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# An Examination of the Social Acceptability of Elderspeak by College Students and Community Dwelling Older Adults

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An Examination of the Social Acceptability of Elderspeak by College Students and Community

Dwelling Older Adults

By  
Kasie L. Hummel

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree  
Master of Arts  
In  
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Minnesota State University, Mankato  
Mankato, Minnesota

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An Examination of the Social Acceptability of Elderspeak by College Students and Community Dwelling Older Adults

Kasie L. Hummel

This thesis paper has been examined and approved by the following members of the thesis committee.

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Abstract

The dissonance that exists in the literature, in regards to Elderspeak, has helped pave the way for the current study. The main goal of this research is to understand under what circumstances college students and older adults perceive Elderspeak to be acceptable or unacceptable and to compare the results between these two specific populations. A 37-item questionnaire was used to empirically test the validity of old age cues described in the communication accommodation theory. Consistent with this theory and previous research, it was hypothesized that Elderspeak would be rated as more appropriate in response to negative factors (e.g., physical or cognitive impairments) and that there would be a significant difference in responding between the two age groups. The results of this study supported the purposed hypothesis. First, negative factors such as physical and cognitive impairments led to higher ratings of appropriateness. In addition, college students significantly rated Elderspeak as more appropriate than did the older adults. One implication of this research is that the factors and cues that tend to evoke Elderspeak may provide more information for the education and training of those who will be caring for and interacting with older adults.

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## **Chapter I**

### **Introduction**

By the year 2050, the United States will be comprised of 87 million people over the age of 65 and 21 million people over the age of 85 (Williams & Warren, 2009). The elderly demographically make up the fastest growing sector of the population (U.S. Census Bureau, 2005). According to Williams and Warren (2009) with the aging process may come a decline in autonomy especially in regards to decision making. This decline often increases loneliness, depression, and promotes cognitive and physical deterioration. As a result, many families will be forced to care for their elders or place them in a long-term care facility.

Due to this growing sector of the population, interest in the field of language and communication among the elderly has increased (Ryan, Giles, Bartolucci, & Henwood, 1986). Social gerontologists propose that aging successfully is dependent on the type of interactions that an individual experiences. Furthermore, interactions that include communication that could be seen as patronizing foster dependency and decrease an individual's self-worth (La Tourette & Meeks, 2000). The result is often an increase in the rate of mental and physical decline. Not only does this decline decrease quality of life, it can also put financial stress on an already vulnerable population. This financial stress is due to the high costs of institutionalization that can ensue when mental and physical health declines so severely that the individual is no longer able to care for themselves or capable of living independently.

### **Defining Elderspeak**

One type of speech that may contribute to the downward spiral of older adults' quality of life, as well as their mental and physical decline is called Elderspeak. Elderspeak is a simplified

form of speech that includes slower speech, elevated pitch and intonation, close-ended questions, simplification of grammar and vocabulary, and increased loudness (Kemper, Finter-Urczyk, Ferrell, Harden, & Billington, 1998). It is often described as a form of “baby talk.” Elderspeak also includes the use of diminutives or inappropriate references (e.g., honey, sweetie, chief), repetition of words or phrases, and collective pronoun usage (e.g., saying “let’s go to the bathroom” when clearly the older individual is the only one going to use the restroom (Balsis & Carpenter, 2005; Kemper et al, 1998).

### **Communication Accommodation Theory**

The Communication Accommodation Theory (CAT) was developed to explain when and why Elderspeak is used as well as the consequences of Elderspeak. According to the CAT, conversants change their speech depending on the individual with who they are conversing. The goal of this alteration is to enhance communication and understanding (Ryan, Hummert, & Boich, 1995). However, the theory claims that parts of Elderspeak such as semantic elaborations and the repetition of words or phrases are considered appropriately accommodating and seem to help older adults accomplish tasks. In contrast, other parts of Elderspeak such as high pitch are considered inappropriately accommodating. They impede older adults’ abilities to accomplish tasks and cause older adults to view themselves as incompetent (Balsis & Carpenter, 2005).

Ryan et al. (1995) developed a similar theory to CAT, known as the Communication Predicament of Aging Model. According to the model, patronizing communication is utilized when people over accommodate their speech for the elderly because of stereotypes and negative expectations. This accommodation is typically instigated by old-age cues including physical characteristics of the individual (e.g., gray hair, wrinkles, clothing), use of mobility aids (e.g., wheelchairs), relationship (e.g., grandmother), and the location of the encounter (e.g., long-term

care facility, doctors office; Ryan et al., 1995). Evidence does suggest that individuals have positive and negative stereotypes of older people. However the communication predicament transpires when cues provoke negative stereotypes (Ryan et al., 1995).

The Communication Predicament of Aging Model also outlines numerous negative consequences that can result from Elderspeak. Patronizing speech implies a sense of diminished competency, helplessness, and weakness. In situations where age cues of the elderly insinuate age-stereotypes, a conversant will likely assume that they have impairments that require speech modification, such adaptations are frequently in the form of Elderspeak (Ryan et al., 1995). The CAT and Communication Predicament of Aging Model proposes that patronizing communication reinforces age stereotypes, as well as limits the opportunity for rewarding communication. In addition, patronizing communication produces negative consequences on the quality of life of the older adult and decreases their self-esteem (Ryan et al., 1995).

### **Empirical Literature Supporting the Communication Predicament of Aging Model**

A relatively large body of research has provided support for various aspects of the Communication Accommodation Theory and the Communication Predicament of Aging Model. In a study conducted in a nursing home by Caporeal (1981) it was discovered that 22% of communication in the facility was characterized as Elderspeak. Not only does this type of speech occur within nursing facilities and institutions, but also within the community. Kemper, Othick, Warren, Gubarchuk, and Gerhing (1996) found that Elderspeak is not necessarily prompted by an individual's behavior, but instead because of stereotypes regarding this population. This was established by the fact that the young adults in the study would unexpectedly employ Elderspeak when communicating with the elderly. It is suggested that this over accommodating speech is tolerated more in circumstances where there are lesser expectancies of an older adult's



competence, for example in the memory care unit of a nursing home. Conversely, community dwelling adults rate this type of communication as less favorable than adults who reside in a nursing facility or institution (Ryan et al., 1995).

