

(goodness/positiveness factor on the AGED filled out with older adults in mind) and their grandparent fit with negative older adult stereotypes (vitality/maturity factor on the AGED filled out with their closest grandparent in mind). If a relationship is found, a regression analysis will be used to look more closely at the influence of each individual factor (AGED goodness and positiveness factors filled out with older adults in mind and the AGED vitality and maturity factors filled out with their closest grandparent in mind).

**Hypothesis 2:** Based on both cognitive dissonance and contact theory, as college students' positive attitudes towards older adults increase, so will the closeness (as perceived by the grandchild) of the grandparent/grandchild relationship.

A single Pearson R will be used to analyze the relationship between college students' positive attitudes towards older adults (AGED goodness/positiveness factor filled out with older adults in mind) and the closeness of the grandparent/grandchild relationship (total relationship closeness inventory score). Further, to test the three components of closeness as predictors of positive attitudes towards older adults, a multiple regression analysis will be used.

**Hypothesis 3:** As college student's favorable (positive) thought-listing of their grandparents increases, so will their positive attitudes towards older adults. This relationship will be moderated by the closeness of the grandparent/grandchild relationship.

This data will be analyzed by using a partial correlation between thought listing and positive attitudes towards older adults (AGED goodness/positiveness factor with older adults in mind) with closeness (total RCI) partialed. To more closely investigate the effect of the individual components of closeness (frequency, diversity and strength subscales) the analysis will be rerun partialing the three components of closeness.

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## Appendix B

## IRB Approval and Participants Consent From

*The University of Oklahoma*
OFFICE OF RESEARCH ADMINISTRATION

October 4, 2001

Ms. Paige Lisbeth Freeman
21519 San Marino Drive
Katy, TX 77450

Dear Ms. Freeman:

The Institutional Review Board-Norman Campus has reviewed your proposal, "Attitudes Towards Older Adults and Grandparent Contact," under the University's expedited review procedures. The Board found that this research would not constitute a risk to participants beyond those of normal, everyday life, except in the area of privacy, which is adequately protected by the confidentiality procedures. Therefore, the Board has approved the use of human subjects in this research.

This approval is for a period of twelve months from this date, provided that the research procedures are not changed significantly from those described in your "Application for Approval of the Use of Humans Subjects" and attachments. Should you wish to deviate significantly from the described subject procedures, you must notify me and obtain prior approval from the Board for the changes.

At the end of the research, you must submit a short report describing your use of human subjects in the research and the results obtained. Should the research extend beyond 12 months, a progress report must be submitted with the request for re-approval, and a final report must be submitted at the end of the research.

Sincerely yours,

Susan Wyatt Sedwick, Ph.D.
Administrative Officer
Institutional Review Board-Norman Campus

SWS:lk
FY02-59

Cc: Dr. E. Laurette Taylor, Chair, Institutional Review Board
Dr. Avraham Scherman, Educational Psychology

1000 Asp Avenue, Suite 314, Norman, Oklahoma 73019-0430 PHONE: (405) 325-4757 FAX: (405) 325-4039

*The University of Oklahoma*
OFFICE OF RESEARCH ADMINISTRATION

January 23, 2002

Ms. Paige Lisbeth Freeman
21519 San Marino Drive
Katy, TX 77450

SUBJECT: "Attitudes Towards Older Adults and Grandparent Contact"

Dear Ms. Freeman:

The Institutional Review Board has reviewed and approved the requested revision(s) to the subject protocol.

Please note that this approval is for the protocol and informed consent form initially approved by the Board on October 4, 2001, and the revision(s) included in your request dated January 20, 2002. If you wish to make other changes, you will need to submit a request for revision to this office for review.

If you have any questions, please contact me at 325-4757.

