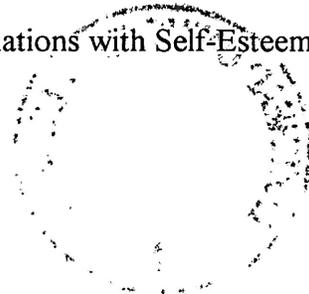


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Elderspeak: Seniors' Perceptions, Estimated Frequencies of Receipt from
Different Sources, and Associations with Self-Esteem



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Abstract

Community living seniors ($n = 131$) and nursing home residents ($n = 28$) were surveyed for their impressions and experiences of elderspeak and neutral talk from friends, same age family members, younger family members, familiar service workers, and unfamiliar service workers. They also estimated how often they received elderspeak from these people. Two orthogonal dimensions were found in perceptions of elderspeak: Warmth and Superiority. Age, general health, functional health, and beliefs about aging were associated with perceptions of Warmth and Superiority although the predictor variables were different for men and women. Significant interactions were found between perceptions of elderspeak and frequency of elderspeak in the prediction of self-esteem. These interactions supported past findings suggesting the potential harmful effects of receiving elderspeak on the self-esteem of seniors who have negative perceptions of elderspeak and who receive it frequently. However, older adults with positive perceptions of elderspeak and who received a lot of elderspeak reported higher levels of self-esteem. This finding is in accordance with person-environment fit theory.

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Elderspeak: Seniors' Perceptions, Estimated Frequencies of Receipt from
Different Sources, and Associations with Self-Esteem

Intergenerational encounters are often characterized by younger interlocutors linguistically converging toward elderly individuals in a fashion consistent with stereotypical expectations of performance, rather than toward the person's actual communicative ability (Ryan, Giles, Bartolucci & Henwood, 1986). The expectation that older individuals will communicate inadequately due to poor memory, reduced inductive reasoning, and processing speed (Ryan, See, Meneer & Travato, 1992) may result in the use of a patronizing speech register, specifically baby talk. This is often the result even when the elderly target has demonstrated a high level of communicative competence (Caporael, 1981; Giles & Powesland, 1975).

Used universally, baby talk is most often directed toward young children (Ferguson, 1964). It expresses warmth, facilitates language development, and maintains communication with the caregiver (Brown, 1977; Ferguson, 1977; Snow, 1972). The speech register is also frequently directed toward close friends, lovers, pets (Ferguson, 1964; 1977), and elderly people (Caporael, 1981). Its use with elderly people has been termed, "secondary baby talk" (Caporael, 1981) or simply "baby talk", since it has been found empirically to be similar to the speech used with young children (Snow, 1972). Most recently, this communication style has been termed "elderspeak" (Cohen & Faulkner, 1986). Elderspeak is

distinguished from normal adult speech by the presence of simplification strategies (e.g., slow speech, simple vocabulary), clarification strategies (e.g., careful articulation), a demeaning emotional tone (e.g., high pitch, reflecting superiority), and a low quality of talk (i.e., superficial conversations) (Ashburn & Gordon, 1981; Ryan, Giles, Bartolucci, & Henwood, 1986).

Studies examining the use of elderspeak have focused primarily on perceptions of its use by health professionals and care volunteers. While surveys of younger adults have generally shown their perceptions of such elderspeak to be negative, studies polling elderly individuals have yielded mixed results. The present study seeks to explore variables that predict elderly people's perceptions of receiving elderspeak, including individual differences in self-reported functional health, living situation (nursing home vs. community living), gender, age, and reported frequency of receiving elderspeak. In addition, the present study will investigate whether the identity of the speaker influences elderly people's perceptions of receiving elderspeak. Participants will be asked to rate the use of elderspeak by friends, younger and same age family members, as well as familiar and unfamiliar service workers. Finally, interactions between the frequency and perceptions of elderspeak in the prediction of self-esteem will be explored.