Though empirical evidence is lacking for this hypothesis, the psychosocial consequences that occur as a result of this type of speech are thought by caregivers to be counterbalanced by the benefits for improving communication (Kemper et al., 1998). Caregivers frequently rationalize their practice of Elderspeak. Many believe that it aids in adult comprehension, communicates caring, and makes the older adult more compliant and comfortable (Herman & Williams, 2009; La Tourette & Meeks, 2000). However, they are unaware that it truly has the opposite effect and reinforces dependency and decreases the individual's competency (Ryan et al., 1995). For example, if an older adult wrongly believes that they are unable to complete a task, they might ask for help with things they can complete by themselves. As time passes, they may lose their autonomy and become dependent on others to complete tasks they could possibly complete on their own. In addition, prior studies have demonstrated a relationship between resistiveness to care and the use of Elderspeak. In research completed by Herman and Williams (2009) adults in a nursing home were twice as likely to resist care subsequent to the utilization of Elderspeak than when ordinary speech was used.

Lastly, Elderspeak is not only detrimental to the well being of the recipient; it can also have a negative impact on the speaker. Individuals who use this type of speech, compared to those who use normal speech, are seen as less competent, less helpful, and less trustworthy (Balsis & Carpenter, 2005). In a study done that evaluated interactions between a nurse and nursing home resident, observers who witnessed a nurse utilizing Elderspeak rated her more negatively than a nurse using normal speech (Balsis & Carpenter, 2005). Therefore, although this

speech is well intended, it often has unintended effects on both the recipient as well as the speaker (Kemper et al., 1997).

### **Purpose of the Current Study**

As stated previously, by 2050 the majority of the United States population will be over the age of 65. This means that many of the young adults today will be responsible for caring for this aging population, whether they are caring for their own parents or they work in the health-care field. In one context or another, young adults today will have contact with this population. The family members of these individuals and students currently enrolled in college may not realize the impact that they have when they use Elderspeak, nor intend its negative consequences that can result.

The dissonance that exists in the literature, in regards to Elderspeak, has helped pave the way for the current study. The main goal of this research is to understand under what circumstances college students and older adults perceive Elderspeak to be acceptable or unacceptable and to compare the results between these two specific populations. It is hoped that this research will help shed light onto why individuals use this form of speech and what contextual factors are more or less likely to evoke this type of modification in communication. This study is intended to empirically test the validity of old age cues described in the communication accommodation theory, which may provide more information for the education and training of those who will be caring for and interacting with this unique and vulnerable population of individuals.

## Chapter II

### Method

#### Participants

Participants were 85 students attending a medium sized university and 46 community-dwelling older adults who attended activities at a local senior center, both of which were located in the Midwestern United States. Of the participants who completed the survey the majority were women, (women=106, men=25). Participants ranged in age from 18 to 85 years of age ( $M=38.86$ ,  $SD=24.20$ ) and 93.9% were from the Midwest (Midwest=123, other=8). The majority of participants (92.4%) reported their ethnicity as “Caucasian” (n=121), followed by “Arab” (n=2), “African” (n=1), “South Korean” (n=1), “Hmong” (n=1), “mixed” (n=1), “American born Chinese” (n=1), and “Latvian” (n=1). The majority of college students reported their highest level of education attained as “senior (91+ credits completed)” (n=32), followed by “freshman (0-30 credits completed)” (n=20), “sophomore (31-60 credits completed)” (n=19), “junior (61-90 credits completed)” (n=13), and “graduated/no longer attending” (n=1). Of the community-dwelling older adult participants, 100% reported their highest level of education as “graduated/no longer attending.” Lastly, 25.2% of participants (n=33) reported that they “currently or have worked in a long-term care facility” and 74.8% (n=98) reported that they have not.

Table 1

*Demographic Information*

	<b>Older Adults</b>	<b>College Students</b>	<b>Total</b>
<b>Gender</b>	Male=21.7% Female=78.3%	Male=17.6% Female=82.4%	Male=19.1% Female=80.9%
<b>Originality</b>	Midwest=93.5% Other=6.5%	Midwest=94.1% Other=5.9%	Midwest=93.9% Other=6.1%
<b>Year in School</b>	Graduated/No Longer Attending=100%	Freshman=23.5% Sophomore=22.4% Junior=15.3% Senior=37.6% Graduate/No longer attending=1.2%	Freshman=15.3% Sophomore=14.5% Junior=9.9% Senior=24.4% Graduate/No longer attending=35.9%
<b>Ethnicity</b>	Caucasian=93.5% Other=4.3%	Caucasian=91.8% Other=7.1%	Caucasian=92.4% Other=6.1%
<b>Number Older Adults</b>	<i>M</i> =75.43 <i>SD</i> =82.7	<i>M</i> =12.93 <i>SD</i> =21.8	<i>M</i> =35.05 <i>SD</i> =60
<b>Worked in LTC</b>	No=80.4% Yes=19.6%	No=71.8% Yes=28.2%	No=74.8% Yes=25.2%

**Settings**

Data regarding the community-dwelling older adult population were collected on-site at a local senior center (n=46). The researcher collected all data attained at the senior center. The data regarding the college student sample was collected electronically (n=86) through an Internet based version of the questionnaire.

**Materials**

The questionnaire used in the current study was rationally derived by a team of researchers and was adapted from a previously completed study. The final version, which can be seen in Appendix A, was comprised of three main sections. The first section was a demographic component that included seven questions, which were intended to distinguish characteristics of the participants (e.g., gender, ethnicity, education level). After the demographic component participants were presented with instructions that provided a detailed description of Elderspeak and brief examples of what Elderspeak might sound like. It did not ask participants whether or

not they used this type of speech in order to reduce the likelihood that participants would respond in a socially desirable manner. The second section was a series of 33 items that described different characteristics/cues (e.g., If the older adult had a hearing impairment; If you were interacting with the older adult and no one else was around). Participants rated each characteristic/cue on a scale from one to four regarding the degree to which they felt Elderspeak was appropriate to use in response to that characteristic/cue (1=not at all appropriate, 4= very appropriate). The last section included four open-ended items that were intended to give participants an opportunity to provide more information or voice their opinion on characteristics or situations that the previous section did not cover.

As described previously, the second section of the questionnaire was rationally derived and included 33 items regarding different characteristics/cues associated with the use of Elderspeak (e.g., if the older adult was a family member versus being a stranger). From those 33 items, ten subscales were rationally constructed. Seven of the subscales were concerned with characteristics of the older adult, specifically “gender” (e.g., if the older adult was female), “ethnicity” (e.g., if the older adult was Caucasian), “physical impairment” (e.g., if the older adult had a physical impairment), “cognitive impairment” (e.g., if the older adult has dementia), “job” (e.g., if the older adult had a blue collar job), “financial” (e.g., if the older adult was financially disadvantaged), and “emotional/behavior” (e.g., if the older adult was happy). The remaining two subscales were concerned with “situational” factors (e.g., if you encountered the older adult in a hospital) and “relational” factors (e.g., if the older adult was a family member). A complete list of the subscales and pertinent items can be seen in Appendix B.