Sincerely yours,

Susan Wyatt Sedwick, PhD
Administrative Officer
Institutional Review Board-Norman Campus

SWS:lk
FY2002-59

cc: Dr. E. Laurette Taylor, Chair, IRB
Dr. Avraham Schenman, Educational Psychology

1000 Asp Avenue, Suite 314, Norman, Oklahoma 73019-4077 PHONE: (405) 325-4757 FAX: (405) 325-4388

**UNIVERSITY OF OKLAHOMA- NORMAN CAMPUS**
**AGREEMENT TO PARTICIPATE IN A RESEARCH PROJECT**

**INTRODUCTION:** This study addresses the impact grandparents may have on college students' attitudes towards older adults. It is an attempt to identify grandparent characteristics and the qualities of the grandparent/grandchild relationship that may impact college students' attitudes towards older adults. This will lead to increased knowledge of the usefulness of intergenerational contact in combating ageism.

**DESCRIPTION OF THE STUDY AND PROCEDURES:** If I decide to take part in this study, I will be given four instruments and a demographic questionnaire to complete. My responses to these questionnaires will provide information about my involvement with and characteristics of my closest grandparent, and my attitudes towards older adults.

**BENEFITS:** The study is expected to provide useful information about grandparent/grandchild relationships and its impact on grandchildren's attitudes towards older adults.

**RISKS:** There are no known risks in this study.

**ALTERNATIVE PROCEDURES:** Since participation in this study is entirely voluntary, I may choose to not participate.

**PARTICIPANTS ASSURANCES:** I understand that my participation in this study is voluntary. I have not given up any of my legal rights or released these institutions from liability for negligence. I understand that I may withdraw from this study at any time without loss of benefits to which I am otherwise entitled.

I understand that all information regarding my participation in this study will be kept confidential and that I will not be identifiable by name or description in any reports or publications related to this study. Participants will be assigned identification numbers. The use of raw and refined data will only refer to participants by this ID number. Storage of raw and refined data will be stored in a locked file cabinet in the office of the principal investigator.

If I am participating in this research project to obtain course credit and I decide to withdraw from participating, I might not get course credit associated with the research project.

If I have any questions about this study or need to report any adverse effects from the study procedures, I may contact Paige Freeman or Avraham Scherman at 325-2914. If I have any questions about my rights as a research participant, I may contact the Office of Research Administration at the University of Oklahoma (405) 325-4757.

**I hereby agree to participate in the above research project. I understand my participation in this study is voluntary, and refusal to participate will involve no penalty or loss of benefits to which I am otherwise entitled. I understand that I have not given up any of my legal rights or released these institutions from liability for negligence. I understand that I may withdraw from this study at any time without loss of benefits to which I am otherwise entitled. If I am participating in this research project to obtain course credit and I decide to withdraw from participating, I may not get course credit associated with the project.**

_____ _____

Research Participant Signature Date

_____

Printed Name

# Appendix C

# Instruments

## Age Group Evaluation and Description (AGED) Inventory

We are interested in how you would characterize the "average" or "typical" person over the age of 65. We realize that every human being is unique and that it is difficult to generalize about a particular group. However, it is also true that an "average" does exist for any group. Try to keep the **"AVERAGE" PERSON OVER THE AGE OF 65** in mind as you complete this inventory.

You will find a list of bi-polar adjectives (opposite traits), each pair accompanied by a scale. You are asked to place a mark along the scale at a point which, in your opinion, best describes the **"AVERAGE" PERSON OVER THE AGE OF 65.**

Here are some **EXAMPLES** of how to use the following scales:

If you feel that the **"AVERAGE" PERSON OVER THE AGE OF 65** is very close to one end of the scale you should place your mark as follows:

Talkative X ___ ___ ___ ___ ___ ___ Quiet

Or

Talkative ___ ___ ___ ___ ___ ___ X Quiet

---

If you feel that the **"AVERAGE" PERSON OVER THE AGE OF 65** is the other end of the scale (but not extremely close), you should place your mark as follows:

Talkative ___ X ___ ___ ___ ___ ___ Quiet

Or

Talkative ___ ___ ___ ___ ___ X ___ Quiet

---

If you feel that the **"AVERAGE" PERSON OVER THE AGE OF 65** is only slightly closer to one end as opposed to the other end (but is not really neutral), then you should place your mark as follows:

Talkative ___ ___ X ___ ___ ___ ___ Quiet

Or

Talkative ___ ___ ___ ___ X ___ ___ Quiet

---

The direction toward which you mark, of course, depends on which end of the scale seems most characteristic of **THE "AVERAGE" PERSON OVER THE AGE OF 65.** If you feel that the "average" person over the age of 65 is neutral on the scale (both sides equally associated with the person) then you should place your mark in the middle of the scale.

Talkative ___ ___ ___ X ___ ___ ___ Quiet

**IMPORTANT REMINDERS:**

1) Please place your marks on the lines provided
2) Please be sure to mark every scale--Do not omit any
3) Please place only one mark per scale.

Please mark each item as a separate and independent judgment. Do not try to remember how you marked earlier items even though they may seem to have been similar. It is your first impression or immediate reaction about each item that is wanted.

Now, with an **"AVERAGE" PERSON OVER THE AGE OF 65** in mind, please rate them on the following scales:

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| considerate | ___ | ___ | ___ | ___ | ___ | ___ | ___ | inconsiderate |
| independent | ___ | ___ | ___ | ___ | ___ | ___ | ___ | dependent |
| boastful | ___ | ___ | ___ | ___ | ___ | ___ | ___ | modest |
| hopeful | ___ | ___ | ___ | ___ | ___ | ___ | ___ | dejected |
| dishonest | ___ | ___ | ___ | ___ | ___ | ___ | ___ | honest |
| sexless | ___ | ___ | ___ | ___ | ___ | ___ | ___ | sexy |
| trustful | ___ | ___ | ___ | ___ | ___ | ___ | ___ | suspicious |
| inflexible | ___ | ___ | ___ | ___ | ___ | ___ | ___ | flexible |
| impatient | ___ | ___ | ___ | ___ | ___ | ___ | ___ | patient |
| expectant | ___ | ___ | ___ | ___ | ___ | ___ | ___ | resigned |
| other-oriented | ___ | ___ | ___ | ___ | ___ | ___ | ___ | self-oriented |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| unproductive | ___ | ___ | ___ | ___ | ___ | ___ | ___ | productive |
| insincere | ___ | ___ | ___ | ___ | ___ | ___ | ___ | sincere |
| active | ___ | ___ | ___ | ___ | ___ | ___ | ___ | passive |
| satisfied | ___ | ___ | ___ | ___ | ___ | ___ | ___ | dissatisfied |
| unsociable | ___ | ___ | ___ | ___ | ___ | ___ | ___ | sociable |
| sensitive | ___ | ___ | ___ | ___ | ___ | ___ | ___ | insensitive |
| timid | ___ | ___ | ___ | ___ | ___ | ___ | ___ | assertive |
| undignified | ___ | ___ | ___ | ___ | ___ | ___ | ___ | dignified |
| imaginative | ___ | ___ | ___ | ___ | ___ | ___ | ___ | unimaginative |
| foolish | ___ | ___ | ___ | ___ | ___ | ___ | ___ | wise |
| busy | ___ | ___ | ___ | ___ | ___ | ___ | ___ | idle |
| temperamental | ___ | ___ | ___ | ___ | ___ | ___ | ___ | even-tempered |
| involved | ___ | ___ | ___ | ___ | ___ | ___ | ___ | apathetic |
| generous | ___ | ___ | ___ | ___ | ___ | ___ | ___ | selfish |
| cautious | ___ | ___ | ___ | ___ | ___ | ___ | ___ | adventurous |
| demanding | ___ | ___ | ___ | ___ | ___ | ___ | ___ | accepting |
| optimistic | ___ | ___ | ___ | ___ | ___ | ___ | ___ | pessimistic |

