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UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

APPLYING THE ECOLOGICAL PERSPECTIVE TO STEREOTYPES: AN
INVESTIGATION OF OLDER ADULT STEREOTYPES AS A FUNCTION OF
INTERACTION AND CONTEXT

A Dissertation

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

degree of

Doctor of Philosophy

by

ANNETTE LEIGH FOLWELL

Norman, Oklahoma

1997

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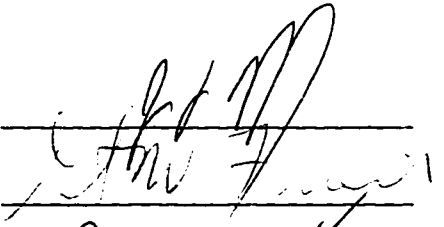
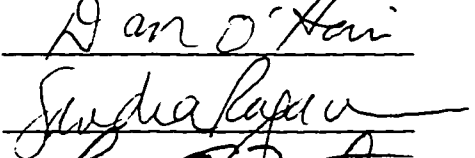
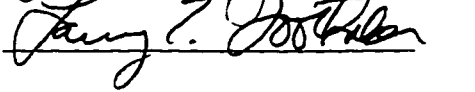
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APPLYING THE ECOLOGICAL PERSPECTIVE TO STEREOTYPES: AN
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INTERACTION AND CONTEXT

A Dissertation APPROVED FOR THE
DEPARTMENT OF COMMUNICATION

BY


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APPLYING THE ECOLOGICAL PERSPECTIVE TO STEREOTYPES: AN
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Abstract

This dissertation investigated whether context and interaction affected younger adults' perceptions of older adult stereotypes. The ecological perspective (see Gibson, 1966, 1979; McArthur & Baron, 1983) was adopted for this study and provided a theoretical basis in which the effects of context on older adult stereotypes can be examined. The Age Group Evaluation and Description Inventory (Knox, Gekoshi, & Kelly, 1995) was employed to assess stereotypes of and attitudes toward older adults. The Language in Adulthood (LIA) Scale (Ryan, See, Meneer, & Trovato, 1992) was used to measure receptive and expressive language skills in older adults.

Six older adults were recruited as confederates and agreed to be videotaped. A validation test of these six older adult videotapes allowed for selection of two confederates, one male and one female, to become the older adult targets for this study. These two older adult targets agreed to be filmed in three contexts for the purposes of this study. Younger adult participants (N = 180), aged 18-32 years old, rated the videotapes.

Two hypotheses were tested. The first hypothesis stated that younger adults' perceptions of attitudes associated with older adults, as measured by the Age Group Evaluation and Description (AGED) Inventory scores (Knox et al., 1995), would differ as a function of context. Hypothesis One also had a subhypothesis that stated younger adults' perceptions of attitudes associated with older adults would differ as a function of gender. The second hypothesis asserted that younger adults' perceptions of older adults' language abilities would differ as a function of context as indicated by the Language in Adulthood (LIA) Scale scores (Ryan et al., 1992). Further, a subhypothesis of Hypothesis Two stated that younger adults' perceptions of older adults' language abilities would differ as a function of gender; that is, younger adults will associate different language abilities with female older adults than male older adults.

Findings from this dissertation support all hypotheses. A significant difference was detected in younger adults' perceptions of attitudes associated with older adults. Older adults in an interactive context were rated more positively than older adults in noninteraction and neutral contexts; also, older adults in noninteractive contexts were rated more positively than older adults in a neutral context. Further, a significant difference was found between younger adults' perceptions of attitudes associated with female older adults and male older adults; females were rated more positively than males. Finally, a significant difference was discovered in how younger adults perceive older adult language abilities across contexts; older adults in an interactive

context were evaluated as having better language abilities than older adults in a neutral context.

These results are discussed as they relate to the ecological perspective (Gibson, 1966, 1979; McArthur & Baron, 1983) and other earlier older adult research. Implications of this study are related to the communication discipline. Limitations are addressed and directions for future research are suggested.

APPLYING THE ECOLOGICAL PERSPECTIVE TO STEREOTYPES: AN
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Chapter 1

REVIEW OF LITERATURE

Introduction

Adults, aged 65 years and older, constitute approximately 32 million people or about 12.8% of the United States population (American Association of Retired Persons, 1994). By the year 2000, the older adult population will number over 35.3 million people (American Association of Retired Persons, 1994). This is a considerable segment of the population, and certain beliefs, attitudes, and stereotypes of older adults are prevalent across all stages of the life span (e.g., Burke, 1982; Hummert, Garstka, Shaner, & Strahm, 1995a; Rose-Colley & Eddy, 1988). These attitudes and stereotypes associated with older adults are social cognitions that are both positive and negative in nature (e.g., Hummert, 1994a; Schmidt & Boland, 1986).

These attitudes, social cognitions, and stereotypes of older adults influence not only the perceptions about older adults, but also influence how individuals communicate with older adults (Hummert, Shaner, & Garstka, 1995b; Nussbaum, Hummert, Williams, & Harwood, 1996; Ryan, See, Meneer, & Trovato, 1992). Numerous researchers point to the foundation of social cognition in communication

theories, such as Giles, Mulac, Bradac, and Johnson's (1987) communication accommodation theory and Delia, O'Keefe, and O'Keefe's (1982) constructivist approach, to illustrate the importance and influence of social cognition of the communication process (e.g., Hummert, 1994b; Nussbaum et al., 1996; Ryan et al., 1992). Beliefs about an older adult's language abilities provide a means of assessing perceived communicative competence (Giles, Coupland, Wiemann, 1992; Hummert, 1994a; Ryan & Cole, 1990; Ryan et al., 1992).

Social science researchers have produced a number of studies that investigate attitudes and stereotypes associated with older adults (e.g., Ashmore & Del Boca, 1981; Brewer, Dull & Lui, 1981; Crockett & Hummert, 1987; Hamilton & Troiler, 1986; Hummert, 1990a,b; Schmidt & Borland, 1981). Several theories, such as communication accommodation theory (Giles et al., 1987) and cognitive perspective of stereotyping (Ashmore & Del Boca, 1981), have provided a theoretical basis to guide older adult stereotype research. But to date, no older adult stereotype research studies have investigated the effects of context on older adult stereotypes. In addition, a theory to guide these investigations is lacking. The purpose of this project is two-fold. First, the study will help to determine whether the ecological perspective, which considers environmental context and cues, can provide a theoretical basis for older adult attitudinal and stereotype research. Second, because of the ecological perspective and its consideration of environmental factors (i.e., context), older adult stereotypes across contexts will be investigated in conjunction with attitudes

associated with and language beliefs about older adults.

The first chapter focuses on a literature review in four parts: (a) a review of the conceptual frameworks and research regarding older adult stereotype research; (b) an articulation of the basic tenets and advantages of ecological theory; (c) an examination of the benefits of employing the ecological perspective in older adult stereotype research; and (d) a rationale that argues for the application of the ecological perspective to older adult stereotype research.

Conceptual Frameworks of Stereotypes

Currently, there are three conceptual frameworks that have been used as the theoretical basis for stereotype research: sociocultural, psychodynamic, and cognitive (Ashmore & Del Boca, 1981; Hummert et al., 1995b). These conceptual frameworks will be explained by highlighting the functions of each framework and discussing prior stereotype research that has employed that particular framework.

The sociocultural framework perspective defines stereotypes as generalized beliefs about a group that are held by most people in a particular culture. Stereotypes are part of a culture; and, as individuals are socialized in that culture, they accept and reinforce the stereotypes that found in that culture (Ashmore & Del Boca, 1986). The sociocultural approach to stereotyping performs two functions at the individual and societal levels: (a) stereotypes serve a utilitarian function (i.e., stereotypes specify how individuals and groups should behave and be treated); and (b) stereotypes have a value-expressive function which allows individuals to state beliefs that are commonly

held in society and gain social acceptance by expressing these shared views (Ashmore & Del Boca, 1986).

Early research regarding stereotypes and attitudes towards older adults employed this perspective of stereotypes (for review, see Crockett & Hummert, 1987). For example, Rosencranz and McNevin (1969) investigated undergraduate students attitudes towards the elderly. Specifically, this study tested a scale that measures the respondent's conception of other individuals and examined how younger adults think of older adults.

Hummert et al. (1995b) state that stereotypes in the sociocultural framework are seen as a negative form of evaluation. Further, as individuals unconsciously adopt stereotypes that reinforce negative cultural practices, they perpetuate the existing cultural patterns (Ashmore & Del Boca, 1986; Hummert et al., 1995b). For example, when individuals are practicing stereotypes, they are perpetuating cultural patterns of prejudice and discrimination.

The second framework for stereotype research employs the psychodynamic perspective. This perspective dictates that stereotypes arise to meet inherent personality needs of the individual (Ashmore & Del Boca, 1981; Hummert et al., 1995b). This view of stereotypes suggests that the actual stereotyping of a particular group serves a psychological defense function for an individual; stereotyping allows an individual to separate people into groups and make distinctions between "us" and "them."

Several researchers have utilized the psychodynamic conceptual framework of stereotyping. For instance, Kearl (1982) investigated the personal and social effects of old age among the elderly. In particular, he examined how older adults' view cultural, old age stereotypes. Kearl (1982) concluded that elder stereotypes serve psychological or sociological functions for older adults to which to compare themselves. This finding illustrates the separation of "us" from "them," which is the essence of the psychodynamic perspective of stereotyping.

Finally, the cognitive perspective defines stereotypes as person perception schemas based upon categorization principles (Ashmore & Del Boca, 1981; Hamilton & Trolie, 1986; Hummert et al., 1995b). Within this conceptual framework, an individual's capacity for processing information is limited; one's rational capabilities are also bound (Ashmore & Del Boca, 1986; Carroll & Payne, 1976). Stereotypes are seen as a cognitive process or structure that help an individual to process information. Thus, stereotypes are schemata and these schemata are organized knowledge structures which facilitate interpretation of new information (Fiske & Taylor, 1991).

The cognitive perspective recognizes that there is a cultural basis to stereotypes, but only to the extent that they exist in cognitive representations (Hummert et al., 1995b). The cognitive framework of stereotypes does not dictate that stereotypes are necessarily negative; rather, stereotypes are knowledge structures that people employ to process information in a social situation and have the potential to be either positive or negative (Hummert et al., 1995b).

For example, Hummert and her colleagues employ the cognitive perspective for their older adult stereotype research. Hummert's research illustrates both positive and negative stereotypes that are associated with older adults (see Crockett & Hummert, 1987; Hummert, 1990a,b; 1994; Hummert et al., 1995a,b). Also, Schmidt and Borland (1986) and Downs and Walz (1981) employ the cognitive framework of stereotyping in their older adult stereotype research.

In sum, three conceptual frameworks have been offered to facilitate the understanding of attitudinal and stereotype research. Both the psychodynamic and sociocultural frameworks presume that stereotypes are negative in nature, whereas the cognitive conceptual framework acknowledges that stereotypes can be both positive and negative. Most current stereotype research utilizes the cognitive perspective of stereotypes because it allows for more explanatory power for research and has more relevance to the study of how stereotypes may affect communication (Hummert et al., 1995a, b).

Review of Older Adult Stereotype Literature

This literature review addresses two major areas of older adult research. First, a review of traits and stereotypes associated with older adults will be discussed. Second, the effects of stereotypes will be examined; specifically, research regarding language beliefs about older adults and patronizing talk will be reviewed.

Traits and Stereotypes Associated with Older Adults

Adopting the cognitive conceptual framework to examine stereotypes,

Hummert et al. (1995b) state that stereotypes can be viewed at two different levels. The first level of stereotypes includes the basic individual traits that comprise the schemata associated with older adults. The second level of stereotypes involves the way in which these traits are organized into subcategories of typical representations of older adults; in other words, the schemata that individuals associate with older adults. These levels represent both the specific traits and generalizations of older adult stereotypes.

The first level of research on older adult stereotypes is concerned with perceived traits of older adults. These traits are described as personality characteristics of older adults (Hamilton & Trolie, 1986; Hummert, 1994a; Hummert et al., 1995b). Studies examining the traits associated with older adults report both positive and negative traits (e.g., Hummert, 1990; Labouvie-Vief & Baltes, 1976; Mueller, Wonderlich & Dugan, 1986). One exemplary study conducted by Schmidt and Borland (1986) had young adults write down all the words they associate with the “typical” older adult. This study produced a list of 99 traits. The list includes both positive and negative traits. For example, older adults are seen as “distinguished-looking,” a positive physical trait, and having “poor posture,” a negative physical trait (Schmidt & Borland, 1986). Hummert et al. (1995b) replicated the structure of Schmidt and Borland’s (1986) study employing young, middle aged, and older adults as participants. Hummert et al.’s (1995b) study produced 90% of the same traits as Schmidt and Borland’s study and 21 additional traits. While Hummert et al. (1995b)

found both positive and negative traits, their study produced additional positive traits that were derived from the middle aged and older adult participant responses.

Overall, these studies illustrate the complexity of traits associated with older adults. Older adults are seen as “miserable” and “happy” (Schmidt & Borland, 1986) and “dependent” and “independent” (Hummert et al., 1995b). Because of the divergent traits associated with older adults, it is unlikely that all these traits represent the same older adult (Hummert et al., 1995b). Therefore, it is likely that different traits can be grouped into distinct categories that represent typical views, or prototypes, of older adults. These distinct categories represent multiple schemata, or stereotypes, of older adults which is the second level of analysis that Hummert et al. (1995b) suggest.

Brewer, Dull, and Lui (1981) examined the multiple conceptions of older adult stereotypes. The researchers selected three stereotypes of older adults: (a) Grandmother, a nurturing, family-oriented female; (b) Elder Statesman, a distinguished older man; and (c) Senior Citizen, an isolated, inactive older adult of either sex. The researchers chose photographs and traits that represented the three older adult stereotypes and asked young adult participants to sort the photographs and traits into similar groupings. Results of these groupings corresponded to the original stereotypes of the Grandmother, Elder Statesman, and Senior Citizen.