## **Procedure**

Data collection sessions for the older adult sample were conducted on-site at the previously mentioned senior center. The senior center was first contacted to inquire about their willingness to participate in the study. After receiving permission to collect data and gathering information as to when the senior center would be busiest, the researcher visited the facility. Data was collected before and after scheduled activities such as exercise classes or recreational activities. Participants were provided a brief description of the survey prior to filling out an informed consent. After signing an informed consent form and asking any questions they may have, some participants elected to take the survey home and return it later. Participation was considered complete when the participant was done completing the questionnaire and had returned it to the researcher. The community-dwelling older adults did not receive any compensation for their participation.

The college student sample was collected electronically using an Internet based version of the questionnaire. Participants were provided a brief description of the survey prior to electronically signing an informed consent. The survey presented via the web was identical to that of paper copy used with the older adult sample. Members of the college student sample were able to receive class credit for participating in the survey.

All demographic and scaled items that participants failed to complete were classified as missing data (i.e., left blank in the data set). The purpose of this was to permit the researchers to utilize the successfully completed items in the relevant analyses while excluding those that were not completed from the analyses. This was done to ensure accurate analysis and interpretation of the data. Strict completion criteria were in place with participants needing to have completed at

least 80% of the survey to be counted in the sample. Survey completion was at 100% during the study.

### **Hypotheses**

Hypotheses for this study were the following: 1) women are more likely to be rated as appropriate recipients of Elderspeak, 2) those with physical impairments or who exhibit physical old age cues (i.e., gray hair and wrinkles) are more likely to be rated as appropriate recipients, 3) those with cognitive deficits are more likely to be rated as appropriate recipients, 4) those who have held a “blue collar” job are more likely to be rated as appropriate recipients, 5) those who are financially disadvantaged are more likely to be rated as appropriate recipients, 6) those who appear distressed or more emotional are more likely to be rated as appropriate recipients, 7) when no one else is present to observe an interaction there is a higher likelihood of Elderspeak being rated as appropriate, and 8) when Elderspeak occurs in a care setting there is a higher likelihood of Elderspeak being rated as appropriate.

### **Chapter III**

#### **Results**

Two sets of analyses were conducted for this study. First, comparative analyses of the nine constructed subscales were conducted. This was done in order to determine whether or not specific old age cues or situational characteristics evoked a higher rating of appropriateness in regards to the use of Elderspeak. In addition, analyses were conducted in order to determine whether the college student sample's answers were significantly different from the community dwelling adults sample. The second set of analyses involved a qualitative evaluation of the open-ended.

#### **Tests of Hypotheses**

Ten repeated-measures Analysis of Variance (ANOVA) calculations were performed to test the proposed hypotheses and to determine whether there was a significant difference between the two groups sampled. For all analyses, if the assumption of sphericity was violated degrees of freedom were corrected using the Greenhouse-Geisser estimates of sphericity. A complete breakdown of the subscales can be found in Appendix B.

A 2 x 2 mixed design ANOVA was used during the subscales analysis. For the gender subscale, it was hypothesized that women would be more likely to be rated as appropriate recipients of Elderspeak. Statistical analysis revealed that there was a significant main effect of gender,  $F(1,128)=3.73, p<.01$ , where women were rated as more appropriate recipients of Elderspeak compared to men. There also was a difference in responding between the two samples, with the college-aged participants having significantly higher ratings of appropriateness



within this subscale,  $F(1,128)=5.63$ ,  $p<.05$ . Please refer to Appendix E for the means of each item for both the college-aged and older adult sample.

A 2 x 5 mixed design ANOVA was used during the subscales analysis. For the physical impairment subscale, it was hypothesized that those with physical impairments or who exhibit physical old age cues (i.e., gray hair and wrinkles) were more likely to be rated as appropriate recipients of Elderspeak. Statistical analysis revealed that there was a significant main effect of physical characteristics,  $F(3.02, 374.49)=10.34$ ,  $p<.01$ , where those with physical impairments were rated as more appropriate recipients of Elderspeak compared to those who are healthy. All items within the subscale were compared to Item #9 in order to complete the analysis. Item #9 was chosen as the control question because it differed from the rest of the items in that all other items in the subscale specified the presence some type of physical impairment or clear indicator of old age while item #9 indicated that the older adult appeared healthy. Sphericity was violated within this analysis, therefore degrees of freedom were corrected using the Greenhouse-Geisser estimates of sphericity ( $\epsilon=.76$ ). Please see Table 1 for results of the comparisons between items in the subscale. There also was a difference in responding between the two samples, with the college-aged participants having significantly higher ratings of appropriateness within this subscale,  $F(1,124)=5.12$ ,  $p<.05$ . Please refer to Appendix E for the means of each item for both the college-aged and older adult sample.

Table 1

*Results of Physical Impairment Subscale*

Physical	F Value	Significance
Q9-Q5	7.59	.007**
Q9-Q6	4.85	.030*
Q9-Q7	24.94	.000**
Q9-Q8	12.0	.001**

\*\* Statistically significant ( $p < .01$ )

\* Statistically significant ( $p < .05$ )

Q = “question”

A 2 x 3 mixed design ANOVA was used during the subscales analysis. In regards to the cognitive impairment subscale, it was hypothesized that those with cognitive deficits are more likely to be rated as appropriate recipients of Elderspeak. Statistical analysis revealed that there was a significant main effect of cognitive deficits,  $F(1.48, 189.88)=40.67, p < .01$ , where those with cognitive deficits were rated as more appropriate recipients of Elderspeak compared to those who do not have cognitive impairments. All items within the subscale were compared to Item #12 in order to complete the analysis. Item #12 was chosen as the control question because it differed from the rest of the items in that all other items in the subscale indicated some form of cognitive impairment while item #12 indicated that the older adult had “full mental capacity”. Please see Table 2 for results of the comparisons between items in the subscale. Sphericity was violated within this analysis, therefore degrees of freedom were corrected using the Greenhouse-Geisser estimates of sphericity ( $\epsilon=.74$ ). There also was a difference in responding between the two samples, with the college-aged participants having significantly higher ratings of appropriateness within this subscale,  $F(1,128)=7.45, p < .05$ . Please refer to Appendix E for the means of each item for both the college-aged and older adult sample.