Reasons for Elderspeak – Speech Accommodation Theory

Speech accommodation theory (SAT) is a useful framework for investigating the social psychological causes and consequences of modifying speech addressed to elderly persons (Coupland, Coupland, Giles, & Henwood, 1988; Ryan et al., 1986). The theory explains and predicts sociolinguistic behaviour within interpersonal relationships in terms of convergent or divergent speech shifts toward interlocutors and particular goals of the interaction (Ryan et al., 1991; Giles & Powesland, 1975; Giles, 1977, 1980; Thakerar, Giles, & Cheshire, 1982). SAT suggests that people adjust their speech styles as a means of expressing values, attitudes and intentions toward others (Giles, 1977; 1980). Convergence of speech involves the reduction of linguistic dissimilarities between two people in terms of their dialects, pause lengths, and message content (Giles & Smith, 1979). Convergence is likely to increase the speaker's attractiveness (Bishop, 1979), predictability (Berger, 1979), and intelligibility (Triandis, 1960) in the eyes of the recipient. The greater a speaker's need to gain another's approval or attraction, the greater the magnitude of convergence (Thakerar et al., 1982). Factors affecting the intensity of such a need include the probability of future interactions with that person, social status relative to others, and past encounters with the person (Thakerar et al., 1982).

Elderspeak is one example of convergent communication. However, its use does not always yield positive impressions in others. As indicated by Ryan et

al. (1986), there may be times when a speaker's attempts to converge and accommodate toward a listener may be a form of over-accommodation that will result in a negative appraisal of the speaker by the listener. Convergence beyond an optimal magnitude or rate may be perceived as patronizing, condescending, threatening, or ingratiating (Giles & Smith 1979; Giles, 1980). A study by Giles and Smith (1979) asking British participants to rate audio-taped messages found that the recorded non-British speaker was rated most positively when he converged on the dimensions of content and speech rate together. Adding convergence on a pronunciation dimension, by having the speaker imitating a British accent, attenuated the favorableness of ratings. Participants perceived the speaker as expressing an uncomplimentary view of their speech (Giles & Smith, 1979).

Converging on all three linguistic features, as in the case of elderspeak, may thus exceed an optimal convergence magnitude. Giles and Smith (1979) also propose that convergence may be more effective when its use takes place slowly, by degrees, instead of all at once. An elderspeak style of convergence from friends or family members may be perceived as more warm than patronizing since its use may have emerged gradually.

The adoption of a convergent speech strategy is determined within SAT by four social psychological processes. The first, similarity-attraction theory, states that the more similar our attitudes and beliefs are to certain others, the more

likely it is that we will be attracted to them (Byrne, 1969). Speech convergence is one strategy for becoming more similar to another and the degree to which one converges may reflect their desire for social approval.

A second model, social exchange theory, recognizes the possible costs involved in interactions with others. The theory contends that, we attempt to assess, in advance, the rewards and costs of alternative modes of action (Homans, 1961). Therefore, we tend to behave in ways that maximize positive outcomes in order to incur greater reward than cost. The social exchange model can best explain dependency related over-accommodation to elderly adults (Ryan et al., 1986), which is manifested in the role relationship between caregiver and dependant care recipients. Dependency related over-accommodation involves controlling, directive, patronizing speech (Coupland et al., 1988; Lanceley, 1985) typically used in institutional settings. Such speech maintains a state of dependency in residents allowing for staff work efficiency at the expense of patient autonomy and happiness (Caporael, 1981; Rodin & Langer, 1980). Thus the staff uses convergent elderspeak as a means to expedite their work thereby reducing cost and increasing reward.

Being admitted to a long-term care institution, regardless of the reason, has been found to result in a labeling of the person as incompetent and dependent (Avorn & Langer, 1982). This state of dependency results in modifications of speech, such as elderspeak, which are based on stereotyped expectations about

dependent elderly people. This new mode of communication in turn reinforces the dependency of the elderly person (Ryan, Meredith, & Shantz, 1994) as their compliance evokes appreciation and better treatment from the nurses (Barton, Baltes, & Orzech, 1980). The elderly person is, from the viewpoint of the caregivers, a “good patient” since they are compliant, non-complaining, non-demanding, and passive (Taylor, 1979). The “good patient” is actually in a state of helplessness (Seligman, 1975; cited in Taylor, 1979). From the perspective of social exchange theory, the elderly person has lost their bargaining position in social relationships thus becoming dependent and indebted to others. For example, older people may lack material goods and socially valued roles (Lanceley, 1985).