One study conducted by Downs and Waltz (1981) investigated young adults' perceptions and attitudes toward older adults and the effect that intergenerational

contact has on these attitudes. Seventy-nine undergraduates who maintained frequent contact with at least one grandparent were asked to complete the Older Persons Rating Scale. Results indicate that intergenerational contact on a regular, familial basis enhances positive views of older adults; thus, young adults who have regular contact with a grandparent hold a more positive image of older adults.

Burke (1982) assessed young children's (aged four to seven years old) perceptions and attitudes of older adults. She had the participants view photographs that included both young adults (aged 25-35 years) and older adults (aged 65 years and older) and asked a series of questions concerned with age discrimination tasks and sociometric questions. Results indicate that children as young as six years old can discriminate between young and older adults. Further, children more readily associate photographs of older adults with words such as "sad," "lonely," and "not busy" whereas young adults are connected with "busy," "knowledgeable," and "happy." Burke (1982) also reported that 66% of the children preferred not to grow old.

In 1984, Brewer and Lui replicated Brewer et al.'s (1981) study, but asked older adult women to sort the photographs and traits associated with older adults into similar groupings. The subjects produced several groupings found in Brewer et al. (1981), but the results also produced significantly more categories of older women. This finding suggests that older adult women have a more complex view of older adults than did the young adults used in the original Brewer et al. (1981) study.

Schmidt and Borland (1986) asked participants to sort 99 traits generated by

younger adults that are associated with older individuals. Results indicate 12 specific groupings of traits, or stereotypes, and the researchers attached a label to each of these groupings. These labels include four positive stereotypes (Perfect Grandparent, Liberal Matriarch/Patriarch, John Wayne Conservative, and Sage) and eight negative stereotypes (Severely Impaired, Mildly Impaired, Despondent, Recluse, Vulnerable, Shrew/Curmudgeon, Bag Lady/Vagrant, and Nosy Neighbor). These results reinforce research findings regarding traits that are associated with older adults. Primarily, there are both negative and positive stereotypes of older adults—thus adding complexity to the view of an older adult. Additionally, these results indicate that there are more negative stereotypes than positive stereotypes of older adults.

Hummert (1990a) investigated young adults' perceptions of older adult stereotypes. She asked college-aged participants to sort 84 traits selected from the Schmidt and Borland (1986) study into similar categories. Hummert's (1990a) findings include three positive older adult stereotypes (John Wayne Conservative, Liberal Matriarch/Patriarch, and Perfect Grandparent) and seven negative stereotypes (Severely Impaired, Shrew/Curmudgeon, Recluse, Despondent, and Vulnerable). Among these ten stereotypes generated by Hummert's (1990) research, eight match Schmidt and Borland's (1986) stereotypes. Of these eight stereotypes, three positive stereotypes (John Wayne Conservative, Liberal Matriarch/Patriarch, and Perfect Grandparent) and five negative stereotypes (Severely Impaired, Shrew/Curmudgeon, Recluse, Despondent, and Vulnerable) are found in both Hummert's (1990) and

Schmidt and Borland's (1986) studies.

In summary, research regarding older adult traits, schemata, and stereotypes illustrate a dual nature in the cognitive framework of stereotyping. This dual nature is represented by individuals having both positive and negative stereotypes associated with older adults and the presence of both positive and negative stereotypes (e.g., Brewer et al., 1981; Brewer & Lui, 1984; Hummert, 1990; Schmidt & Borland, 1986). Further, both positive and negative traits and stereotypes of older adults are perceived across the life span, from young children (e.g., Burke, 1982) to middle-aged (e.g., Downs & Waltz, 1981; Schmidt & Borland, 1986) and into older adulthood (e.g., Brewer & Lui, 1984). Hummert et al. (1995b) state that stereotypes reflect beliefs of a particular society, but only exist within the cognitions of members of that society (see also Ashmore & Del Boca, 1981). Therefore, because stereotypes are cognitive in nature rather than tangible traits, stereotypes associated with older adults vary from person to person.

Language Beliefs about Older Adults

Another area of older adult research investigates the language beliefs association with older adults and patronizing talk (i.e., elderspeak) to older adults. Two studies have considered younger and older adult social perceptions of older adult language performance (Hummert et al., 1995b; Ryan et al., 1992).

Ryan et al. (1992) examined the differences between younger and older adults in self and social perceptions of language performances. Subjects were asked to think

of two targets, the “typical” 25 and 75 year old adult, and complete the Language in Adulthood (LIA) scale that measures language performance beliefs. Participants reported their own language beliefs (i.e., how they would speak to a 25 and 75 year old adult) and their social perceptions of the target’s language performance (i.e., how they believe a 25 and 75 year old adult would speak). The authors found that younger adults report less problems with language performance than older adults. Further, younger adults (i.e., the 25 year old target) are perceived as having less problems with language performance in general than older adults (i.e., the 75 year old target). Older adults were rated higher than younger adults on “telling enjoyable stories” and “sincere when talking.”

Hummert et al. (1995b) continued Ryan et al.’s (1992) research involving the LIA scale. Specifically, Hummert et al. (1995b) asked young, middle-aged, and older adults about their language skills and the language skills of four older adult targets. The authors used four older adult prototypes that represented two negative and two positive older adult stereotypes. Findings indicate that older adults report having more language problems than younger and middle-aged adults. Additionally, different older adult stereotypes elicit different language performance beliefs from respondents. Hummert et al. (1995b) conclude that beliefs about language performance vary with older adult characteristics and do not derive solely from their categorization as older adults.

Summary

In summary, most of the attitudinal and stereotype research examining older adult stereotypes is framed within the cognitive perspective. However, there is a lack of theory and research investigating how context affects the formation or recall of older adult stereotypes. Specifically, attitudinal and stereotype research has not considered how an individual forms or recalls an attitude towards another person or what cues or signs go into the formation/recollection of that stereotype. For instance, research has not investigated whether older adult stereotypes vary as a function of context (i.e., environmental setting); in other words, it is not known what physical or tangible cues from the context people use to formulate their attitudes toward older adults.

Research has considered the cues that enact attitudes and stereotypes of older adults in communication encounters. For example, Berry and McArthur (1985, 1986) and Hummert (1994) have considered physiognomic cues, such as eye position, degree of wrinkles, eye drop, and amount of hair greying, in previous research studies; findings from these studies indicate those older adults who are perceived as having younger physiognomic cues (e.g., large eyes, less wrinkles, less eye drop, and little grey hair) are seen more favorably than those older adults exhibiting “older” physiognomic cues. Further, other lines of research have investigated vocal characteristics of older adults that enact older adult stereotypes (Hummert, 1994c).

But research has not investigated a variety of variables including: what effect

does context play in formulating stereotypes; can older adult stereotypes change from context to context; can interaction within the context change older adult stereotypes; do these cues (i.e., context and interaction) change older adult stereotypes across the life span? Some of these research questions can be addressed if there is a theoretical basis to stereotype research. In the next section, the ecological perspective is articulated and offered as providing explanatory power for attitudinal and stereotype research.

Basic Tenets and Advantages of the Ecological Perspective

Gibson's (1966, 1979) ecological theory is a multidisciplinary approach to the study of living systems—their environment and the reciprocity between the two entities (Lombardo, 1987). Ecological science examines the biological bases of energy transactions between animals and the physical environment. This ecological science approach was extended to the discipline of psychology during the 1970's and 80's by several psychologists (Gibson, 1966, 1979; Shaw, Turvey & Mace, 1982). Gibson believes that psychology should not only study the individual, but also the environment that surrounds the individual. In other words, the individual and the environment should be examined together in order to better explain social phenomena.

In the following section, four primary tenets of the theory will be outlined: (a) the adaptive function of social perception; (b) formation of perceptions through physical events; (c) environmental affordances offered by environmental

surroundings: and (d) individuals' perceptual attunements to stimuli (McArthur & Baron, 1983). Further, the major advantages that the ecological perspective affords social science research will be articulated.

Adaptive Function

The first tenet of the ecological approach to social phenomena assumes that perception serves an adaptive function (McArthur & Baron, 1983). Gibson (1979) states that the environment can offer either "benefit or (cause) injury" to an individual (p. 143). Fundamentally, an individual's perceptions aid in the discovery and adjustment to the functional and pragmatic qualities of one's environment. Therefore, perception aids one's actions by providing information that leads to goal attainment as well as survival. This view has important implications for social perception (McArthur & Baron, 1983). This view of perception as an adaptive function focuses on what information is being processed rather than the traditional approach of how processing occurs (see Shaw & Bransford, 1977). Adopting this ecological view, perception leads to the following three tenets that accompany the adaptive nature of interaction.

Physical Events

The ecological perspective states that physical events are the units of information within the encounter. The concept of event is a dynamic and ever changing stimulus rather than a static and rigid stimulus. McArthur and Baron (1983) suggest that these dynamic events change during "space and time and come in many

different forms, such as fast or slow (e.g., smiling versus aging), rigid or elastic (e.g., rotating versus stretching), and reversible or nonreversible (e.g., rolling versus growing)” (p. 216). These physical events occur in both the environmental and social realms of experience. Therefore, events are both environmental (e.g., the dimensions of a room) and social (e.g., who is standing in the room).

These dynamic physical events provide individuals with information that extends the static information that one perceives from the environment. For instance, static information may be derived from a particular place, such as an individual’s place of employment, but this information remains constant. Dynamic information can change during an interaction. One example of dynamic information is a person’s emotions; she may be angry at the onset of a conversation, but her emotions may change to acceptance as the encounter progresses. Interestingly, individuals can create events for themselves; in other words, a person may perform exploratory or investigative behaviors that formulate events, such as asking a question that may change an event.

Another important aspect of an event is that both structural and transformational invariants occur. According to the ecological perspective, invariants are those elements present in an event. Structural invariants are those elements that remain the same in an event, such as the dimensions of a room or the color of the walls. Transformational invariants are those elements that change in an event, such as a person’s facial expressions or a person’s mood. Both structural and transformational

invariants are present in all forms of events.

Environmental Affordances

In ecological psychology, Gibson (1979) defines environmental affordances as “what it (the environment) offers the animal, what it provides or furnishes, either for good or ill” (p. 127). The ecological approach is not concerned with all information present in the event; instead, it presupposes that only useful information is part of an individual’s perception. This approach emphasizes only the information that is “picked up” by the individual because it is valuable in some manner to perception. The usefulness of information depends upon on individual’s perception of relevance to his or her goals and actions (McArthur & Baron, 1983).

Gibson’s notion of affordances is a functional analysis of the environment (Lombardo, 1987). Gibson (1979) points out that affordances are not subjective values that are dependent on the emotional state or needs of an individual. Rather, they are relational properties of the environment and exist as opportunities. Individuals have the opportunity or choice of whether or not to use the affordances made by the environment.

Perceptual Attunements

Because of the affordances provided by the environment, the ecological approach to social phenomena presumes a match between what an individual perceives (i.e., the useful information “picked up” by an individual) and what is being perceived (i.e., the affordances in the environment). In other words, there is a

corresponding fit between an individual's receptive capabilities and the information that stimulates one's perceptions.

Gibson (1979, 1966) illustrates that these perceptual attunements are either biological in nature or socially learned. For example, when a woman is born without the ability to see, other biological perceptions, such as hearing, may be heightened due to the lack of one form of perception gathering. In addition, these perceptual attunements can be derived from "education of attention" (Gibson, 1966, p. 142; McArthur & Baron, 1983). Perceptual attunements, or the information that individuals distinguish during a particular event, may be discerned as a function of perceptual learning, expectations, actions, or goals.

Advantages of the Ecological Perspective

There are several advantages that ecological theory offers to the research endeavors of attitudinal and stereotype research. Current research in social perceptions has centered on the cognitive processing of information, specifically how schemata influence our interpretations of the social environment (Hummert et al., 1995b; McArthur & Baron, 1983). By applying ecological theory to social perceptions, the meaning that is communicated by social events can be uncovered. In other words, an individual's movements, gestures, voice, and facial appearance can communicate one's intentions or emotions, or possibly the relationship held with another individual (McArthur & Baron, 1983, p. 217).

The ecological approach to social perceptions emphasizes the dynamic (i.e.,

changing) stimulus that is present in the environment during a particular event. Often in attitudinal and stereotype research, written summaries or photographs are offered as stimuli. The ecological approach to social perceptions allows for examination of the dynamic occurrences in the environment. Because of the view of dynamic stimuli, the research methods employed to study attitudes and stereotypes must change. In other words, for social scientists to study social perceptions, the subjects must have a chance to observe people and their behavior in an environment. The ecological approach advocates the interconnectedness between action and perception.

Valence, through the concept of environmental affordances, is another advantage that the ecological perspective can offer to social phenomena. Valence refers to the relevance or importance of information perceived in particular situations. Thus, the degree to which an individual perceives environmental affordances is dependent upon what is important for that person in that particular situation. Furthermore, the ecological perspective acknowledges the role that valence plays in attitudes and perceptions; the ecological approach recognizes that certain affordances granted by the environment are more important or valent during situations. Behaviors granted by environmental affordances may be specific to certain situations and the other people present in a particular situation. For example, a woman may make the affordance of allowing a man to swear in front of her because that man is her husband; but that same woman may not make the same affordance to another man, especially if that man is her teen-aged son. In this situation, the behaviors that were

afforded by the woman were different because of the people involved in the event.

This example can be extended to particular situations; for instance, woman's affordance of allowing her husband to swear may change from home to church.

An additional advantage of the ecological approach is the idea that individuals interpret and understand only relevant information, not all possible information, that can help them adapt to the situation at hand. McArthur and Baron (1983) state that particular social properties should be more readily available to individuals; for example, "emotions such as anger and fear should be most readily perceived because they are most essential to adaptive action on the part of the perceiver" (p. 219). This suggests that not only can these social properties, such as anger and fear, change from situation to situation and time to time, but also that these properties may be perceived differently by different individuals. Further, a person's ability to detect these properties of a social phenomenon may change across the life span. A child's ability to detect anger may be very different from a middle-aged person's ability to detect the same emotion.