Table 2

*Results of Cognitive Impairment Subscale*

Cognitive	F Value	Significance
Q12-Q10	45.82	.000**
Q12-Q11	48.38	.000**

\*\* Statistically significant ( $p < .01$ )

Q = “question”

A 2 x 3 mixed design ANOVA was used during the subscales analysis. For the job subscale, it was hypothesized that those who have held a “blue collar” job are more likely to be rated as appropriate recipients of Elderspeak. Statistical analysis revealed that there was not a significant main effect of job,  $F(1.73, 219.41)=1.01, p > .05$ . Therefore, results did not support the hypothesis. All items within the subscale were compared to Item #13 in order to complete the analysis. Item #13 was chosen as the control question because it differed from the rest of the items in that the other items in the subscale specified what might be considered less prestigious jobs while item #13 indicated the older adult held a “prestigious job.” Sphericity was violated within this analysis, therefore degrees of freedom were corrected using the Greenhouse-Geisser estimates of sphericity ( $\epsilon = .86$ ). Please see Table 3 for results of the comparisons between items in the subscale. There was a difference in responding between the two samples, with the college-aged participants having significantly higher ratings of appropriateness within this subscale,  $F(1,127)=8.58, p < .01$ . Please refer to Appendix E for the means of each item for both the college-aged and older adult sample.

Table 3

*Results of Job Subscale*

Job	F Value	Significance
Q13-Q14	1.41	.238 ns
Q13-Q15	1.56	.214 ns

ns=not significant  
Q = "question"

A 2 x 2 mixed design ANOVA was used during the subscales analysis. In reference to the financial subscale, it was hypothesized that those who are financially disadvantaged are more likely to be rated as appropriate recipients of Elderspeak. Statistical analysis revealed that there was not a significant main effect of finances,  $F(1,124)=.661, p>.05$ . Therefore, results did not support the proposed hypothesis. However, there was a difference in responding between the two samples, with the college-aged participants having significantly higher ratings of appropriateness within this subscale,  $F(1,124)=4.72, p<.05$ . Please refer to Appendix E for the means of each item for both the college-aged and older adult sample.

A 2 x 4 mixed design ANOVA was used during the subscales analysis. For the emotional subscale, it was hypothesized that those who appear distressed or more emotional are more likely to be rated as appropriate recipients of Elderspeak. Statistical analysis revealed that there was a significant main effect of emotions,  $F(2.04,257.06)=3.43, p<.05$ , where those who appear emotionally distressed were rated as more appropriate recipients of Elderspeak compared to those who are happy. All items within the subscale were compared to Item #21 in order to complete the analysis. Item #21 was chosen as the control question because it differed from the rest of the items in that the other items in the subscale indicated the older adult appeared distress, angry or calm while item #21 indicated the older adult "appeared happy." Sphericity was violated within this analysis. Therefore, degrees of freedom were corrected using the

Greenhouse-Geisser estimates of sphericity ( $\epsilon=.68$ ). Please see Table 4 for results of the comparisons between items in the subscale. There was a difference in responding between the two samples, with the college-aged participants having significantly higher ratings of appropriateness within this subscale,  $F(1,126)=6.65, p<.05$ . Please refer to Appendix E for the means of each item for both the college-aged and older adult sample.

Table 4

*Results of Emotional Subscale*

Emotional	F Value	Significance
Q21-Q18	.809	.370 ns
Q21-Q19	2.86	.093 ns
Q21-Q20	1.13	.289 ns

ns=not significant  
Q = "question"

Lastly, the situational subscale was broken down into two subsections, subsection one consisted of questions 27 and 28 and subsection two consisted of questions 25, 26, 29, 30, 31, 32, and 33. A 2 x 2 mixed design ANOVA was used during the subsections analysis. For the situational subsection one, it was hypothesized that when nobody is present to witness an interaction there is a higher likelihood of Elderspeak being rated as appropriate. Statistical analysis revealed that there was not a significant main effect,  $F(1,128)=.001, p>.05$ . Therefore, results did not support the proposed hypothesis. A 2 x 7 mixed design ANOVA was used during the subsections analysis. In regards to the situational subsection two, it was hypothesized that when Elderspeak occurs in a care setting there is a higher likelihood of Elderspeak being rated as appropriate. Statistical analysis revealed that there was a significant main effect of location,  $F(4.82, 578.25)=7.85, p<.01$ , where if the older adult was in a nursing home or if one was providing assistance to the older adult, Elderspeak was rated as being more appropriate. All items within the subscale were compared to Item #30 in order to complete the analysis. Item #30

was chosen as the control question because it differed from the rest of the items in that all other items in this subsection described places considered to be care settings where older adults are typically encountered (e.g., nursing home, hospital) while item #30 described a neutral location (i.e., a grocery store). Sphericity was violated within this analysis, therefore degrees of freedom were corrected using the Greenhouse-Geisser estimates of sphericity ( $\epsilon=.80$ ). Please see Table 5 for results of the comparisons between items in the subscale. There was also a difference in responding between the two samples, with the college-aged participants having significantly higher ratings of appropriateness within this subscale,  $F(1,120)=4.71, p<.05$ . Please refer to Appendix E for the means of each item for both the college-aged and older adult sample.

Table 5

*Results of Situational Subsection 2*

Situational	F Value	Significance
Q30-Q25	10.82	.001**
Q30-Q26	.788	.376 ns
Q30-Q29	20.04	.000**
Q30-Q31	3.49	.064 ns
Q30-Q32	1.90	.171 ns
Q30-Q33	.048	.827 ns

\*\* Statistically significant ( $p<.01$ )

ns=not significant

Q = “question”

**Exploratory Analyses**

Additional exploratory analyses were conducted in order to determine if other factors would influence the perceived appropriateness of Elderspeak. These analyses involved variables that could potentially be important in terms of the perceived appropriateness of Elderspeak, but where empirical literature exploring these variables is lacking. A 2 x 2 mixed design ANOVA was used during the subscales analysis. In reference to the ethnicity subscale, there was no significant main effect for ethnicity, indicating that an individual’s ethnic background does not

affect the likelihood of Elderspeak being perceived as appropriate. However, there was a difference in responding between the two samples, with the college-aged participants having significantly higher ratings of appropriateness within this subscale,  $F(1,126)=9.92, p<.01$ . Please refer to Appendix E for the means of each item for both the college-aged and older adult sample.