From the perspectives of similarity-attraction theory and social exchange processes, elderspeak may be an attempt to communicate with an elderly person in a fashion that is believed will increase liking for the speaker and simultaneously reduce resistance to assistance. In the same vein, older adults may tolerate the convergence in order to ensure future caregiving and to reduce costs which may be incurred as a result of resistance or independent behaviour.

A third model, causal attribution theory, maintains that we evaluate others' behaviour in terms of the motives and intentions that we attribute as the cause of their actions (Heider, 1958; Jones & Davis, 1965; Kelly, 1973). We attempt to make sense of convergence or non-convergence by attributing different reasons to

the person's behaviour. These attributions influence how current and subsequent behaviours are interpreted (Giles, 1980). Therefore, our impressions of others who converge or do not converge in our interactions with them are influenced by our attributions of the intent behind the speech acts. It is reasonable that if elderspeak is attributed to intentions of nurturance, then the elderly target may be more accepting and appreciative. Such convergence from family members or a trusted nurse may signal continued caregiving (Caporael & Culbertson, 1986) and may be perceived as loving, while the same convergence from a stranger may be perceived as patronizing.

The fourth strategy, inter-group over-accommodation, describes the modification of speech based on the targets perceived membership in a social category (Tajfel & Turner, 1979). Elderly people often suffer a loss of status, personal contacts and income, and must live in a social climate which widely views aging with fearfulness and distaste (Rodin & Langer, 1980). While less than 5% of Americans over the age of 65 require custodial care (Brotman, 1974), the stereotype of the helpless and sick old person is still pervasive. Age is a salient characteristic, therefore social interactions with elderly people may be determined by expectations of the elderly rather than on the elderly persons actual ability to communicate (Ryan et al., 1986). The expectation that older individuals cannot communicate adequately due to poor memories, reduced inductive reasoning and processing speed (Ryan, See, Meneer, & Travato, 1992) may lead

interlocutors to misinterpret effective communication by older persons.

Consequently, elderly people may encounter patronizing behaviour such as elderspeak even when they have responded in a manner that is inconsistent with stereotypes (Giles & Powesland, 1975; Caporael, 1981). Research has found that older people in an interview situation are given easier questions regardless of competence level and are more likely to be evaluated negatively than younger people performing the same behaviour (Rodin & Langer, 1980). In addition, young and middle aged people, in contrast to elderly people, perceive the old as sickly, nonsocial, taking part in passive activities, and possessing more negative psychological characteristics than positive ones (Langer & Mulvey, unpublished data, cited in Rodin & Langer, 1980).

How Elderspeak is Perceived

Elderspeak is perceived both positively and negatively with individual differences as important moderators of perceptions (Caporael, 1981; O'Connor & Rigby, 1996; Ryan et al, 1991; Ryan, Hamilton, & See, 1994). While elderspeak is often an attempt to communicate affection, it may convey or be intended to imply the powerlessness of the target (Brown, 1977; Ferguson, 1977). In these instances, it communicates dependency, inferiority, and lower cognitive functioning (Lanceley, 1985; Taylor, 1979). Further, when it is perceived as

patronizing or non-affectionate it may have negative effects on the self-esteem of the recipients (O'Connor & Rigby, 1996).

Investigations of perceptions of elderspeak used by nurses and doctors in community and institutional settings have generally polled four groups. Young adults, middle aged adults, service providers, and seniors have been surveyed and findings on impressions of elderspeak have been mixed (Caporael, 1981; Edwards & Noller, 1993; Giles, Fox, & Smith, 1993; Kemper, 1994; Ryan, Hummert, & Boich, 1995; Ryan, Maclean, & Orange, 1994). Caporael (1981) recorded speech samples at a nursing home and coded three types of speech used by caregivers: speech by caregivers to other caregivers, which was assumed to be normal adult speech; speech to care receivers that was not baby talk; and baby talk (elderspeak). Of the 1,995 recorded utterances classified as sentences, 22% were elderspeak. The ratings of college undergraduate students indicated elderspeak to be more positive than either non-baby-talk and normal adult speech. Caporael found that elderspeak was judged to be more comforting, less arousing, and less irritating than the other forms of speech and concluded that elderspeak was a speech register conveying affection.