In summary, the ecological approach to social phenomena offers several advantages to social science researchers who are investigating attitudes and stereotypes held by individuals. First, the ecological perspective highlights the dynamic, transforming stimuli that are present in a given situation; this approach recognizes that perceptions change as the event unfolds, emphasizing the interconnectedness between action and perception of an event. Therefore, researchers

must allow their subjects to observe people, their behavior, and the context in which these things occur. Second, the ecological approach to perceptions makes an allowance for valence and recognizes that certain perceptual cues will be more readily perceived and more important in particular events and contexts. Thus, social scientists should consider the situation and the circumstances involved in the social phenomena under study; further, researchers should consider what perceptual cues are important in each different context. Finally, researchers should consider that individuals perceive relevant information, not all information present in an event, and that these individuals may perceive social phenomena differently. Additionally, researchers should employ a life span approach to social perceptions; this approach can illustrate differences in the abilities of individuals to perceive and process relevant adaptive information across the life span.

Benefits of Applying the Ecological Perspective to Stereotype Research

From the discussion above, it is clear that the application of the ecological approach to older adult stereotypes can yield benefits for this line of research. This section of the chapter articulates four gains the ecological perspective offers to this line of research. Then, the ecological perspective will be applied to several current older adult stereotype studies to illustrate the benefits of this perspective.

First, recall that the ecological perspective assumes that perception serves an adaptive function for an individual and helps to facilitate goal attainment. If this perspective is adopted, the focus of attitudinal and stereotype research now changes

from how processing occurs to what information is being processed. In terms of older adult stereotype research, instead of examining how certain cues, such as vocal qualities and physiognomic cues, enact stereotypes (i.e., how the process of stereotyping occurs), the research concentration is placed on what specific types of information are being processed, such as contextual cues, nonverbal cues, and verbal elements. By examining what types of information, such as interaction and context, are being processed in order to formulate and enact stereotypes, an expanded understanding of how stereotypes are formed and enacted during interactions can be gained.

Second, the ecological perspective's concept of event adds considerable depth to attitudinal and stereotype research. By considering the information present in the encounter as a physical event that is dynamic in nature, a more extensive representation of what occurs in human interaction can be gleaned. Further, by considering the events that transpire during an interaction (i.e., an exchange of information between two people), examination of the process of attitude and stereotype formulation and enactment can be investigated. Thus, research investigating attitudes and stereotypes of older adults can focus on how attitudes and stereotypes change during the course of interaction with older adults. While some individuals' attitudes and stereotypes of older adults may remain constant, some may change with information that is revealed as the encounter progresses.

Another benefit that the ecological perspective offers to older adult stereotype

research is that of environmental affordances. When the ecological perspective is adopted, the advantages are two-fold. First, researchers concentrate their research efforts on determining what events trigger older adult stereotypes. Instead of investigating nonverbal cues chosen by researchers, studies investigate what cues in particular contexts trigger older adult stereotypes. For instance, instead of focusing on how physiognomic cues activate older adult stereotypes (see Hummert, 1994), a study can take a more dynamic approach and investigate what nonverbal and verbal elements trigger and stimulate older adult stereotypes in a variety of contexts, such as a nursing home versus an employment setting.

By conducting such investigations, the second benefit regarding environmental affordances will be obtained—specifically, researchers can determine what information is being perceived by individuals when they encounter older adults. The ecological perspective assumes that only relevant information is perceived and processed by individuals. If researchers determine what information is relevant to the enactment of stereotypes (i.e., determine what cues of older adults are the foci for one's perceptions), then a researcher can concentrate on the significant variables that formulate and affect attitudes and stereotypes associated with older adults.

Finally, affordances, as a type of behavior evidence, may be a better measure than the trait approach. The trait approach provides abstract properties associated with an individual and these traits can change from context to context. The affordance approach to social phenomena, on the other hand, considers context, including both

the environmental and social aspects. For example, the trait of “understanding” that is associated with the Perfect Grandparent older adult stereotype is an abstract attribute (see Hummert, 1990a; Schmidt & Borland, 1986); but if the ecological approach is implemented, this abstract trait could be put in a particular situation. For example, will the Perfect Grandmother be understanding when her young granddaughter steals a candy bar from the grocery store versus understanding when her teen-aged grandson impregnates his fifteen year old girlfriend? By placing the trait of “understanding” into specific contexts and events, researchers can determine what affordances the Perfect Grandmother makes in each situation. Thus, a more accurate depiction of older adult stereotypes is gained. Now that four benefits of the ecological approach have been articulated, direct application of ecological theory will be made to current older adult stereotype research.

Applying the Ecological Perspective to Older Adult Stereotype Research

First and foremost, the application of the ecological perspective to older adult research provides a theoretical basis for this line of research. Currently, research is conducted within a cognitive conceptual framework (Hummert et al., 1995b), assuming that stereotypes are organized knowledge structures that facilitate the interpretation of new information (Fiske & Taylor, 1991). The ecological perspective does not deny this cognitive view of the functions that stereotypes perform; rather, this perspective provides a broader, more complete examination of what constitutes and triggers older adult stereotypes by focusing on the individual as well as the

environment (Gibson, 1966, 1979).

Second, the ecological perspective adds a new dimension to the function that stereotypes perform—namely, to adapt to the individuals and the environment. Instead of just stating that older adult stereotypes perform a cognitive function (i.e., interpretation of new information), it states that they also serve an accommodating and modifying function to help adjust to individuals and the environment. This adaptive function centers on the verbal and nonverbal cues and elements that are being processed in order to derive, formulate, and trigger older adult stereotypes. Thus, research which focuses on how older adult stereotypes are activated (see Hummert, 1994a; Hummert et al., 1995b) can also investigate what elements or characteristics are perceived, interpreted, and constructed into older adult stereotypes. By focusing research efforts on processes such as these, a more complete view of the entire stereotype process can be realized.

Further, the ecological perspective can convey the importance of dynamic events in older adult stereotype research. To date, research has not considered how stimuli change during the course of interaction. Instead, research has assumed that stereotypes are static and remain constant over time and action. The ecological perspective adds depth to this rather linear view by considering structural and transformational invariants present in events when stereotyping of older adults occurs. Therefore, individuals who are involved in stereotyping older adults can change or alter their stereotypes of specific older people as time or interaction continues.

Also, the ecological perspective narrows the focus of research by concentrating on only the “useful” information that individuals process during events that formulate and enact older adult stereotypes. By focusing on the information and cues that individuals perceive to be important, not all possible information in a situation is considered—thus limiting the realm of possible variables to investigate. Currently, older adult stereotype research is still in its infancy and no variables can be ruled out. But the concept of affordances is a functional analysis of the environment and individuals have the choice of what information to process. This assumes that some information has more relevance to some situations, thus promoting the view that context should be considered when examining communication phenomena.

Finally, the ecological approach assumes a fit between an individual’s receptive capabilities and the information that stimulates stereotypes of older adults. The perceptual attunement that all individuals possess are either biological in nature or learned socially. While the biological explanation of perceptual attunement is not practical for older adult research, the socially learned interpretation of how older adult stereotypes are assimilated by individuals offers a fruitful approach. For instance, studies can investigate how an individual’s social environment, such as their family or peer group, influences the formulation and enactment of older adult stereotypes.

To summarize, if the ecological perspective is implemented in older adult stereotype research, five advantages occur. First, the ecological perspective provides a theoretical basis for older adult stereotype research. Second, this perspective

expands the functions of stereotypes by examining the adaptive purpose that stereotypes serve. Also, if the ecological perspective is adopted, older adult stereotype research can consider the dynamic nature of perceptions, attitudes, and stereotypes of older adults. Further, this perspective concentrates on “useful” or functional information that individuals perceive from the environment. Finally, the fit between an individual’s perceptions and the information that is available in the environment can be viewed as socially learned.

Rationale for the Study

Recent older adult stereotype research utilizes the cognitive perspective; this perspective states that stereotypes are either positive or negative knowledge structures that are used to process information in a social situation (Hummert et al., 1995b). Because of this definition of stereotyping, the cognitive perspective allows for the presence of a dual nature in the stereotyping of older adults (e.g., Brewer et al., 1981; Hummert, 1990; Schmidt & Borland, 1986). The dual nature of older adult stereotypes is exemplified by individuals possessing both positive and negative views of older adults. Across the life span, individuals associate both positive and negative traits with older adults, and hold positive and negative stereotypes of older adults (e.g., Brewer & Lui, 1984; Burke, 1982; Downs & Waltz, 1981).

The duality of current older adult stereotype research supports employing the cognitive perspective, but one facet of the cognitive perspective’s definition of stereotyping has been overlooked. This perspective states that stereotyping occurs in

“the social situation;” therefore, when researching older adult stereotypes, the situation needs to be considered. The majority of stereotype research does not take into account the social situation or the environmental context in which older adult stereotypes are formed or recollected.

While the cognitive perspective does provide a framework for stereotype research, it does not provide a theory to guide investigation of the social situations in older adult stereotype research. Therefore, a need exists for a theory that can help to explain how the social situation affects the formation and recall of older adult stereotypes that can either be supported or falsified. In this study, the ecological perspective is offered as a means to fill this theoretical void.

The ecological perspective does not negate the cognitive perspective; rather, the ecological perspective provides a better, more specific theoretical basis for examining the effects of the social situation or environmental context on older adult stereotypes. Other advantages are gained from applying ecological theory to stereotype research. For instance, the function of stereotypes of older adults expand from facilitating interpretation of new information to serving an adaptive function to the environment. Also, older adult stereotypes are viewed as dynamic events that are ever-changing rather than the current notion of static stereotypes. Further, this theory considers what an individual perceives as “useful” information and assesses the fit between an individual’s receptive capabilities and information present in a situation.

In order to proceed, a definition of context is needed. Cody and McLaughlin

(1985) and Miller, Cody and McLaughlin (1994) argue that the situation is an important, fundamental construct in interpersonal communication research. Further, Cody and McLaughlin (1985) state, "Communication scholars (should) advance an ecologically sound understanding and prediction of naturally occurring communicative behavior" (p. 264). Therefore, communication must be observed within a context or situation; without the knowledge of naturally occurring context, communication scholars are left to make inferences regarding how communication may change in a natural context.

In the current study, context is defined as the situation where an individual performs an act or behavior within a physical setting. This definition of context can include the individual interacting with others (e.g., two people talking with each other) as well as the individual performing an act with no interaction with others (e.g., a person typing at a computer). Context, as defined for this study, necessitates another person in the environment. Cody and McLaughlin (1985) partially define context as having at least two people in the environment. But Miller, Cody, and McLaughlin (1994) state that "past definitions of situations were too static and concrete in nature" and that "a situation does not require two people" (p. 165). While the idea of situation or context including interaction between two people does make logical sense in some lines of communication research (such as interpersonal communication employing the relational perspective), context does not require interaction in order to exist. Rather, interaction can be a part of context; but context can exist without interaction. For

instance, if someone is sitting behind a desk in a business office, the most obvious context is an organization context. But what if we have the same person sitting behind the desk and talking to his or her mother on the telephone, does that change the context? No, the context would continue to be an organization setting; but some kind of qualifier may be placed on the context, such as an organization context in which the participant is engaging in parent/child communication. The context does not change with the addition of a person or interaction introduced into the environment.

One of the primary purposes of this study is to examine whether younger adults' stereotypes of older adults change as a function of context. Specifically, three different contexts will be investigated: (a) an interactive context in which an older adult is performing an act while interacting with another person; (b) a neutral context in which an older adult is not performing an act and not interacting with another person; and (c) a noninteractive context in which an older adult is performing an act with no interaction with another person. To assess whether different contexts affect older adult stereotypes, the following hypothesis is offered to guide this study:

- H1: Younger adults' perceptions of attitudes associated with older adults differ as a function of context. In other words, younger adults will rate attitudes associated with older adults differently in the interactive, neutral, and noninteractive contexts.

Very little prior research has considered the variable of older adult sex in the formation and recollection of older adult stereotypes. An exception to this statement

is Hummert's (1994) study that investigated the effects of physiognomic cues on older adult stereotypes, finding that age and sex may affect stereotyping. From her results, Hummert concluded that if her results are confirmed by other research studies, sex of the older adult "must be included as a physical stereotype cue" (p. 17).

Additionally, Rose-Colley and Eddy (1988) state that the sex of the older adult should be examined because this variable may have an effect on interaction with older adults. In order to facilitate the knowledge of whether sex is a significant variable in the formation and recollection of older adult stereotypes, the following subhypothesis is offered:

H1a: Younger adults will associate different attitudes with female older adults than with male older adults.

Attitudes and stereotypes about individuals can influence linguistic and paralinguistic choices in conversation (Nussbaum et al., 1996). Additionally, these attitudes and beliefs can contribute to the evaluation of the communication encounter (Giles & Coupland, 1991; Ryan et al., 1992). Numerous studies have examined the phenomenon of elderspeak and the use of patronizing speech toward older adults (Cohen & Faulkner, 1986; Ryan, Giles, Bartolucci, & Henwood, 1986); in particular, two studies have investigated the relationship between older adult stereotyping and beliefs about older adult language abilities (Hummert et al., 1995; Ryan et al., 1992). Both of these studies report that beliefs about older adults' language skills vary with the characteristics associated with those adults, not simply because those adults are

elderly.

To extend what is known about beliefs associated with older adult language abilities, Hummert et al. (1995b) urge other researchers to “focus on untangling the specific cues in the natural setting that lead to positive versus negative beliefs about the communication competence of older adults” (p. 257). In order to answer the call for further research concerning the natural setting or situation or context, the following hypothesis guides this inquiry:

H2: Younger adults’ beliefs about older adult language abilities will differ as a function of context. In other words, younger adults will rate older adults’ language performance differently in the interactive, neutral, and noninteractive contexts.