A 2 x 3 mixed design ANOVA was used during the subscales analysis. For the relational subscale, there was a significant main effect for relationship,  $F(1.32, 167.40)=17.29, p<.01$ . All items within the subscale were compared to Item #22 in order to complete the analysis. Item #22 was chosen as the control question because it differed from the rest of the items in that other items in the subscale make reference to an older adult who is less familiar while item #22 specifies that the older adult is a “family member of yours.” Results demonstrated that the use of Elderspeak would be more appropriate with those who were a member of the family compared to familiar people who were not family members or those one has never been met before. Sphericity was violated within this analysis. Therefore, degrees of freedom were corrected using the Greenhouse-Geisser estimates of sphericity ( $\epsilon=.66$ ). Please see Table 6 for results of the comparisons between items in the subscale. There was a difference in responding between the two samples, with the college-aged participants having significantly higher ratings of appropriateness within this subscale,  $F(1,127)=11.12, p<.01$ . Please refer to Appendix E for the means of each item for both the college-aged and older adult sample.

Table 6

*Results of Relational Subscales*

Relational	F Value	Significance
Q22-Q23	5.72	.018*
Q22-Q24	19.31	.000**

\*\* Statistically significant ( $p<.01$ )

\* Statistically significant ( $p<.05$ )

Q = “question”

### **Qualitative Analysis**

The last part of the questionnaire was comprised of four open-ended questions intended to allow participants to elaborate on areas or variables previous sections omitted. A visual analysis of responses by participants revealed a number of recurring themes for each of the questions. For item 34, which asks if there are other situations where this kind of language is more, or less, appropriate, the three most recurring responses were no (n=17), that this kind of language is more appropriate if you know the person (n=12), and may be more appropriate if the individual is hearing impaired (n=11). For item 35, which asks if there are situations where one has observed this type of communication style, the three most often recurring responses were in a nursing facility (n=34), in a hospital (n=12), and in a store (n=11). For item 36, which asks if one can recall a situation in which they used this type of communication, the three most recurring responses were with a no (n=33), with a relative (n=15), and working in a nursing facility (n=7). For item 37, which asks if one perceives any benefits or problems with this style of communication, the three most often recurring responses were it is degrading (n=25), no (n=16), and it may increase understanding (n=13). A comprehensive list of themes can be found in Appendix C.

Further qualitative analysis looked at differences between the two age groups. It was found that the older adult sample viewed Elderspeak as more inappropriate in all situations, unless the individual had an obvious hearing impairment. “Degrading, disrespectful, and demeaning” were common adjectives used by this group to describe this type of speech modification. In terms of the college student sample a more neutral stance was taken on their views of Elderspeak’s negative consequences and appropriateness. They also found it more acceptable when used with family members and in particular situations (e.g., if the person is in a nursing home or appears confused/disoriented).



## Chapter IV

### Discussion

#### Summary

As stated previously by the year 2050, the United States will be comprised of 87 million people over the age of 65 and 21 million people over the age of 85 (Williams & Warren, 2009). The main goal of this study was to understand under what circumstances college students and older adults perceive Elderspeak to be acceptable or unacceptable and to compare the results between these two specific populations. This study attempted to provide additional empirical support for the Communication Predicament of Aging Model, and in particular to the validity of the old age cues specified in this model. Ryan et al. (1995), explain that Elderspeak may be instigated by old-age cues including physical characteristics of the individual (e.g., gray hair, wrinkles, clothing), use of mobility aids (e.g., wheelchairs), relationship (e.g., grandmother), and the location of the encounter (e.g., long-term care facility, doctor's office).

Many of the findings of this study were consistent with this model, which lends additional support to its credibility and utility. For example, it was found that those with noticeable physical impairments, those who exhibit physical old age cues (i.e., gray hair and wrinkles), and older adults who have cognitive deficits were rated as more appropriate recipients of Elderspeak. Elderspeak was also rated as more appropriate when addressing a family member, when encountering an older adult in the context of a nursing home, or if assisting an older adult. In addition, women were rated as more appropriate recipients of Elderspeak. This is consistent with the findings of an article done by Nussbaum, Pitts, Huber, Raup-Krieger, and Ohs (2005) in which it was found that women were twice as likely as men to be recipients of this type of

speech. In addition, in a study conducted by Lombardi (2011) it was found that the emotional state of the older person affects the use of Elderspeak. This was consistent with the findings of the present study. Put together, these findings indicate that Elderspeak is a behavior that is sensitive to particular environmental cues.

In addition, a number of other variables not accounted for in the Communication Predicament of Aging Model were tested in order to determine if these variables might contribute to the use of Elderspeak. For example, there was no significant difference in ratings of appropriateness of Elderspeak in regards to the ethnic background of the older adult. Therefore, the ethnic background of an older adult does not appear to be an important factor in determining whether Elderspeak is appropriate or not. In addition, there was no significant effect in regards to situations in which people are present versus being alone with the older adult, indicating that the presence of other people does not alter the perceived appropriateness of Elderspeak. Occupational status was also not significant, indicating that the occupational status of an older adult does not affect the ratings of Elderspeak appropriateness. Lastly, financial status was not significant. This indicates that the ratings of appropriateness do not differ in regards to whether the individual is poor versus wealthy.

One unique aspect of this study is that it included a sample of younger and older adults. This allowed the researcher to compare how perceptions of the appropriateness of Elderspeak differ across generations. This analysis produced findings that had not been demonstrated in previous research, namely that there was a consistent difference in ratings of appropriateness between younger adult and older adult samples. There was a significant difference in responding between the two samples, with the college-aged participants having considerably higher ratings of appropriateness within each of the subscales.

The examination of the qualitative responses by participants appears to demonstrate that some old age cues and contextual characteristics dictate the level of appropriateness for the use of Elderspeak. Many of these responses were also consistent with the Communication Predicament of Aging Model and other literature. Participants stated in various ways that the appropriateness depends on the individual (e.g., relationship, presence of impairments) and the situation in which it occurs (e.g., hospital, nursing facility). A total of 33 people reported that they have never used Elderspeak, however 57 people reported observing its use. This indicates that Elderspeak, under certain situations and with certain individuals, may be considered more or less appropriate. Another relevant point gained from this section of the questionnaire that is consistent with previous findings was that a large number of respondents (n=25) deemed this type of speech as degrading or disrespectful (Nussbaum et al., 2005).

### **Implications**

As stated previously, by 2050 the majority of the United States population will be over the age of 65. This means that many of the young adults today will be responsible for caring for this aging population or interacting with older adults in other contexts (at home, work). The current study has helped demonstrate what factors or cues may be more likely to evoke Elderspeak. The majority of older adults rated this type of speech as generally inappropriate. The implication of this is that individuals who do interact with older adults should attempt to avoid using this type of speech and be aware of the factors and cues that may generally elicit this type of speech modification.