## Relationship Closeness Inventory (RCI)

Now we would like to examine some aspects of your relationship with your closest grandparent. We would first like you to estimate the amount of time you typically spend alone with this person during the day. We would like you to make these time estimates by breaking the day into morning, afternoon and evening, although you should interpret each of these time periods in terms of your own typical daily schedule. (For example, if you work a night shift, "morning" may actually reflect time in the afternoon, but it is nevertheless time immediately after waking). Think back over the past week and write in the average amount of time, per day, that you spent alone with your closest grandparent during each time period. Please include any Internet or telephone communication in your total answer. You will then be asked to specify how much of this time was Internet or telephone communication. If you did not spend any time (including Internet and telephone communication) with your closest grandparent in some or all time periods, write _0_ hour(s) and _0_ minutes.

1. During the past week, what is the average amount of time , per day, that you spent alone with your closest grandparent in the **MORNING**?

   ____ hours ____ minutes, of which
   ____ hours ____ minutes was Internet communication and
   ____ hours ____ minutes was telephone communication

2. During the past week, what is the average amount of time , per day, that you spent alone with your closest grandparent in the **AFTERNOON**?

   ____ hours ____ minutes, of which
   ____ hours ____ minutes was Internet communication and
   ____ hours ____ minutes was telephone communication

3. During the past week, what is the average amount of time, per day, that you spent alone with your closest grandparent in the **EVENING**?

   ____ hours ____ minutes, of which
   ____ hours ____ minutes was Internet communication and
   ____ hours ____ minutes was telephone communication

The following is a list of different activities that people may engage in over the course of a week. For each of the activities listed, please check all of those that you have engaged in alone with your closest grandparent in the past week.

In the past week, I did the following activities alone with my closest grandparent (mark all that apply):

____ did laundry
____ watched TV
____ attended a non-class lecture or presentation
____ went to a grocery store
____ went to a museum/art show
____ attended class
____ cleaned house/apartment
____ worked on homework
____ discussed things of a non-personal nature
____ went to a movie
____ participated in a sporting activity
____ went to a play
____ visited family
____ went to a department, book, hardware store, etc.
____ exercised
____ went to a concert
____ wilderness activity (e.g., hunting, fishing)
____ played music/sang
____ prepared a meal
____ went to an auction/antique show
____ went for a walk/drive
____ went to a restaurant
____ discussed things of a personal nature
____ planned a party/social event
____ went on a trip
____ went to church or religious function
____ used the Internet
____ went to a clothing store
____ talked on the phone
____ ate a meal
____ outdoor recreation (e.g., sailing)
____ went to a bar
____ visited friends
____ played cards/board game
____ attended a sporting event
____ went on an outing (e.g., beach, zoo, picnic, winter carnival)
____ went dancing
____ went to a party

The following questions concern the amount of influence your closest grandparent has on your thoughts, feelings, and behavior. Using the 7-point scale below, please indicate the **EXTENT TO WHICH YOU AGREE OR DISAGREE** with each statement by writing the appropriate number in the space to the left of each statement.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| I strongly DISAGREE | | | | | | I strongly AGREE |

**My Closest Grandparent:**

(Please fill in the blanks with a number from 1-7)