In addition to examining whether younger adults’ beliefs about older adult language abilities change as a function of context, the variable of older adult gender will be investigated. Ryan et al. (1992) and Hummert et al. (1995a) have examined language beliefs associated with older adults, but these prior studies have not considered the possible effects of older adult sex. To investigation of how younger adults perceive older adults’ language abilities in relation to older adult sex, the following subhypothesis is offered:

H2a: Younger adults will associate different language abilities with female older adults than with male older adults.

Chapter 2

STIMULUS MATERIAL, PARTICIPANTS, AND PROCEDURES

Stimulus Material

Six older adults, aged 65 years and older, were recruited as confederates for the creation of older adult videotapes (i.e., stimulus material) from a local Senior Citizen Recreation Center. This Senior Citizen Center is not a meal site nor a day care facility; rather, this center provides classes and an opportunity for social interaction among older adults. Each older adult who agreed to participate as a confederate received \$20.00 for his or her participation, but all six confederates chose to donate these funds to the Senior Citizen Recreation Center.

In order to prevent confounding variables, such as ethnic stereotypes, from entering into this study, all six confederates were European American. The six confederates consisted of three males and three females; their ages ranged from 63-80 years old with a mean of 66 years. Five of the six older adults were married and one male older adult was a widower. For a more complete description of the confederates, see Table 1.

Insert Table 1 about here

The goals and requirements of the research study were explained to each confederate and then each confederate signed an informed consent form (see

Appendix A for Confederate Informed Consent Form) before any videotaping occurred. Each confederate was videotaped in the same neutral backdrop, which consisted of a table, chair, and a white wall with a small bulletin board in the background. The confederates were video taped talking with the researcher who was off-screen operating the video camera.

Validation Test of Stimulus Material

After these stimulus materials (i.e., six videotapes) were collected, two confederates were identified as the two targets (i.e., older adults) that would continue on in this study and be videotaped in a variety of contexts. In order to identify these targets, a validation test of the videotapes ensued.

Twenty participants from the Department of Communication human participant pool were recruited for the validation test of the stimulus material. The participants consisted of undergraduate students enrolled in communication classes and received research participation credit for taking part in the study. Each participant signed an informed consent form (see Appendix B for Stimulus Material Rating Participant Informed Consent Form), viewed the six videotapes, and completed a seven-page questionnaire. The questionnaire consisted of three areas: demographic questions regarding the participant (see Appendix C for Participant Demographic Questions); a question regarding the age of each confederate in the six videotapes; and six copies of Knox, Gekoski, and Kelly's (1995) Age Group Evaluation and Description (AGED) Inventory (see Appendix D for AGED Inventory).

The means of the AGED Inventory score were computed for each confederate. Additionally the two subscales of the AGED Inventory, Evaluative and Descriptive subscales, were calculated. Older adult confederates were compared and evaluated across several criteria, such as: perceived age; mean of AGED Inventory; and means of Evaluative and Receptive subscales of the AGED Inventory (see Table 2 for complete listing of confederates' scores). From these analyses, two targets, one male older adult and one female older adult, were identified for the second phase of this study. Identification of these two targets was based on similar perceived age and scores on the AGED Inventory and subscales.

Insert Table 2 about here

The first older adult confederate who was identified as a target was Leo, a 73 year old, retired professor who was currently married and enrolled in an art class at the Senior Citizen Recreation Center. The second individual identified as a target was Millie, a 75 year old, housewife who was currently married and enrolled in the same art class as Leo. Leo's and Millie's means on the AGED Inventory were 16.85 and 17.365, respectively. Also, Leo and Millie were rated similarly in regards to perceived age; specifically, Leo's mean perceived age was 67.75 years and Millie's mean of perceived age was 67.80. Both targets agreed to be videotaped in three different contexts for the second phase of the study.

Each target was videotaped in three different contexts. The background of each context remained constant for all older adult targets and videotapes. In other words, the older adult target was always seated at the same desk, in the same chair, in front of a white wall with a small bulletin board in the background; only the act that the older adult was performing, which determines the context, changed.

The three different contexts consisted of: interaction, neutral, and noninteraction contexts. The interactive context had target interacting with another person; specifically, the older adult was conversing with a younger adult in her middle 30's. The second context was a neutral context, which was a still shot of the target's upper body region; in other words, the older adult's face and shoulders were videotaped. The final context, the noninteractive context, contained the target performing an individual activity by him- or herself; specifically, the older adult was reading a book. Thus, six different videotapes, three containing a male older adult target and three containing a female older adult target, were created: two interaction context videotapes, two neutral context videotapes, and two noninteraction videotapes.

Participants

One hundred and eighty participants were recruited for the second phase of this study. All participants were recruited from the Department of Communication's human participant pool. Participants received research credit for completing this project. Participants signed up for the research study in groups of 30 subjects to form

six subsample groups. Each subsample viewed one videotape of a target and completed a two-part questionnaire. The first part of the questionnaire contains demographic questions regarding the participant (see Appendix C for Participant Demographic Questions) and the second part contains the two dependent measures—Knox et al.'s (1995) AGED Inventory and Ryan et al.'s (1992) Language in Adulthood (LIA) Scale.

Participants consisted of 96 (53.3%) males and 84 (46.7%) females. The participants' age ranged from 18-32 years and the mean age was 20.26 years ($SD = 1.99$). All participants had some level of college education. Almost 73 percent ($n = 131$) of the participants reported their ethnicity as European American, 9.4% ($n = 17$) reported themselves as African American, 8.3% ($n = 15$) were Asian or Asian American, 7.2% ($n = 13$) were Native American, and the rest of the participants were either Hispanic, Puerto Rican, or Filipino ($n = 4$). The majority of the participants were single ($n = 170$), while six participants were married and three participants were divorced. Further, the majority of the participants ($n = 146$) had not lived with a person over the age of 65 years, while almost 20% ($n = 34$) of the sample had lived with a person over the age of 65 years.

Measures

Age Group Evaluation and Description (AGED) Inventory

The Age Group Evaluation and Description (AGED) Inventory (Knox et al., 1995) allows assessment of both age stereotypes and attitudes associated with age-

specified targets (see Appendix D for AGED Inventory). The AGED Inventory consists of a list of 28 bipolar adjective pairs in seven point Likert scale format. The AGED Inventory contains two dimensions, Evaluative and Descriptive subscales. The AGED Inventory has produced a test-retest reliability for each subscale of the AGED Inventory; these reliabilities are: Evaluative ($r = .645$) and Descriptive ($r = .74$). The overall reliability of the AGED Inventory is .6925.

To argue the validity of the AGED Inventory, Knox et al. (1995) administered the instrument to three different subsamples: the initial between subjects design sample; the confirmatory between subjects design sample; and the within subjects design sample. Coefficients of congruence are reported for both the initial versus confirmatory samples and the between versus within designs. The coefficients of congruence between factor structures attained from the initial versus confirmatory samples are extremely high; specifically, the coefficients of congruence were: Evaluative subscale, .99; and Descriptive subscale, .955 (Knox et al., 1995). Further, the coefficients of congruence between factor structures for the between versus within subjects designs were also high: Evaluative subscale, .91; and Descriptive subscale, .885. Knox et al. (1995) conclude that subscales of Evaluative attitudes and Descriptive attitudes have been replicable across samples and experimental designs.

Language In Adulthood (LIA) Scale

The second dependent measure, Language in Adulthood (LIA) Scale (Ryan et al., 1992), assesses beliefs about communication competence of adults (see Appendix

F for LIA Scale). This scale consists of 19 items and two subscales. receptive and expressive subscales. Specifically, ten items measure receptive language skills and nine items assess expressive language skills.

Originally, Ryan et al. (1992) stated the LIA items in first person singular statements. but the items have been modified to third person plural statements. This methodology of changing from first person singular to third person plural has been used successfully in numerous studies (see Hummert, 1990; Hummert et al., 1995b; Schmidt & Borland, 1986). The LIA items are rated on a seven-point, Likert scale from strongly agree (1) to strongly disagree (7).

The reliability for LIA scale is high with a Cronbach's alpha ranging from .84 to .89 (Hummert et al., 1995b; Ryan et al., 1992). Regarding the subscales in the LIA, the receptive subscale has an acceptable reliability with Cronbach's alpha ranging from .80 to .81 (Hummert et al., 1995b; Ryan et al., 1992). However, the expressive subscale of the LIA exhibits moderate reliability, with Cronbach's alpha varying from .60 to .61; Hummert et al. (1995b) and Ryan et al. (1992) report similar problems regarding the expressive subscale of the LIA.

Method

The participants reported in six subsample groups consisting of 30 individuals. Each subsample group was instructed by the researcher that they would be viewing one videotape of an older adult and would be asked to complete a three-part questionnaire about the videotape. After explaining the requirements of the

research project. participants were asked to sign an informed consent form (see Appendix E for Younger Adult Participant Informed Consent Form).

Participant Informed Consent Forms were collected by the researcher and participants were given a questionnaire and asked to fill out the first page that contained the demographic questions about themselves. After the first page of the questionnaire was completed, instructions were given regarding the completion of the questionnaire. Participants were informed that they would watch a one minute videotape. After watching the videotape, participants were instructed that they could start answering the questionnaire. Further, the research told participants that the videotape would be rewound and continuously played until every participant completed the questionnaire and participants should feel free to study the videotape as much as they wanted or needed in order to answer the questionnaire. This procedure allowed participants to access the image of the older adult while answering the questionnaire.

Data Analysis

For the first hypothesis, a 3 (interaction, neutral, or noninteraction context) X 2 (male or female) analysis of variance (ANOVA) was employed to determine whether younger adults' perceptions of attitudes associated with older adults differ as a function of context. Means and standard deviations were calculated for each cell and level of each main effect. Then the F-statistic was calculated to determine if there is a significant effect on the attitudes associated with older adult targets for each context.

The subhypothesis addressed whether older adult gender affects younger adults' perceptions of attitudes associated with older adults. The F-statistic for gender was used to determine support for this subhypothesis. The independent variable is the gender of the older adult target and the dependent variable is the AGED Inventory mean score associated with the older adult targets. Also, the F-statistic for the interaction of context and gender was calculated to determine if there is a significant effect on the trait ratings for gender and context.

Additionally, multiple comparison procedures were employed to determine where the difference lies in the context conditions in genders. Multiple comparison procedures are statistics that are used to make a comparison (i.e., test for significance) between two or more means (Toothaker, 1991, 1993; Toothaker & Miller, 1996). The comparisons between cell means occurred for each older adult target across context types; in other words, cell means were compared for the male older adult target between contexts and for the female older adult target between contexts, but no comparisons were made across genders.

Because this study did not do all pairwise comparisons on cell means, the study used Toothaker's (1991, 1993) advice that the Cicchetti's (1972) approach is the best multiple comparison procedure to use for doing less than all pairwise comparisons. Cicchetti's (1972) approach to multiple comparisons allows for an approximate solution of the number-of-means parameter problem without producing a liberal test (Toothaker, 1991, 1993).

The second hypothesis, whether younger adults perceive a difference in older adult language performance across contexts, was assessed by a 3 (interactive, neutral, or noninteractive context) X 2 (male or female) ANOVA. Means and standard deviations were calculated for each cell and level of each main effect. The F-statistic was calculated to determine if there is a significant difference between younger adults' beliefs about older adults' language abilities for each context. The subhypothesis addressed whether younger adults perceived a difference between language abilities associated with female and male older adults. The F-statistic for gender was used to determine support for this subhypothesis. Further, the F-statistic for the interaction of context and gender was calculated to determine if there is a significant effect on the language abilities ratings for gender and context. Cichetti's (1972) approach to multiple comparison procedures was employed to determine if there are significant differences in male older adult target's and female older adult target's LIA Scale means across context types.

Chapter 3

RESULTS

Before hypothesis testing occurred, the reliability of the AGED Inventory and the LIA Scale was examined. The reliability of the AGED Inventory, using Cronbach's coefficient alpha, was .90. The descriptive and evaluative subscales of the AGED Inventory were .90 and .90 respectively. Cronbach's coefficient alpha revealed a reliability of .86 for the LIA Scale; the reliability of the receptive subscale is .86 and reliability of the expressive subscale is .87.

Hypothesis One

The first hypothesis states that younger adults' perceptions of attitudes associated with older adults would differ across interaction, neutral, and noninteraction contexts. To address this question, participants' responses to the older adult videotapes were analyzed utilizing a 3 (interactive, neutral, or noninteractive context) X 2 (male or female) ANOVA. Results of this ANOVA reveal significant main effects and interaction. Specifically, the main effects of gender, $F(1, 174) = 8.67, p = .0037$, and context, $F(2, 174) = 25.59, p = .0001$ were significant. Also, the interaction effect between gender and context was significant, $F(2, 174) = 3.98, p = .0222$ (see Table 3 for complete results). The effect size of this statistical test was .32 for context, .18 for gender, and .14 for the context and gender interaction (Kirk, 1995, p. 399). These findings indicate that younger adults' perceptions of older adults' traits changed or differed as a function of context. Although an ANOVA detects differences

between groups, further analyses of these data are needed to determine where the differences lies between the different contexts.

Insert Table 3 about here

Cicchetti's (1972) approach to multiple comparison procedures was employed to determine where the difference occurred in the AGED Inventory scores of the older adult targets. As shown in Table 4, results reveal a significant difference in AGED Inventory score cell means between the interaction context and the neutral context for both male and female older adult targets. In addition, a significant difference in AGED Inventory mean scores was found between the noninteraction context and neutral context for the female older adult target. In other words, both male and female older adult targets in the interaction context were rated more positively by younger adults than the older adult targets in the neutral context. Also, the female older adult target in the noninteraction contexts were rated more positively by younger adults than the female older adult target in the neutral contexts. Thus, Hypothesis 1 is supported.