Another implication of this is that the factors and cues that tend to evoke Elderspeak may provide more information for the education and training of those who will be caring for and interacting with this unique and vulnerable population of individuals. Being aware of these

common cues may lead to reductions in the use of Elderspeak. In a study conducted by Williams, Kemper, and Hummert (2003) it was found that educating nursing home staff about Elderspeak and its potential negative consequences on older adults could reduce the use within nursing homes. As a result quality of life was improved. Similar training may need to become more widespread in the training of healthcare workers as well as in training of employees in a variety of other workplace settings where older adults work or where older adults are common consumers/customers.

### **Limitations and Future Directions**

A number of limitations should be considered when evaluating the results of the current study. First, there were several limitations associated with the sample obtained. For example, 80.9% of the respondents were women and 19.1% were men. A more equal gender distribution would have been preferred and could have produced different results. For example, it is possible that men may have stronger negative reactions to Elderspeak, which may not be fully represented in this study due to the relatively small number of men that participated.

In addition, 92.4% of respondents were Caucasian and 6.1% Non-Caucasian. Greater ethnic and cultural diversity in the sample would have provided more opportunity for analyzing cultural differences in the perceptions of the appropriateness of Elderspeak. Future studies should focus on attempting to obtain a more representative sample in terms of gender and ethnic/cultural background. Further analyses may be conducted comparing responses of men and women independently and exploring differences between different ethnic backgrounds. In addition, collecting data from a more diverse sample would provide a more comprehensive and accurate view of Elderspeak's use as well as the perceived appropriateness of Elderspeak.

In regards to the data collection process, a number of issues occurred that should be discussed. In order to collect the maximum amount of data possible, participants from the older adult population were given the option to take their survey home and return it later. Approximately nine individuals took advantage of this opportunity and eight of those individuals returned surveys. However, this subsample of individuals may have had questions about the survey during responding and did not have access to a researcher. Therefore, their responses to the questionnaire may have been different in some systematic way from those who completed the survey with the researcher present. Another limitation of the data collection process was that the college student sample participated online, whereas the older adult sample participated in person. It is unclear how the mode of administration of the questionnaire may have affected the obtained results. A data collection process that is the uniform for both groups would have been preferable and should be taken into consideration for future studies.

A final limitation that should be considered is the absence of psychometric support for the survey. Due to being rationally derived, the questions were not empirically or statistically derived such as through the use of factor analysis. Analyses utilizing the subscales should take this into consideration. Finally, future research should consider using a video recording or audio recording as part of the instructions in the questionnaire in order to further illustrate the different characteristics of Elderspeak (e.g., voice tone, pitch) in order to provide participants with a more accurate picture of this type of speech. Lastly, this research does provide direction for future empirical studies in regards to the assumption that this type of speech has a soothing or calming effect on elderly individual. There is research lacking as to whether this assumption is valid or invalid. A naturalistic study exploring this hypothesis would provide an answer to this question, while providing more evidence about Elderspeak's negative consequences or benefits.

## References

- Balsis, S., & Carpenter, B. D. (2005). Evaluations of elderspeak in a caregiving context. *Clinical Gerontologist, 29*(1), 79-96.
- Caporeal, L.R. (1981). The paralinguistic of caregiving: baby talk to the institutionalized aged—the field study. *Journal of Personality and Social Psychology, 40*, 876-884.
- Herman, R. E., & Williams, K. N. (2009). Elderspeak's influence on resistiveness to care: Focus on behavioral events. *American Journal of Alzheimer's Disease and Other Dementias, 24*, 417-423.
- Kemper, S., Finter-Urczyk, A., Ferrell, P., Harden, T., & Billington, C. (1998). Using elderspeak with older adults. *Discourse Processes, 25*(1), 55-73.
- Kemper, S., Othick, M., Warren, J., Gubarchuk, J. (1996). Facilitating older adults' performance on a referential communication task through speech accommodations. *Neuropsychology, Development, and Cognition, 3*, 37-55.
- La Tourette, T. R., & Meeks, S. (2000). Perceptions of patronizing speech by older women in nursing homes and in the community: Impact of cognitive ability and place of residence. *Journal of language and social psychology, 19*, 463-473.
- Lombardi, N.J. (2011). *A Functional Analysis of Elderspeak Use by Certified Nursing Assistants In Caregiving Situations*. (Unpublished master's thesis). Minnesota State University, Mankato, MN.
- Nussbaum, J. F., Pitts, M.J., Huber, F.N., Raup-Krieger, J. L., & Ohs, J.E. (2005). Ageism and Ageist Language Across the Life Span: Intimate Relationships and Non-intimate Interactions. *Journal of Social Issues, 61*, 287-305.
- Ryan, E. B., Giles, H., Bartolucci, G., & Henwood, K. (1986). Psycholinguistic and social

psychological components of communication by and with the elderly. *Language & Communication*, 6(1-2), 1-24.

Ryan, E. B., Hummert, M. L., & Boich, L. H. (1995). Communication predicament of aging: Patronizing behavior toward older adults. *Journal of Language and Social Psychology*, 144-166.

U.S. Census Bureau. (2005). Population Profile of the United States: Dynamic Version.  
Retrieved from

<http://www.census.gov/population/www/pop-profile/files/dynamic/AgeSex.pdf>

Williams, K., Kemper, S., & Hummert, M.L. (2003). Improving Nursing Home Communication: An Intervention to Reduce Elderspeak. *The Gerontologist*, 43, 242-247.

Williams, K. N., & Warren, C. A. B. (2009). Communication in assisted living. *Journal of Aging Studies*, 23, 24-36.

**Appendix A**

**Demographic Information:**

1. Gender:    M     F
2. Age:
3. Are you originally from the Midwestern United States: Yes        No     (if no, please specify region: _____)
4. Year in school:  Freshman (0-30 credits completed)  Sophomore (31-60 credits completed)  Junior (61-90 credits completed)  Senior (91+ credits completed)  Graduated/No longer attending
5. Ethnicity: _____
6. How many older adults (people over the age of 65) do you know well (e.g., family members, co-workers, or friends)? _____
7. Do you currently or have you worked in a long-term care facility or nursing home?  Yes        No



### Instructions

The purpose of this survey is to get your opinions about a type of speech/language that is sometimes used when younger people talk to older adults.