1. _____ will influence my future financial security.
2. _____ does *not* influence everyday things in my life.
3. _____ influences important things in my life.
4. _____ influences which parties and other social events I attend.
5. _____ influences the extent to which I accept responsibilities in our relationship.
6. _____ does *not* influence how much time I spend doing household work.
7. _____ does *not* influence how I choose to spend my money.
8. _____ influences the way I feel about myself.
9. _____ does *not* influence my moods.
10. _____ influences the basic values that I hold.
11. _____ does *not* influence the opinions that I have of other important people in my life.
12. _____ does *not* influence when I see, and the amount of time I spend with, my family.
13. _____ influences when I see, and the amount of time I spend with, my friends.
14. _____ does *not* influence which of my friends I see.
15. _____ does *not* influence the type of career or career study I have.
16. _____ influences or will influence how much time I will devote to my career.
17. _____ does *not* influence my chances of getting a good job in the future.
18. _____ influences the way I feel about the future.
19. _____ does *not* have the capacity to influence how I act in various situations.
20. _____ influences and contributes to my overall happiness.
21. _____ does *not* influence my present financial security.
22. _____ influences how I spend my free time.
23. _____ influences when I see them and the amount of time that the two of us spend together.
24. _____ does *not* influence how I dress.
25. _____ influences how I decorate my home (e.g. dorm room, apartment, house)
26. _____ does *not* influence where I live.
27. _____ influences what I watch on T.V.

Now we would like you to tell us how much your closest grandparent affects your future plans and goals. Using the seven-point scale below, please indicate the **DEGREE TO WHICH YOUR FUTURE PLANS AND GOALS ARE AFFECTED** by your closest grandparent by writing the appropriate number in the space corresponding to each item. If an area does not apply to you (e.g., you have no plans or goals in that area) write a 1.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| I strongly DISAGREE | | | | | | I strongly AGREE |

**My closest Grandparent affects:**

(Please fill in the blanks with a number from 1-7)

1. _____ my vacation plans
2. _____ my marriage plans
3. _____ my plans to have children
4. _____ my plans to make *major* investments (house, car, etc.)
5. _____ my plans to join a club, social organization, church, etc.
6. _____ my school related plans
7. _____ my plans for achieving a particular financial standard of living.

## Thought Listing

We are now interested in everything that goes through your mind when you think of **older adults.** We would like for you to record each thought or idea you have about older adults. Your thoughts may be positive, negative or neutral. **Please put only one thought or idea on a line.** Please state your thoughts and ideas as concisely as possible...a phrase or word is sufficient. **IGNORE SPELLING, GRAMMER AND PUNCTUATION.** We have deliberately provided more space than we think most people will need to insure that everyone will have plenty of room, so don't worry if you don't fill every space. **Please spend 3 minutes writing your thoughts-we will tell you when the three minutes is up.** Please be completely honest and list all of the thoughts regarding older adults.

# My thoughts about older adults are...

We are now interested in everything that goes through your mind when you think of your closest grandparent. Now, please think of your **closest grandparent** again. We would like for you to record each thought or idea you have about this grandparent. Your thoughts may be positive, negative or neutral. Please put only one thought or idea on a line. Please state your thoughts and ideas as concisely as possible...a phrase or word is sufficient. **IGNORE SPELLING, GRAMMER AND PUNCTUATION.** We have deliberately provided more space than we think most people will need to insure that everyone will have plenty of room, so don't worry if you don't fill every space. **Please spend 3 minutes writing your thoughts-we will tell you when the time is up.** Please be completely honest and list all of the thoughts regarding your "closest grandparent".

## My thoughts about my closest grandparent are...

**FINAL INSTRUCTIONS**

These **FINAL 2 STEPS** are to be completed when you have listed your thoughts about your grandparent.

Please go back to the page where you wrote your thoughts about older adults. We would like you to go back and rate each of the ideas you wrote down. In the left margin beside each idea that you wrote down, we would like to know if the idea was **(+) favorable** towards older adults, **(-) unfavorable** towards older adults, or **(0) neither favorable or unfavorable** towards older adults. If the idea that you wrote down seemed to be favorable towards older adults, you should place a + (plus) in the left margin beside the idea; if the idea you wrote down seems unfavorable towards older adults you should place a – (minus) in the left margin beside that idea; and if the idea was neither favorable or unfavorable you should put a 0 (zero) in the left margin. Please go back and rate each idea listed by putting a +, -, or 0 in the left margin. **Please be sure to rate each thought you wrote down**. Please also be honest in your ratings.

**When you are done rating older adults, please repeat the above procedure for your closest grandparent.**