Insert Table 4 about here

Because of the support for Hypothesis 1, several post hoc analyses were

performed regarding the two subscales of the AGED Inventory. These post hoc analyses included twelve Cicchetti (1972) multiple comparison procedures that isolated the descriptive and evaluative subscales of the AGED Inventory. Specifically, cell means of the descriptive subscale scores of the AGED Inventory were compared for each older adult target across contexts and revealed several significant differences (see Table 5 for results). For the male older adult target, there was a significant difference between the interaction and neutral contexts. For the female older adult target, there were significant differences in descriptive subscale means between the interaction and noninteraction contexts, and between the interaction and neutral contexts. Again, both male and female older adult targets who were engaged in communication were rated more positively than older adults targets shown in a still headshot.

Insert Tables 5 about here

The second post hoc analysis examined if there was a difference regarding the evaluative subscale mean scores of the AGED Inventory for older adult targets across context types. Cicchetti's (1972) multiple comparison procedures indicated significant differences (see Table 6 for results). For the older adult male, there was a significant difference on the evaluative subscale cell means between the interaction and neutral contexts, and between noninteraction and neutral contexts. In addition,

there were significant differences between interaction and neutral contexts, and noninteraction and neutral contexts for the female older adult target.

Insert Table 6 about here

The subhypothesis of Hypothesis One predicted that younger adults would associate different attitudes with the female older adult target than the male older adult target. The F-statistic for gender from the earlier two-way ANOVA using older adult gender to predict attitudes associated with the target revealed significance, $F(1, 174) = 8.67$, $p = .0037$. Therefore, the subhypothesis is supported as the female older adult target received different attitudes from younger adults than the male older adult target.

Hypothesis Two

The second hypothesis states that younger adults' beliefs about the older adult targets' language abilities differ as a function of context. A 3 (interaction, neutral, or noninteraction context) X 2 (male or female) ANOVA produced a significant main effect and interaction. The main effect of context, $F(2, 174) = 11.72$, $p = .0001$, and the interaction effect between gender and context were significant, $F(2, 174) = 6.81$, $p = .0014$ (see Table 7 for complete results). The effect sizes for this statistical test was .33 for context, .00 for gender, and .23 for the interaction of gender and context (Kirk, 1995, p. 399). Thus, younger adults perceptions of older adults' language

abilities changed as a function of context and Hypothesis 2 is supported. But because of the nonsignificant main effect of gender, the subhypothesis of Hypothesis 2 was not supported.

Insert Table 7 about here

To determine where the differences between LIA Scale scores occurred within these data, Cicchetti's (1972) multiple comparison procedures for cell means were employed. These multiple comparison procedures revealed a significant difference between all three context types for the female older adult target (see Table 8 for complete results). The female older adult target in the interactive context was perceived to have better language abilities than the female older adult target in the noninteractive context; also, the female older adult target in the noninteraction context was perceived to have better language abilities than the female older adult target in the neural context. However, there were no differences in the LIA Scale mean scores between context types for the male older adult target.

Insert Table 8 about here

Again, post hoc multiple comparison procedures were employed to determine if there were differences between older adults' language abilities on the LIA subscales

as a function of context. In regards to the receptive subscale mean scores of the LIA Scale for the female older adult target, significant differences were revealed between the interaction and noninteraction contexts and the interaction and neutral contexts for the older adult female (see Table 9 for complete results). No differences were found for the male older adult target across the context types.

Insert Table 9 about here

Cicchetti's (1972) approach to multiple comparison procedures explored differences on the expressive subscale of the LIA Scale across context types. As shown in Table 10, results indicate no differences in expressive subscale means for the male older adult target, but two significant differences were detected for the female older adult target. Specifically, the female older adult target in the interaction and noninteraction contexts were rated higher on expressive language abilities than the female older adult target in the neutral context.

Insert Table 10 about here

Chapter IV

DISCUSSION

Overview

The purpose of this study was two-fold. First, the study examined how context affects younger adults' perceptions of older adults. Specifically, this study investigated: (a) whether younger adults' perceptions of attitudes associated with older adults changed as a function of context; and (b) whether younger adults' perceptions about older adults' language abilities changed as a function of context. Further, this study offers the ecological perspective as an additional theoretical basis for older adult stereotype research. Prior older adult stereotype research has utilized the cognitive perspective, which states that stereotypes are schemas and these schemas are organized knowledge structures which facilitate interpretation (e.g., Ashmore & Del Boca, 1981; Hamilton & Troler, 1986; Hummert, 1994a; Hummert et al., 1995b). The ecological perspective considers and emphasizes the reciprocity between living systems and their environment (see Gibson, 1966; 1979; McArthur & Baron, 1983); thus, the effects of environmental context and cues can be examined as stereotypes are created and recalled by individuals.

The following discussion addresses four areas regarding this dissertation study. First, the research results of each hypothesis and the additional analyses are addressed. Second, the theoretical implications of the research results are discussed. Next, the limitations of the study are considered. Finally, directions for future

research regarding older adult stereotypes are discussed.

Attitudes Associated with Older Adults

Hypothesis one investigates whether younger adults' perceptions of attitudes associated with older adults change as a function of context. Results indicate several significant differences between all three contexts in the AGED Inventory scores of the older adult targets. Namely, there were three significant differences for female older adults: (a) attitudes toward older adults involved in conversation were different than attitudes associated with older adults performing an individual activity; (b) attitudes toward older adults who are conversing were different than attitudes associated with older adults in neutral contexts; and (c) attitudes toward older adults engaged in an individual activity were different than attitudes associated with older adults in neutral contexts. Also, male older adults in interaction context were rated more positively than male older adults in the neutral contexts. These results indicate that older adults who are communicating are perceived more positively than older adults engaged in individual activities or shown in a neutral context. These findings demonstrate that as the context changes, younger adults' attitudes associated with older adults change.

In addition, differences between the contexts regarding the evaluative and descriptive subscales of the AGED Inventory were found. Specifically, younger adults' perceptions of descriptive attitudes associated with older adults changed as context changed. Older adults who are communicating have more positive descriptive attitudes associated with them than older adults in the neutral contexts. Specifically,

younger adults' perceptions of evaluative attitudes associated with older adults revealed that older adults engaged in conversation or an individual activity were rated more positively on evaluative attitudes than when based on still shots of older adults in a neutral context. These findings indicate that older adults who are communicating and interacting with another person are seen more favorably than other older adults who are not communicating or interacting. Hypothesis One is supported and these results have several important implications.

The first implication centers on what has been used as stimulus material in prior older adult stereotype research. Past research examining older adult stereotypes has utilized either written trait descriptions or photographs of older adults as stimulus material. For example, Schmidt and Borland (1986) and Hummert (1990a) used traits associated with older adults to trigger individuals' stereotypes of older adults. Studies of this type illustrate that written traits or characteristics can be grouped into categories that represent common older adult stereotypes. Another line of older adult stereotype research has used photographs of older adults as stimulus material to elicit responses from participants. These photographs were chosen by researchers to represent typical views or prototypes of older adults (Brewer et al. 1981; Brewer & Lui; 1984; Hummert, 1990a, b).

These studies not only provided a foundation of older adult stereotype research, but also advanced this line of research by changing the stimulus material. These studies moved from written traits to actual photographs of older adults as

stimulus material. The use of older adult photographs may indicate that researchers wanted to represent older adults in a more vivid sense. Many of these researchers have put forth a call for future research to mirror more realistic circumstances. For instance, Schmidt and Borland (1986) urged researchers to “discover the circumstances under which different stereotypes and attitudes are activated” (p. 259). Hummert (1994a) and her colleagues (1995a, b) argue that the impact of physical characteristics and situational (i.e., contextual) cues on the activation of positive versus negative older adult stereotypes should be examined.

In an attempt to address some of these concerns, this study manipulated the context in which older adults were performing an activity or behavior. This manipulation of context occurred in order to discover whether different older adult stereotypes were activated by various contexts or situations. Results from this dissertation indicate that context plays an important role in the formation and recollection of older adult stereotypes. Context changes the attitudes and traits that younger adults associate with older adults.

A second implication of these findings indicates that communication plays a significant role in younger adults’ perceptions of attitudes associated with older adults. In the interaction context, older adults were shown in contact and communicating with a younger adult. Past research has examined the effects of contact on younger adults’ perceptions of older adults. Specifically, younger adults who maintained frequent, regular contact with older adults consistently rate older

adults more positively than those younger adults that do not have regular contact with older adults (Aday, Sims, & Evans, 1991; Downs & Walz, 1981; Rose-Colley & Eddy, 1988). These prior research findings (when paired with this study's results of younger adults associating more positive attitudes toward older adults in the interaction context than in other contexts) suggest that contact or communication between younger and older adults is an important factor when considering the effects of context on younger adults' perceptions of older adults.

Younger adults' perceptions of older adult stereotypes are more than superficial curiosities; rather stereotypes dramatically shape the way one perceives and interacts with members of different groups (Allport, 1954; Power, Murphy, & Coover, 1996). Further, "stereotypes precede and shape our perceptions and are an inescapable consequence of living in a complex world" (Featherstone & Hepworth, 1990). Thus, stereotypes of older adults and other stereotyped groups affect the manner in which one interacts and communicates with these individuals on a daily basis.

Evidence exists that all stereotypes, not only older adult stereotypes, impact communication encounters with members of the stereotyped groups. For example, Hart and Williams (1995) investigated how able-bodied instructors communicate with students who have physical disabilities. They concluded that instructors interact differently with students with disabilities than with able-bodied students. Specifically, instructors spent less time interacting with students who have disabilities; further,

much of the instructors' communication with these students was negative or detrimental. Stereotypes of individuals who we perceive as being different affects and impacts interaction and communication with those individuals.

Older Adult Gender Differences

The subhypothesis of Hypothesis One states that younger adults' perceptions of female older adults is associated with more positive attitudes than male older adults as measured by the AGED Inventory. Results from this study indicate that sex is a significant variable in younger adults' perceptions of attitudes associated with older adults; the female older adult has more positive attitudes associated with her than the male older adult.

Additional post hoc analyses examined whether younger adults' perceptions of evaluative and descriptive attitudes associated with older adults changed as a function of older adult gender. Results demonstrate that younger adults' perceptions of evaluative attitudes associated with the female older adult were more positive than the evaluative attitudes associated with the male older adult, but there was no difference between younger adults' ratings of the female versus the male older adult in regards to descriptive attitudes. Therefore, sex of older adults is a significant variable in how younger adults regard evaluative attitudes connected with older adults.

While older adult target sex has not been a major focus in older adult stereotype research, two prior studies have investigated this variable and produced

equivocal results. Kite, Deaux, and Miele (1991) indicate that age of a target has more salience on an individual's perception of an older adult than a target's sex. However, Hummert's (1994a) study reports that an older adult target's age and sex may interact and affect a person's perceptions of an older adult target.

Hummert (1994a) states that future older adult stereotype research should include older adult sex as a variable. Further, if her results are replicated, older adult target sex must be included as a physical stereotype cue that individuals perceive as important when formulating and recollecting older adult stereotypes. The results reported in this study indicate that sex of an older adult is a significant variable that affects younger adults' perceptions of older adults. Thus, the sex of an older adult appears to be a crucial element in the stereotyping of older adults.

These older adult sex differences can be attributed to two possible factors. First individuals, regardless of their age, see and encounter more older adult women than older adult men simple because women have greater longevity than men (Coleman & Bond, 1990). In Great Britain, for example, the gender ratio for people over the age of 65 years is 121 women for every 100 men; further, this trend has not changed with the increasing population of older adults (Coleman & Bond, 1990). Thus, the impact of older adult sex could be attributed to the greater frequency of observing and interacting with older adult women than older adult men.

A second possible factor which could help explain the differences associated with older adult sex is the grandparent/grandchild relationship. This relationship may

be the best representation and chance for a younger adult to interaction and experience intergenerational communication. Prior researchers has found that grandchildren report feeling emotionally closest to their maternal grandmother (Eisenburg, 1988; Hodgson, 1992; Kennedy, 1990;1992). These findings regarding how younger adults perceive their relationships with grandparents (i.e., older adults) may given some indication as to why younger adults, in general, perceive older adult women more favorably than older adult men.

Older Adults' Language Abilities

The final hypothesis investigates whether younger adults' perceptions of older adults' language abilities, as measured by Ryan et al.'s (1992) LIA Scale, changes as a function of context. Results demonstrate that female older adults engaged in a conversation were perceived as having better language abilities than female older adults engaged in an individual activity or older adults shown in a neutral context. Female older adults conversing with another person were reported by younger adults to have better receptive and expressive language skills than female older adults involved in a neutral setting. Further, female older adults involved in communication were rated higher in regards to expressive language performance than female older adults involved in an individual activity. Finally, female older adults engaged in an individual activity were rated higher in receptive language abilities than female older adults shown in a still headshot. There are two implications of these results.

First, these findings support the supposition that female older adults who are

involved in a conversation are seen by younger adults as having better language abilities than older adults who are not involved in a conversation. Thus, context is an important variable in younger adults' views of older adults' language abilities and performances. Further, these results make logical, intuitive sense. In other words, it is probable that younger adults who observe older adults participating in communication activities would rate these individuals' language abilities and performances higher than older adults who are not involved in communication activities simply because they observed these older adults interacting and communicating with other people. Because older adults interaction was lacking in the individual activity and neutral contexts, the results make "common sense."

A second implication of context playing an important role in perceptions of older adults' language abilities relates to the similar finding of context and attitudes associated with older adults. Again, because of the appearance of both the communication act and the presence of another person in the interaction context, these findings cannot accurately detect which was the deciding factor. Regardless of whether it was the act of communicating or the appearance of another person in the interaction context, the research findings suggest that context does make a significant difference in formulating and recollecting older adult stereotypes.