This type of speech/language of interest includes characteristics such as:

- Using shorter sentences
- Using simplified vocabulary (e.g., using the word *potty* instead of *bathroom*)
- Using personal terms of endearment (e.g., calling someone *sweetie*, *darling*, *honey* or *dear*)
- Statements using an exclusive “we” (e.g., “how are we doing today?”)
- Exaggerated intonation (e.g., talking with an excited tone as if talking to a child)
- Elevated pitch/volume (e.g., talking more loudly than is usual for a typical conversation)
- Repetition of words/phrases (e.g., repeatedly asking if someone is hungry)
- A slowed rate of delivery (e.g., talking more slowly than usual)

Below is an example of this type of speech/language:

-----  
Mrs. W., a new resident in a nursing home, is walking towards another resident’s room and is about to enter. Her caregiver observes her from the nursing station.

*Caregiver:* Where do you think you’re going? That’s not your room, you silly girl.

[Mrs W. continues to enter the room]

*Caregiver:* Well goodness, honey, you really are lost, aren’t you? We can’t have that now, can we? Give me your hand and we’ll find your room. Come on, sweetie.  
-----

We have found from various discussions that this is a type of speech that is used in a number of situations. When asked if people believe it is appropriate to talk to older individuals in this way, people typically say, “it depends on the situation.” This is what we want to know from you – if there are circumstances when this type of speech is more/less acceptable or appropriate.

For each of the situations listed below, please indicate how appropriate you believe it would be for an individual to use the kind of speech described above with an older person. Use the rating scale below to determine the level of appropriateness for each item. For example, item #1 asks how appropriate you think it would be for someone to use this type of speech/language with an older adult who is female.

	1 Not at all Appropriate	2 Somewhat appropriate	3 Appropriate	4 Very appropriate
1. If the older adult is female	1	2	3	4
2. If the older adult is male	1	2	3	4
3. If the older adult was Caucasian	1	2	3	4
4. If the older adult was from another ethnic group (e.g., African American, Hispanic, Asian)	1	2	3	4
5. If the older adult had gray hair and wrinkles	1	2	3	4
6. If the older adult has a noticeable visual impairment	1	2	3	4
7. If the older adult has a hearing impairment	1	2	3	4
8. If the older adult uses a cane, walker, or wheelchair to get around	1	2	3	4
9. If the older adult is healthy (i.e., has no visual or hearing problems, can get around without assistance)	1	2	3	4
10. If the older adult you are interacting with appears disoriented, confused, or lost	1	2	3	4
11. If the older adult has a memory disorder such as Alzheimer's disease	1	2	3	4
12. If the older adult has full mental capacity (i.e., does not have memory problems)	1	2	3	4
13. If the older adult previously held what most people consider a prestigious job such as a physician, lawyer, teacher, etc...?	1	2	3	4
14. If the older adult held a "blue collar" job such as factory worker or farmer	1	2	3	4

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	1 Not at all Appropriate	2 Somewhat appropriate	3 Appropriate	4 Very appropriate
15. If the older adult was a veteran	1	2	3	4
16. If the older adult was poor (i.e., was financially disadvantaged)	1	2	3	4
17. If the older adult was wealthy	1	2	3	4
18. If the older adult you are interacting with appears angry or irritable	1	2	3	4
19. If the older adult you are interacting with appears sad or depressed	1	2	3	4
20. If the older adult you are interacting with appears calm/content (i.e., no emotion is being shown)	1	2	3	4
21. If the older adult you are interacting with appears happy	1	2	3	4
22. If the older adult was a family member of yours	1	2	3	4
23. If you knew the older adult, but they were not a family member (e.g., they were a family friend or a co-worker)	1	2	3	4
24. If it were the first time you were meeting the older adult	1	2	3	4
25. If you were assisting the older adult (e.g., helping them cross the street or giving them directions)	1	2	3	4
26. If you were in a hurry and an older adult was moving slowly (e.g., the older person was a cashier at a convenience store and you were the customer)	1	2	3	4
27. If you were interacting with the older adult and no one else was around	1	2	3	4
28. If there were other people around when you were interacting with the older adult	1	2	3	4
29. If you encountered the older adult in a nursing home	1	2	3	4
30. If you encountered the older adult in a checkout line in a grocery store	1	2	3	4
31. If you encountered the older adult in a senior citizens center	1	2	3	4

1 Not at all Appropriate	2 Somewhat appropriate	3 Appropriate	4 Very appropriate
--------------------------------	------------------------------	------------------	--------------------------

32. If you encountered the older adult in a hospital	1	2	3	4
33. If you encountered the older adult in a physician's waiting room	1	2	3	4

34. Are there other situations not mentioned on this survey where this type of communication style is more, or less, appropriate? (Please provide examples)

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35. Can you recall having ever observed someone use this type of communication style when speaking to an older adult? If so, describe the situation(s) where you observed this.

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36. Can you recall having ever used this type of communication style when speaking to an older adult? If so, describe the situation(s).

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37. Do you perceive any benefits or problems with this kind of communication style?

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## Appendix B

### **Gender Subscale:**

- If the older adult is female (Item 1)
- If the older adult is male (Item 2)

### **Ethnicity Subscale:**

- If the older adult was Caucasian (Item 3)
- If the older adult was from another ethnic group (e.g., African American, Hispanic, Asian) (Item 4)

### **Physical Impairment Subscale:**

- If the older adult had gray hair and wrinkles (Item 5)
- If the older adult has a noticeable visual impairment (Item 6)
- If the older adult has a hearing impairment (Item 7)
- If the older adult uses a cane, walker, or wheelchair to get around (Item 8)
- If the older adult is healthy (i.e., has no visual or hearing problems, can get around without assistance) (Item 9)

### **Cognitive Impairment Subscale:**

- If the older adult you are interacting with appears disoriented, confused, or lost (Item 10)
- If the older adult has a memory disorder such as Alzheimer's disease (Item 11)
- If the older adult has full mental capacity (i.e., does not have memory problems) (Item 12)

### **Job Subscale:**

- If the older adult previously held what most people consider a prestigious job such as physician, lawyer, teacher, etc...? (Item 13)
- If the older adult held a "blue collar" job such as factory worker or farmer (Item 14)
- If the older adult was a veteran (Item 15)

### **Financial Subscale:**

- If the older adult was poor (i.e., was financially disadvantaged) (Item 16)
- If the older adult was wealthy (Item 17)

### **Emotional Subscale:**

- If the older adult you are interacting with appears angry or irritable (Item 18)
- If the older adult you are interacting with appears sad or depressed (Item 19)
- If the older adult you are interacting with appears calm/content (i.e., no emotion is being shown) (Item 20)
- If the older adult you are interacting with appears happy (Item 21)