Theoretical Implications

Older adult stereotype research has focused primarily on two areas: (a) traits and types of stereotypes associated with older adults and (b) the effects of stereotypes

on perceived language abilities of older adults. The theoretical basis of these studies center on the cognitive conceptual framework perspective of stereotypes. This perspective states that stereotypes are organized knowledge structures that facilitate the perception and interpretation of information. Also, this perspective acknowledges the duality of stereotypes; in other words, stereotypes may be both good and bad in nature. While this perspective has facilitated knowledge regarding older adult stereotypes, the cognitive perspective does not explain the effect of context on older adult stereotypes.

The ecological perspective has been offered as the theoretical basis to facilitate the understanding of the role of context in older adult stereotypes. By employing the ecological perspective as a theoretical basis for older adult stereotype research, past research and theories, such as the cognitive framework and communication accommodation theory, are not negated. Rather, the ecological perspective is offered in addition to these theories in hopes of contributing a better explanation of how context affects older adult stereotypes. Because this perspective emphasizes a dynamic exchange between how an individual perceives and interacts within and with the environment, a more complete understanding of context may occur.

Findings of this study support the supposition that context affects attitudes associated with and language beliefs about older adults. Because context seems to be a significant variable in the formation and recollection of older adult stereotypes, a

theory that can explain context is warranted for future older adult stereotype research. This discussion of the theoretical implication of this dissertation will focus on the primary tenets of the ecological perspective and the major advantages offered by this perspective.

The first implication of utilizing the ecological perspective to explain older adult stereotypes centers on the adaptive function that perception performs; in other words, an individual's perception serves an adaptive function and facilitates goal attainment (McArthur & Baron, 1983). This adaptive function changes the focus of older adults research from how processing occurs (e.g., examination of schemata for older adult stereotypes) to what information is being processed (e.g., physiognomic cues of the older adult and environmental cues). Because this study found context to be an important variable in younger adults' perceiving and processing of older adult stereotypes, the ecological perspective can offer a better understanding of how stereotypes are formed and enacted during interaction.

A second theoretical implication of this study is concerned with how a communication encounter or physical event is described. The ecological perspective's definition of physical events is that they are dynamic in nature and can be both environmental and social. In keeping with this definition of physical events, this study used videotapes, which are more dynamic and present changing stimulus material. Also, the use of these videotapes more accurately mirrored "real world" interaction and behavior.

Finally, another theoretical implication of employing the ecological perspective is that it may better be equipped to identify what information is being perceived. In other words, through additional studies, researchers can target which variables are relevant to the formulation and recollection of older adult stereotypes. Findings from this study indicate that context and older adult gender are cues that impact younger adults' perceptions of older adults.

Implications for Communication Discipline

This study provides several contributions to the communication discipline. First, no other studies to date have examined the effects of context and interaction on older adult stereotypes. This study is the first attempt at integrating the construct of context into older adults stereotype research. As reported before, Cody and McLaughlin (1985) argue that interpersonal communication research must consider the situation or context of the communication event. Without knowledge of context, communication research must make educated guesses regarding how context and other naturally occurring variables change and influence communication. Thus, this dissertation represents an exploratory study focusing on how context affects younger adults' perceptions of older adult stereotypes.

In addition, this study is the first attempt that utilizes an active stimulus material in which older adults are seen performing an act or behavior within a physical setting. Prior older adult stereotype research has either employed: (a) head shots or photographs of older adults (e.g., Hummert, 1990a; Schmidt & Borland,

1986); (b) a list of traits related to specific prototypes of older adult stereotypes (Hummert et al., 1995b) ; or (c) short vignettes describing an older adult's actions or behaviors (e.g., Ryan & Heaven, 1988). While all of these studies have advanced and influenced older adult stereotype knowledge, no research studies have used actual, visual, dynamic data as stimulus material. This study employs the use of videotapes in which older adults are performing an act or behavior within a physical setting. These videotapes allow participants to observe older adults in a more dynamic context that mirrors, or imitates, "real world" situations more than a stagnant photograph or a written vignette with no visual data.

A third implication for the communication discipline regards the roles of expectations and attitudes. In interpersonal communication, the expectations and attitudes that communicators bring to an interpersonal communication situation have an effect on the communication event (Ryan et al., 1992). Attitudes and beliefs about other people and the communication event can significantly influence communication behavior and also contribute to the participants' evaluation of the communication event (Giles & Coupland, 1991; Ryan et al., 1992). Thus, these attitudes and beliefs can contribute to and influence whether a communication encounter will be a success or failure (Giles & Coupland, 1991; Ryan et al., 1992).

Positive expectations regarding older adults language abilities can encourage and enhance the richness of a communication encounter (Ryan et al., 1992). Some positive traits that have been associated with older adults are: better storytelling

abilities, increased vocabulary, and sincerity (Hummert et al., 1995b; Ryan et al., 1992). These positive beliefs regarding older adult language abilities can have the reverse effect that elderspeak does. The influence of both positive and negative language expectations cannot be ignored in attempts to provide a complete understanding of language performance in later life (Ryan et al., 1992)

Ryan et al. (1992) point out that negative expectations about older adult language performance can pose barriers to successful communication. For example, the use of elderspeak may occur when communicating with older adults. Kemper (1994) defines elderspeak as “the use of patronizing speech style resembling speech address to children” (p. 18). Several studies have demonstrated that the use of elderspeak is thought to not only convey negative evaluations of the older adult, but also to be patronizing and inappropriate (Ryan, Bourhis, & Knops, 1991; Ryan & Cole, 1990).

Although some studies examine negative expectations about older adult language abilities, Coupland, Coupland, and Nussbaum (1993) state that there have been few attempts to generate sociolinguistic accounts of older adult discourse compared to the numerous studies that examine racist and sexist language (for exceptions, see Coupland, Nussbaum, Coupland, 1991; Giles et al., 1992; Kemper, 1994; Ryan et al., 1991; Ryan & Cole, 1990). The negative expectations that younger adults have of older adults’ language abilities may represent general negative attitudes towards older adults. Coupland et al. (1993) explain that these general negative

attitudes, as well as specific expectations about older adult language abilities, are forms of ageism.

Ageism, as Butler (1969, 1975) defines the term, is discrimination against a particular age group; in this instance, the age group consists of adults aged 65 years and older. Ageism can be displayed in discriminatory practices against older adults. Nussbaum, Thompson, and Robinson (1989) assert that ageist terms are derogatory and demeaning because they represent older adults as possessing undesirable traits and characteristics. Hummert (1990a) and her colleagues (1994a, b; 1995 a, b) report more negative stereotypes than positive stereotypes of older adults; also, there are more negative traits than positive traits associated with older adults. These negative attitudes and traits associated with older adults can be seen as a form of ageism.

Besides language as a possible form of ageism, Coupland and Coupland (1989) contend that conceptions of older adults and the aging process in general are socially constructed through discourse. Through discourse, members of a society share their ideas about older adults and reinforce existing beliefs about older adults. Therefore, ageism can be represented by the language that an individual uses to talk with or about older adults, reflecting not only his or her attitudes about older adults, but also constructing and reconstructing social images of older adults.

Nussbaum et al. (1989) assert that “negative attitudes must not be viewed as inconvenient or inconsiderate, but rather something that significantly affects the quality of life for the elderly” (p. 19). Both in communication and practical

applications. forms of ageism affect older adult relationships. Hummert et al. (1989) assert that relationships with other individuals are formed and continued through communication. Thus, when communication is ageist, relationships with and conceptions of older adults are affected. For example, studies have shown younger adults are unwilling to interact with older adults (Levin & Levin, 1981) and that they perceive older adults as having failing cognitive abilities (Hummert, 1990a).

Limitations

This dissertation study possesses several limitations that need to be addressed. First, the sampling method employed was convenience sampling, not random sampling. The sample of younger adult participants recruited for this study does not accurately represent the younger adult population. For instance, the sample used in this study had some level of college education; obviously, the entire population of younger adults does not have this characteristic. Because of the use of a convenience sample, the results of this study may not be generalizable to the general population of younger adults' perceptions of older adult stereotypes.

A second limitation of this study is the lack of a validation test of the aging variable. This study included a validation test of the videotapes and targeted two older adult confederates who were perceived by younger adults to be not only of the same age, but also possessing similar traits. But an additional validation test of the aging variable, to assure that participants are focusing on age, should be included in future research.

Another limitation of this study is the example used for the noninteraction context. The noninteraction context was defined as containing an older adult who was performing an individual activity, specifically, the older adult was reading a book. Although this example of a noninteraction context fits the parameters of the definition, there are some stereotypes that are bound to the activity of reading a book. For example, when one observes a person reading a book, an obvious thought tied to this action is that the person has enough education or intelligence to read. Therefore, the older adult who is reading a book may already have the traits of intelligence or wisdom associated with him or her because reading involves intelligence; in this case, the type of individual activity, not the fact that it is an individual activity, could be the reason for these findings. This limitation may explain some of the post hoc analyses in which the noninteraction context received higher scores than the neutral context.

A fourth limitation of this study is the definition of the interaction context. For the purposes of this study, the interaction context was defined as having the older adult participating in a conversation with a younger adult. This definition of interaction encapsulated two different variables: first, there is the element of communication, but there is also the element of another person being present in the context. Because of both variables, presence of another person and communication occurring between the older and younger adult, it cannot be discerned which variable was critical. In other words, even though the interaction context was significantly different than the neutral and noninteraction contexts, one cannot point to

communication as the crucial variable that altered younger adults' perceptions of older adults.

Another limitation of this study concerns the lack of participants from all stages of the life span. This study's results should be regarded as younger adults' (aged 18-32 years) perceptions of older adults. Past research has shown that younger adults have less complex views of older adults (Brewer & Lui, 1984; Heckhausen, Dixon, & Baltes, 1989; Hummert, 1994a). Thus, to gain a more accurate view of whether context affects how older adults are perceived by others across the life span, additional research needs to focus on middle aged and older adults' perceptions.

Finally, the last limitation of this study is its lack of other ethnic groups. Because of the exploratory nature of this study, and to help prevent confounding variables, older adult targets were limited to European Americans. While this procedure occurred for pragmatic reasons, it is also a limitation of this study.

Directions for Future Research

This study supports the supposition that younger adults' stereotypes of older adults change as the context in which the older adult is located changes; in particular, older adults who are interacting and communicating with a younger adult have more positive attitudes and better language abilities associated with them. Thus, the importance of context must be addressed in future older adult stereotype research.

Future research should make a concerted effort to provide participants with the most realistic situations in which older adults interact. Instead of giving

participants a photograph of an older adult's face and shoulder region. participants should have the opportunity to observe older adults in "real world" contexts or at least in some type of context rather than a still photograph in which no context or interaction can be seen.

Additionally, the use of stimulus materials, such as videotape, should be encouraged for future research. The use of videotapes that contain older adults allows participants to observe older adults performing actions or interacting with others. The use of photographs (e.g., Hummert, 1990a,b, 1994) or written vignettes (e.g., Ryan et al., 1992) as stimulus material does not and cannot contain the richness of actual action or interaction. Future older adult stereotype research must incorporate more complex stimulus material that mirrors real world interaction in a more accurate, dynamic fashion.

Another future direction for this line of research concerns the breadth of older adults used as targets in research studies. Because of the preliminary and exploratory nature of this study, the older adult targets were limited to active, healthy, European American older adults. While this qualification was necessary to control for other confounding variables, these older adult targets do not represent the general older adult population. Future research should strive to incorporate older adults that represent other ethnic groups, such as Native, African, and Hispanic Americans. Further, future research should consider investigating whether in-group and out-group older adult stereotypes differ.

A final future direction of older adult stereotype research should combine a multi-method approach to this social phenomenon. This study's findings indicate that context and interaction play important roles in the formation and recollection of younger adults' stereotypes of older adults. While this exploratory study identifies the importance of context and interaction in younger adults' stereotypes of older adults, it does not explain how context affects older adult stereotypes. In other words, this study's results demonstrate that context changes or alters younger adults' perceptions of older adults, but does not inform as to how individuals perceive and analyze context and environment. An approach that incorporates a more qualitative approach, such as open-ended questions, one-on-one interviews, and focus groups, may better explain how individuals process context and interaction.

Future research that utilizes a multi-method approach for examining older adult stereotypes may accomplish several goals. First, researchers can access individuals' older adult stereotypes more directly if some type of qualitative approach is used; instead of individuals responding to a set of bipolar adjectives, they can describe older adults in their own words. Second, researchers can ask how the context, environment, and activity negotiate attitudes and stereotypes associated with older adults. Specifically, participants may explain what environment cues or perceptual attunements were critical in the formation or recollection of particular older adult stereotypes. Finally, researchers can perhaps gain a more complete and richer understanding of older adult stereotypes from qualitative research that

complements and does not negate the prior findings of more quantitative (i.e., positivistic) research studies.

As the older adult population in America increases, researchers should focus more attention on this area of the life span. As the older adult population in America increases, more people will have interaction with older adults. Older adult stereotypes are and will continue to be present in society; greater understanding of these social phenomena is needed. This dissertation explores the effects of context and older adult gender on older adult stereotypes. While both context and gender were found to be significant factors in younger adults' perception of older adult stereotypes, future research should continue to advance the knowledge regarding these factors. Further, future studies investigating older adult stereotypes should try to answer some of the questions raised in this dissertation.

References

Aday, R. H., Sims, C. R., & Evans, E. (1991). Youth's attitudes toward the elderly: The impact of intergenerational partners. The Journal of Applied Gerontology, 10, 372-384.

Allport, G. W. (1954). The nature of prejudice. Cambridge, MA: Addison Wesley.

American Association of Retired Persons (1994). A profile of older Americans [Brochure]. Washington, DC: US Department of Health and Human Services.

Ashmore, R. D., & Del Boca, F. K. (1981). Conceptual approaches to stereotypes and stereotyping. In D. L. Hamilton (Ed.), Cognitive processes in stereotyping and intergroup behavior (pp. 1-35). Hillsdale, NJ: Lawrence Erlbaum Associates.

Berry, D. S., & McArthur, L. Z. (1986). Perceiving character in faces: The implied age-related craniofacial changes on social perception. Psychological Bulletin, 43, 3-18.

Berry, D. S., & McArthur, L. Z. (1985). Some components and consequences of a babyface. Journal of Personality and Social Psychology, 48, 312-323.

Brewer, M. B., Dull, V., & Lui, L. (1981). Perceptions of the elderly: Stereotypes as prototypes. Journal of Personality and Social Psychology, 41, 656-670.

- Brewer, M. B., & Lui, L. (1984). Categorization of the elderly by the elderly. Personality and Social Psychology Bulletin, 10, 585-595.
- Burke, J. L. (1982). Young children's attitudes and perceptions of older adults. International Journal of Aging and Human Development, 14, 205-222.
- Butler, R. N. (1969). Age-ism: Another form of bigotry. The Gerontologist, 9, 243-246.
- Butler, R. N. (1975). Why survive? Being old in America. New York: Harper & Row.
- Carroll, J. S., & Payne, J. W. (1976). Cognition and social behavior. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Cicchetti, D. V. (1972). Extension of multiple-range tests to interaction tables in the analysis of variance. Psychological Bulletin, 77, 405-408.
- Cody, M. J., & McLaughlin, M. L. (1985). The situation as a construct in interpersonal communication research. In G. R. Miller & M. L. Knapp (Eds.) Handbook of Interpersonal Communication (pp. 263-312). Beverly Hills, CA: Sage.
- Cohen, G., & Faulkner, D. (1986). Does "elderspeak" work? The effect of intonation and stress on comprehension and recall of spoken discourse in old age. Language and Communication, 6, 91-98.
- Coleman, P., & Bond, J. (1900). Aging in the twentieth century. In J. Bond & P. Coleman (Eds.), Aging in Society (pp. 1-16). London: Sage.

Coupland, N., & Coupland, J. (1989). Language and later life: The diachrony and decrement predicament. In H. Giles & P. Robinson (Eds.), The Handbook of Language and Social Psychology (pp. 451-468). London: Wiley.

Coupland, N., Coupland, J., & Nussbaum, J. F. (1993). Epilogue: Future prospects in lifespan sociolinguistics. In N. Coupland & J. F. Nussbaum (Eds.), Discourse and Lifespan Identity (pp. 284-293). Newbury Park, CA: Sage.

Coupland, J., Nussbaum, J. F., & Coupland, N. (1991). The reproduction of aging and ageism in intergenerational talk. In N. Coupland, H. Giles, & J. Wiemann (Eds.), Miscommunication and problematic talk (pp. 85-102). Beverly Hills, CA: Sage.

Crockett, W. H., & Hummert, M. L. (1987). Perceptions of aging and the elderly. In K. W. Schaie (Ed.), The annual review of gerontology and geriatrics, Vol. 7 (pp. 217-241). New York: Springer Publishing Co.

Delia, J. G., O'Keefe, B. J., & O'Keefe, D. J. (1982). The constructivist approach to communication. In F. E. X. Dance (Ed.), Human Communication Theory, (pp. 147-191). New York: Harper and Row.

Downs, A. C., & Waltz, P. J. (1981). Escape from the rocking chair: Young adults' changing perceptions of elderly persons as a function of intergenerational contact. Psychological Reports, 49, 187-189.

Eisenburg, A. R. (1988). Grandchildren's perspectives on relationships with grandparents: The influence of gender across generations. Sex Roles, 19, 205-217.

Featherstone, M., & Hepworth, M. (1990). Images of aging. In J. Bond & P. Coleman (Eds.) Aging in society (pp. 250-275). London: Sage.

Fiske, S. T., & Taylor, S. E. (1991). Social cognition. New York: McGraw-Hill Publishing Co.

Gibson, J. J. (1966). The senses considered as perceptual systems. Boston: Houghton Mifflin.

Gibson, J. J. (1979). The ecological approach to visual perception. Boston: Houghton Mifflin.

Giles, H., & Coupland, N. (1991). Language: Contexts and consequences. Pacific Grove, CA: Brooks/Cole.

Giles, H., Coupland, N., Coupland, J., Williams, A., & Nussbaum, J. (1992). Intergenerational talk and communication with older people. International Journal of Aging and Human Development, 34, 271-297.

Giles, H., Coupland, N., & Wiemann, J. M. (1992). "Talk is cheap...but "my word is my bond:" Beliefs about talk. In K. Bolton & H. Kwok (Eds.) Sociolinguistics today: Eastern and Western perspectives (pp. 218-243). London: Routledge.

Giles, H., Mulac, A., Bradac, J. J., & Johnson, P. (1987). Speech accommodation theory: The last decade and beyond. In M. L. McLaughlin (Ed.), Communication Yearbook 10 (pp. 13-48). Beverly Hills, CA: Sage.

Hamilton, D. L., & Troler, T. K. (1986). Stereotypes and stereotyping: An overview of a cognitive approach. In J. F. Davidio & S. L. Gaertner (Eds.), Attitude structure and function (pp.127-163). Orlando, FL: Academic Press.

Hart, R. D., & Williams, D. E. (1995). Able-bodied instructors and students with physical disabilities: A relationship handicapped by communication. Communication Education, 44, 140-154.

Heckhausen, J., Dixon, R. A., & Baltes, P. B. (1989). Losses in development throughout adulthood as perceived by different adult age groups. Developmental Psychology, 25, 109-121.

Hodgson, L. G. (1992). Adult grandchildren and their grandparents: The enduring bond. International Journal of Aging and Human Development, 34, 209-225.

Hummert, M. L. (1990). Multiple stereotypes of elderly and young adults: A comparison of structure and evaluations. Psychology and Aging, 5, 182-193.

Hummert, M. L. (1994a). Physiognomic cues to age and the activation of stereotypes of the elderly in interaction. International Journal of Aging and Human Development, 39, 2-19.

Hummert, M. L. (1994b). Stereotypes of the elderly and patronizing speech. In M. L. Hummert, J. Wiemann, & J. F. Nussbaum (Eds.), Interpersonal communication and older adulthood: Interdisciplinary research (pp. 162-184). Thousand Oaks, CA: Sage.

Hummert, M. L., Garstka, T. A., Shaner, J. L. (1995a). Beliefs about language performance: Adults' perceptions about self and elderly targets. Journal of Language and Social Psychology, 14, 235-259.

Hummert, M. L., Garstka, T. A., Shaner, J. L., & Strahm, S. (1995b). Stereotypes of the elderly held by young, middle-aged, and elderly adults. Journal of Gerontology.

Hummert, M. L., Henry, C., Mazloff, D., & Whitten, P. (1995c). Vocal characteristics of older adults and stereotyping. Paper presented at the 81st Annual Meeting of the Speech Communication Association, San Antonio, TX.

Hummert, M. L., Shaner, J. L., & Garstka, T. A. (1995d). Cognitive processes affecting communication with older adults: The case for stereotypes, attitudes, and beliefs about communication. In J. F. Nussbaum & J. Coupland (Eds.), Handbook of communication and aging research (pp. 105-133). Mahwah, NJ: Lawrence Erlbaum Associates.

Kearl, M. C. (1982). An inquiry into the positive personal and social effects of old age stereotypes among the elderly. International Journal of Aging and Human Development, 14, 277-290.

Kemper, S. (1994). Elderspeak: Speech accommodations to older adults. Aging and Cognition, 1, 17-28.

Kennedy, G. E. (1992). Shared activities of grandparents and grandchildren. Psychological Reports, 70, 211-227.

Kirk, R. E. (1995). Experimental design: Procedures for the behavioral sciences (3rd ed.). Pacific Grove, CA: Brooks/Cole.

Kite, M. E., Deaux, K., & Miele, M. (1991). Stereotypes of old and young: Does sex outweigh gender? Psychology and Aging, 6, 19-27.

Knox, V. J., Gekoski, W. L., Kelly, L. E. (1995). The age group evaluation and description (AGED) inventory: A new instrument for assessing stereotypes of and attitudes toward age groups. International Journal of Aging and Human Development, 40, 31-55.

Labouvie-Vief, G., & Baltes, P. (1976). Reduction of adolescent misperceptions of the aged. Journal of Gerontology, 31, 68-71.

Levin, J., & Levin, W. C. (1981). Willingness to interact with an old person. Research on Aging, 3, 211-217.

Lombardo, T. J. (1987). The reciprocity of perceiver and environment: The evolution of James J. Gibson's ecological psychology. Hillsdale, NJ: Lawrence Erlbaum Associates.

McArthur, L. Z., & Baron, R. M. (1983). Toward an ecological theory of social perception. Psychological Review, 90, 215-238.

Miller, L. C., Cody, M. J., McLaughlin, M. L. (1994). Situations and goals as fundamental constructs in interpersonal communication research. In M. L. Knapp & G. R. Miller (Eds.) Handbook of Interpersonal Communication (2nd ed.) (pp. 162-198). Thousand Oaks, CA: Sage.

Mueller, J. H., Wonderlich, S., & Dugan, K. (1986). Self-referent processing of age-specific material. Psychology and Aging, 1, 293-299.

Nussbaum, J. F., Hummert, M. L., Williams, A., & Harwood, J. (1996). Communication and older adults. In B. R. Burleson (Ed.), Communication Yearbook 19 (pp. 1-49). Thousand Oaks, CA: Sage.

Nussbaum, J. F., Thompson, T., Robinson, J. D. (1989). Communication and aging. New York: Harper & Row.

Power, J. G., Murphy, S. T., & Coover, G. (1996). Priming prejudice: How stereotypes and counter-stereotypes influence attribution of responsibility and credibility among ingroups and outgroups. Human Communication Research, 23, 36-58.

Rose-Colley, M., & Eddy, J. M. (1988). Interaction of university students with elderly individuals: An investigation into the correlates. Educational Gerontology, 14, 33-43.

Rosencranz, M. A., & McNevin, T. E. (1969). A factor analysis of attitudes toward the aged. The Gerontologist, 9, 55-59.

Ryan, E. B., Bourhis, R. Y., Knops, U. (1991). Evaluative perceptions of patronizing speech addressed to elders. Psychology and Aging, 6, 442-450.

Ryan, E. B., & Cole, R. (1990). Evaluative perceptions of interpersonal communication with elders. In H. Giles, N. Coupland, and J. M. Wiemann (Eds.), Communication, Health, and the Elderly (pp. 172-191). New York: St. Martins Press.

Ryan, E. B., Giles, H., Bartolucci, G., & Henwood, K. (1986).

Psycholinguistic and social psychological components of communication by and with the elderly. Language and Communication, 6, 1-24.

Ryan, E. B., & Heaven, R. K. B. (1988). The impact of situational context on age-based attitudes. Social Behavior, 3, 105-117.

Ryan, E. B., See, K. K., Meneer, W. B., and Trovato, D. (1992). Age-based perceptions of language performance among younger and older adults. Communication Research, 19, 423-443.

Shaw, R., & Brandford, J. (1977). Introduction: Psychological approaches to the problem of knowledge. In R. Shaw & J. Bransford (Eds.), Perceiving, acting, and knowing: Toward ecological psychology (pp. 3-19). Hillsdale, NJ: Lawrence Erlbaum Associates.

Shaw, R., Turvey, M., & Mace, W. (1982). Ecological psychology: The consequences of a commitment to realism. In W. Weimer and D. Palermo (Eds.), Cognition and symbolic processes, Vol. 2 (pp. 182-203). Hillsdale, NJ: Lawrence Erlbaum Associates.

Schmidt, D. F., & Borland, S. M. (1986). The structures of impressions of older adults: Evidence for multiple stereotypes. Psychology and Aging, 1, 255-260.

Toothaker, L. E. (1991). Multiple comparisons for researchers. Newbury Park, CA: Sage.

- Toothaker, L. E. (1993). Multiple comparison procedures. Newbury Park, CA: Sage.
- Toothaker, L. E., & Miller, L. (1996). Introductory statistics for the behavior sciences (2nd ed.). Pacific Grove, CA: Brooks/Cole Publishing.

Table 1

Demographic Information Regarding Confederates

Confederate	Sex	Age	Marital Status	Occupation (Retired)
Garry	Male	71	Widowed	Salesperson/manager
Leo	Male	73	Married	Professor
Matthew	Male	64	Married	Air force officer
Mavis	Female	80	Married	Real estate agent
Millie	Female	75	Married	Housewife
Verna	Female	63	Married	Housewife

Table 2

Confederates' Scores and Means of AGED Inventory for Stimulus Material

Name of Confederate	Perceived Age	Overall AGED Score	Evaluative Subscale Score	Descriptive Subscale Score
Garry	69.65	x = 15.743	x = 8.050	x = 7.693
Leo*	67.75	x = 16.85	x = 8.964	x = 7.886
Matthew	61.10	x = 19.650	x = 10.271	x = 9.379
Mavis	71.60	x = 16.986	x = 8.679	x = 8.307
Millie*	67.80	x = 17.365	x = 9.129	x = 8.236
Verna	62.49	x = 19.90	x = 10.386	x = 9.514

Note: Names with * indicate selection of confederates as older adult targets.

Table 3

ANOVA Summary F Table for AGED Inventory Scores Associated with Older Adult Targets as a Function of Context

Source	DF	Sums of Squares	Mean Square	F Value	Pr > F
Gender	1	3108.356	3108.356	8.67*	0.0037
Context	2	18348.233	9174.117	25.59***	0.0001
Gender*Context	2	2790.144	1395.072	3.89*	0.0222

Note: * indicates significance at the alpha = 0.05 level.

** indicates significance at the alpha = 0.001 level.

*** indicates significance at the alpha = .0001 level.

Table 4

Mean Ratings of AGED Inventory Scores Associated with Older Adult Targets as a Function of Context

<u>Context</u>	<u>Gender</u>	
	Male	Female
Interaction	139.367 _a	138.633 _a
Noninteraction	130.500 _{a, b}	125.467 _a
Neutral	123.900 _b	104.733 _b

Note: N = 30 participants per cell. Higher numbers denote younger adults' perceptions of more positive attitudes associated with older adult targets. Within each gender, means with the same letter subscript are not significantly different as indicated by the Cicchetti multiple comparison at the $p < .05$ level.