### **Relational Subscale:**

- If the older adult was a family member of yours (Item 22)
- If you knew the older adult, but they were not a family member (e.g., they were a family friend or a co-worker) (Item 23)
- If it were the first time you were meeting the older adult (Item 24)

**Situational Subscale:**

- If you were interacting with the older adult and no one else was around (Item 27)
- If there were other people around when you were interacting with the older adult (Item 28)
- If you were assisting the older adult (e.g., helping them cross the street or giving them directions (Item 25)
- If you were in a hurry and an older adult was moving slowly (e.g., the older person was a cashier at the convenience store and you were the customer) (Item 26)
- If you encountered the older adult in a nursing home (Item 29)
- If you encountered the older adult in a checkout line in a grocery store (Item 30)
- If you encountered the older adult in a senior citizens center (Item 31)
- If you encountered the older adult in a hospital (Item 32)
- If you encountered the older adult in a physician's waiting room (Item 33)

## Appendix C

### **Item 34: (5 themes)**

Question: “Are there other situations not mentioned on this survey where this type of communication style is more, or less, appropriate? (Please provide examples).”

- No=17 responses (37%)
- Impaired, such as hearing or memory=11 responses (24.4%)
- When you know the person=12 responses (27%)
- Never appropriate=5 responses (11.1%)

### **Item 35: (6 themes)**

Question: “Can you recall having ever observed someone use this type of communication style when speaking to an older adult? If so, describe the situation(s) where you observed this.”

- Nursing facility=34 responses (44.2%)
- Stores=11 responses (14.3%)
- With children= 4 responses (5.2%)
- Hospital=12 responses (16%)
- Restaurants=4 responses (5.2%)
- With pets=2 responses (2.6%)
- No=10 responses (13%)

### **Item 36: (7 themes)**

Question: “Can you recall having ever used this type of communication style when speaking to an older adult? If so, describe the situation(s).”

- Relative=15 responses (23.1%)
- Hard of hearing=3 responses (5%)
- Working in nursing facility=7 responses (11%)
- Appear confused=5 responses (8%)
- With permission=2 responses (3.1%)
- No=33 responses (51%)

### **Item 37: (5 themes)**

Question: “Do you perceive any benefits or problems with this kind of communication style?”

- No=16 responses (23%)
- Degrading=25 responses (36%)
- Disrespectful=12 responses (17.1%)
- Easier to understand=13 responses (19%)
- Calming=4 responses (6%)

## Appendix D

### Informed Consent for Participation in the Research Study

You are requested to participate in research that will be supervised by Principal Investigator, Dr. Jeffrey Buchanan, about college students' and adults' opinions about the appropriateness of a type of speech directed toward older adults.

#### **Purpose**

The current project is intended to examine the phenomenon of elderspeak from the perspective of college students and older adults. The main goal of this research is to understand under what circumstances college students and older adults perceive elderspeak to be acceptable or unacceptable and to compare the results between these two specific populations.

#### **Procedures**

You will first be asked complete a demographics questionnaire, which gathers demographic information such as age, gender, and ethnicity. The demographics questionnaire will be followed by a set of instructions for completing the second questionnaire that concerns elderspeak. After you have read the instructions, the questionnaire on elderspeak will be presented. You will be asked to rate how appropriate it would be to use elderspeak in a variety of different situations. It is anticipated that participation will take approximately 15 minutes.

#### **Risks and Benefits**

Risks in terms of emotional stress/discomfort, and undesirable social, economic, and financial status are considered to be 'less than minimal.' There are no direct benefits associated with participation in this study, however it is hoped that this research will help shed light onto why individuals use elderspeak and what factors are more or less likely to evoke elderspeak.

#### **Confidentiality**

The records of this study will be kept private. An alphanumeric code will be placed on all data collection forms collected during this study to further protect participant confidentiality. All information will be locked in a cabinet in University Square 113. All data collected during this study will be destroyed after three years.

#### **Voluntary nature of study**

Your decision whether or not to participate in this research will not affect your current or future relations with the VINE-Faith in Action, Summit Center, or Minnesota State University, Mankato. Even if you sign the consent form, you are free to withdrawal from the study at any time by contacting Dr. Jeffrey Buchanan at 507-389-5824.

#### **Questions**

I have been informed that if I have any questions, I am free to ask them. I understand that if I have any additional questions later, I may contact the office of the principal investigator, Jeffrey Buchanan, Ph.D. at (507) 389-5824 or the student investigator, Kasie Hummel at 605-321-4225 or if you have questions or concerns about the treatment of human subjects, please contact IRB Administrator and Dean of Graduate Studies, Dr. Barry Ries at (507) 389-2321.

#### **Closing Statement**

My signature below indicates that I have decided to participate in a research study and that I have read this form, understand it, and have received a copy of this consent form.

\_\_\_\_\_  
Signature of participant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Investigator

\_\_\_\_\_  
Date



**Appendix E***Item Means Per Sample*

<b>Subscale</b>	<b>Item</b>	<b>Older Adults</b>	<b>College Students</b>
Gender	Item 1	M=1.58	M=1.92
	Item 2	M=1.33	M=1.66
Ethnicity	Item 3	M=1.45	M=1.90
	Item 4	M=1.42	M=1.93
Physical Impairment	Item 5	M=1.54	M=1.89
	Item 6	M=1.58	M=1.94
	Item 7	M=1.93	M=2.16
	Item 8	M=1.61	M=1.94
	Item 9	M=1.42	M=1.67
Cognitive Impairment	Item 10	M=1.89	M=2.44
	Item 11	M=1.96	M=2.40
	Item 12	M=1.38	M=1.67
Job	Item 13	M=1.28	M=1.76
	Item 14	M=1.39	M=1.76
	Item 15	M=1.43	M=1.79
Financial	Item 16	M=1.52	M=1.86
	Item 17	M=1.49	M=1.79
Emotional	Item 18	M=1.41	M=1.87
	Item 19	M=1.67	M=2.04
	Item 20	M=1.54	M=1.80
	Item 21	M=1.54	M=1.91
Relational	Item 22	M=1.67	M=2.27
	Item 23	M=1.61	M=2.10
	Item 24	M=1.38	M=1.69
Situational	Item 25	M=1.59	M=1.98
	Item 26	M=1.41	M=1.59
	Item 27	M=1.50	M=1.75
	Item 28	M=1.44	M=1.80
	Item 29	M=1.57	M=2.02
	Item 30	M=1.48	M=1.62
	Item 31	M=1.46	M=1.84
	Item 32	M=1.43	M=1.83
	Item 33	M=1.41	M=1.65