Table 5

Mean Ratings of the Descriptive Subscale Score of the AGED Inventory Associated with Older Adult Targets as a Function of Context

<u>Context</u>	<u>Gender</u>	
	Male	Female
Interaction	65.867 _a	65.767 _a
Noninteraction	60.400 _{a, b}	58.967 _b
Neutral	58.933 _b	54.167 _b

Note: N = 30 participants per cell. Higher numbers denote younger adults' perceptions of more positive descriptive attitudes associated with older adult targets. Within each gender, means with same letter subscript are not significant difference as indicated by Cichetti's multiple comparison procedures at the $p < .05$ level.

Table 6

Mean Ratings of the Evaluative Subscale Score of the AGED Inventory Associated with Older Adult Targets as a Function of Context

<u>Context</u>	<u>Gender</u>	
	Male	Female
Interaction	73.500 _a	72.867 _a
Noninteraction	70.100 _a	66.500 _a
Neutral	64.567 _b	66.500 _b

Note: N = 30 participants per cell. Higher numbers denote younger adults' perceptions of more positive evaluative attitudes associated with older adult targets. Within each gender, means with the same letter subscript are not significantly different as indicated by Cicchetti at the $p < .05$ level.

Table 7

ANOVA Summary F Table for LIA Scale Scores Associated with Older Adult Targets as a Function of Context

Source	DF	Sums of Squares	Mean Square	F Value	Pr > F
Gender	1	276.272	276.272	1.54	0.2156
Context	2	4191.944	2095.972	11.72***	0.0001
Gender*Context	2	2435.878	1217.939	6.81**	0.0222

Note: * indicates significance at the $\alpha = 0.05$ level.

** indicates significance at the $\alpha = 0.001$ level.

*** indicates significance at the $\alpha = 0.0001$ level.

Table 8

Mean Ratings of the LIA Scale Scores Associated with Older Adult Targets as a Function of Context

<u>Context</u>	<u>Gender</u>	
	Male	Female
Interaction	89.100 _a	94.633 _a
Noninteraction	84.400 _a	83.667 _b
Neutral	86.400 _a	74.167 _c

Note: N = 30 participants per cell. Higher numbers denote younger adults' perceptions of more positive language abilities associated with older adult targets. Within each gender, means with same letter subscript are not significant difference as indicated by Cicchetti's multiple comparison procedures at the $p < .05$ level.

Table 9

Mean Ratings of the Receptive Subscale Scores of the LIA Scale Associated with Older Adult Targets as a Function of Context

<u>Context</u>	<u>Gender</u>	
	Male	Female
Interaction	46.133 _a	51.733 _a
Noninteraction	43.633 _a	43.767 _b
Neutral	42.833 _a	38.533 _c

Note: N = 30 participants per cell. Higher numbers denote younger adults' perceptions of more positive receptive language abilities associated with older adult targets. Within each gender, means with same letter subscript are not significant difference as indicated by Cicchetti's multiple comparison procedures at the $p < .05$ level.

Table 10

Mean Ratings of the Expressive Subscale Scores of the LIA Scale Associated with Older Adult Targets as a Function of Context

<u>Context</u>	<u>Gender</u>	
	Male	Female
Interaction	42.967 _a	42.900 _a
Noninteraction	40.767 _a	39.900 _a
Neutral	43.567 _a	35.633 _b

Note: N = 30 participants per cell. Higher numbers denote younger adults' perceptions of more positive expressive language abilities associated with older adult targets. Within each gender, means with same letter subscript are not significant difference as indicated by Cicchetti's multiple comparison procedures at the $p < .05$ level.

APPENDIX A

Confederate Informed Consent Form

This document will serve as a participant consent form to participate in a research project entitled, "An Application of the Ecological Perspective on Older Adult Stereotypes: An Examination of Traits and Language Beliefs Associated with Older Adults." This project is under the authority of the University of Oklahoma, Norman campus, and is conducted by Annette Folwell.

Important Considerations Regarding This Research Project:

1. **This study will involve approximately 30 minutes of your time.** You will be asked to appear in one to three videotapes. Your participation in these videotapes will consist of any or all of the following activities: (1) having a conversation with a younger adult; (2) reading a book; or (3) looking at the video camera. The videotape(s) will be viewed by 30-180 people who will rate the tape regarding characteristics and language abilities of the person shown in the tape.
2. **Your participation in this project is voluntary.** You are free to withdraw from the study at any time, for any reason. You will not be penalized in any way for withdrawing from this study; in other words, you will still receive \$20.00 for your time.
3. **Your identity will be kept confidentially; you will never be identified by your real name in this study.** In all phases of this research project you will be identified as an alias name. The videotapes will be kept in a locked file cabinet in my office. I will be the only person who has access to the videotapes but 30-180 people will be viewing the videotape.
4. **If you have any questions about the research project or your rights as a research subject,** you can ask the researcher now or call Annette Folwell at 325-3111.

After reading this form and if you agree to be a video tape participant in this research project, please sign the bottom of the page and then complete the questions on the following page.

Signature: _____

Print name: _____

APPENDIX B

Stimulus Material Rating Participant Informed Consent Form

This document will serve as a participant consent form to participate in a research project entitled, "An Application of the Ecological Perspective on Older Adult Stereotypes: An Examination of Traits and Language Beliefs Associated with Older Adults." This project is under the authority of the University of Oklahoma, Norman campus, and is conducted by Annette Folwell.

Important Considerations Regarding This Research Project:

1. **This study will involve approximately 30 minutes of your time.** You will be asked to view six videotapes and then fill out a seven part questionnaire.
2. **Your participation in this project is voluntary.** You are encouraged to participate but you are not required to participate in the study. You are free to withdraw from the study at any time, for any reason. You will not be penalized in any way for withdrawing from this study.
3. **Your responses will remain anonymous.** In all phases of this research project you will be identified as a number, never by name. The questionnaire that you fill out will be kept in a locked file cabinet in my office. I will be the only person who has access to the questionnaires.
4. **If you have any questions about the research project or your rights as a research subject,** you can ask the researcher now or call Annette Folwell at 325-3111.

After reading this form and if you agree to be a participant in this research project, then please complete the following information.

Print Name: _____

Signature: _____

APPENDIX C

Participant Demographic Questions

Please complete the following demographic questions by circling or filling in the needed information.

1. Sex: MALE FEMALE

2. Age: _____

3. How do you describe yourself?

African American or Black _____

American Indian or Native Alaskan _____

Mexican American or Chicano _____

Asian or Pacific American _____

Puerto Rican _____

Other Hispanic or Latin American _____

European American or White _____

Please specify if none of the above are correct: _____

4. Are you currently:

Married _____

Divorced _____

Separated _____

Single _____

5. Have you ever lived with someone over the age of 65? YES NO

If yes, please specify the person and the circumstances:

1. Considerate	: ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Inconsiderate
2. Independent	: ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Dependent
3. Boastful	: ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Modest
4. Hopeful	: ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Dejected
5. Dishonest	: ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Honest
6. Sexless	: ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Sexy
7. Trustful	: ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Suspicious
8. Inflexible	: ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Flexible
9. Impatient	: ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Patient
10. Expectant	: ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Resigned
11. Other-oriented	: ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Self-oriented
12. Unproductive	: ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Productive
13. Insincere	: ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Sincere
14. Active	: ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Passive
15. Satisfied	: ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Dissatisfied
16. Unsociable	: ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Sociable
17. Sensitive	: ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Insensitive
18. Timid	: ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Assertive
19. Undignified	: ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Dignified
20. Imaginative	: ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Unimaginative
21. Foolish	: ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Wise
22. Busy	: ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Idle
23. Temperamental	: ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Even-temper
24. Involved	: ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Apathetic
25. Generous	: ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Selfish

26. Cautious	: ____ : ____ : ____ : ____ : ____ : ____ : ____ :	Adventurous
27. Demanding	: ____ : ____ : ____ : ____ : ____ : ____ : ____ :	Accepting
28. Optimistic	: ____ : ____ : ____ : ____ : ____ : ____ : ____ :	Pessimistic

Evaluative Items:

Items 1, 4, 5, 8, 9, 12, 13, 16, 17, 20, 21, 24, 25, and 28.

Descriptive Items:

Items 2, 3, 6, 7, 10, 11, 14, 15, 18, 19, 22, 23, 26, and 27.

APPENDIX E

Younger Adult Participant Informed Consent Form

This document will serve as a participant consent form to participate in a research project entitled, "The Effects of Interaction and Context on Older Adult Stereotypes." This project is under the authority of the University of Oklahoma, Norman campus, and is conducted by Annette Folwell.

Important Considerations Regarding This Research Project:

1. **This study will involve approximately 30 minutes of your time.** You will be asked to view a videotape and then fill out a three-part questionnaire.
2. **Your participation in this project is voluntary.** You are encouraged to participate but you are not required to participate in the study. You are free to withdraw from the study at any time, for any reason. You will not be penalized in any way for withdrawing from this study. In other words, you will receive research participation credit even if you do not complete the questionnaire.
3. **Your responses will remain anonymous.** In all phases of this research project you will be identified as a number, never by name. There is no way your answers can be traced back to you. The questionnaire that you fill out will be kept in a locked file cabinet in my office. I will be the only person who has access to the questionnaires.
4. **If you have any questions about the research project** or your rights as a research subject, you can ask the researcher now or call Annette Folwell at 325-3111.

After reading this form and if you agree to be a participant in this research project, then please complete the following information.

Print Name: _____

Instructor's Name: _____

Class Days and Time: _____

Signature: _____

APPENDIX F

Language in Adulthood (LIA) Scale

1. S/he loses track of what s/he is talking about.
 Strongly : ____ : ____ : ____ : ____ : ____ : ____ : ____ : Strongly
 Agree Disagree
2. S/he has a problem with saying a word that is on the tip of her/his tongue.
 Strongly : ____ : ____ : ____ : ____ : ____ : ____ : ____ : Strongly
 Agree Disagree
3. S/he has a problem with getting the facts straight when telling a story.
 Strongly : ____ : ____ : ____ : ____ : ____ : ____ : ____ : Strongly
 Agree Disagree
4. S/he loses track of the topic of conversation.
 Strongly : ____ : ____ : ____ : ____ : ____ : ____ : ____ : Strongly
 Agree Disagree
5. S/he loses track of who said what in a conversation.
 Strongly : ____ : ____ : ____ : ____ : ____ : ____ : ____ : Strongly
 Agree Disagree
6. S/he uses fewer difficult words.
 Strongly : ____ : ____ : ____ : ____ : ____ : ____ : ____ : Strongly
 Agree Disagree
7. S/he often gets frustrated because s/he cannot hear.
 Strongly : ____ : ____ : ____ : ____ : ____ : ____ : ____ : Strongly
 Agree Disagree
8. S/he thinks that people speak too softly.
 Strongly : ____ : ____ : ____ : ____ : ____ : ____ : ____ : Strongly
 Agree Disagree

9. S/he often ask others to repeat what they've said.
Strongly : ____ : ____ : ____ : ____ : ____ : ____ : ____ : Strongly
Agree Disagree
10. S/he thinks that others speak too fast.
Strongly : ____ : ____ : ____ : ____ : ____ : ____ : ____ : Strongly
Agree Disagree
11. S/he thinks that people use long sentences are difficult to follow.
Strongly : ____ : ____ : ____ : ____ : ____ : ____ : ____ : Strongly
Agree Disagree
12. S/he recognizes meanings of more and more words.
Strongly : ____ : ____ : ____ : ____ : ____ : ____ : ____ : Strongly
Agree Disagree
13. S/he enjoys conversing mostly with people her/his own age.
Strongly : ____ : ____ : ____ : ____ : ____ : ____ : ____ : Strongly
Agree Disagree
14. S/he thinks that more and more people enjoy her/his storytelling.
Strongly : ____ : ____ : ____ : ____ : ____ : ____ : ____ : Strongly
Agree Disagree
15. S/he has trouble saying what sh/he want when pressed for time.
Strongly : ____ : ____ : ____ : ____ : ____ : ____ : ____ : Strongly
Agree Disagree
16. Noisy situations make it difficult for her/him to understand.
Strongly : ____ : ____ : ____ : ____ : ____ : ____ : ____ : Strongly
Agree Disagree
17. S/he is sincere.
Strongly : ____ : ____ : ____ : ____ : ____ : ____ : ____ : Strongly
Agree Disagree
18. S/he is more to blame when s/he cannot understand.
Strongly : ____ : ____ : ____ : ____ : ____ : ____ : ____ : Strongly
Agree Disagree

19. S/he often finds her/himself doing most of the talking.

Strongly : ____ : ____ : ____ : ____ : ____ : ____ : ____ : Strongly
 Agree Disagree

Receptive Language Subscale Items:

Items 4, 5, 7, 8, 9, 10, 11, 12, 16, and 18.

Expressive Language Subscale Items:

Items 1, 2, 3, 6, 13, 14, 15, 17, and 19.

APPENDIX G

Institutional Review Board Approval



The University of Oklahoma

OFFICE OF RESEARCH ADMINISTRATION

March 7, 1997

Ms. Annette L. Folwell
Department of Communication
University of Oklahoma

Dear Ms. Folwell:

The Institutional Review Board-Norman Campus has reviewed the additional material you submitted for your proposal, "An Application of the Ecological Approach to Older Adult Stereotypes: An Examination of Traits and Language Beliefs Associated with Older Adults," 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 your project.

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 Human 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 twelve 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,

A handwritten signature in cursive script, reading "Karen M. Petry".

Karen M. Petry
Administrative Officer
Institutional Review Board-Norman Campus

KMP:sg
97-109

cc: Dr. E. Laurette Taylor, Chair, IRB
Dr. Jon F. Nussbaum, Communication