Ryan, Hamilton and See (1994), investigating the perceptions of young (mean age = 20.3 years) and old (mean age = 69.5 years) respondents, found that there was no expectancy or greater acceptance for the use of elderspeak by nurses as compared to volunteers. Elderspeak is considered patronizing regardless of

whether it is used by an experienced health professional or a relative newcomer. Ryan et al. (1994) concluded that the talk afforded to younger adults is generally considered respectful even to frail elders. This was consistent with previous findings that caregivers using elderspeak are viewed as less competent, less educated and less respectful (Ryan et al., 1991; Ryan et al., 1995). When the target of patronizing speech is described as cognitively impaired and confused, perceptions of elderspeak shift in a manner which views the speaker as more nurturing and the target as being more satisfied with the interaction (Ryan, Orange, & MacLean, 1993). One study had participants, young and old, verbalize a set of instructions for navigating a route drawn on a map (Kemper, Ferrell, Harden, Finter-Urczyk, & Billington, 1998). They were given photographs and short biographical descriptions of listeners who were described either as healthy, active adults living independently or as older adults who were experiencing cognitive problems including memory lapses, disorientation, and failing to recognize family members. The fluency, prosody, grammatical complexity, semantic content, and discourse style of the instructions were compared. Instructions to impaired listeners took longer to convey, yielded shorter utterances, and contained more repetitions than instructions directed toward non-impaired listeners. Participants were also asked to rate the appropriateness of various speech accommodations, such as using long sentences, exaggerated intonation, and repetition, for the listeners. The results indicated that both young

and older adults rated the speech accommodations as appropriate for use with cognitively impaired older adults.

Surveys of older adults indicate that their perceptions of elderspeak are relatively less negative than those of younger people (Edwards & Noller, 1993). Further, elderly subjects are more likely to trust the speech style of an interlocutor as an indicator of the recipient's actual competence, alertness or wakefulness (Giles et al., 1993). Among older adults, ratings of elderspeak may be predicted by various demographic and individual differences. For instance, ratings of elderspeak by institutionalized adults are less negative than those of community living seniors (Ryan & Cole, 1990). The most positive ratings come from nursing home residents who are judged by staff to be of poor functional health (Caporael, Lukaszewski, & Culbertson, 1983). Caporael et al. (1983) studied the perceptions of elderly care-receivers and their caregivers of audio-taped vocal interactions. The recordings were of speech between caregivers and either their co-workers or elderly nursing home residents. The study investigated the relationship between perceptions of elderspeak and the functional ability of the aged judges and the expectations of elderly people held by the caregivers. For the elderly judges, lower functional ability scores, as measured by caregivers, were found to be associated with a greater liking for elderspeak as compared to other speech. For caregivers, those with low expectations of elderly people were more likely to predict that elderspeak would be liked by elderly people and would be more

effective in interactions with them. Therefore, elderly people who are judged by staff to be of poor functional health and who need a significant amount of attention in their day-to-day living respond positively to elderspeak.

Caporael et al. (1983) sampled only nursing home residents and did not provide information on gender differences. Using a sample of men, women and community and nursing home living seniors, O'Connor and Rigby (1996), found that functional health effects were restricted to female nursing home residents negative perceptions of elderspeak. While the use of staff ratings in the measurement of functional ability is objectively valid, it fails to address the senior's experience of his or her own functional state, which may be an important influence on perceptions of elderspeak (O'Connor & Rigby, 1996).

Senior's attitudinal differences may also influence their perceptions of elderspeak. Older adults may have generalized expectancies and stereotypes about themselves and aging (Hummert, 1994) with which their behaviour may become consistent (Feezel & Hawkins, 1988). For instance, forgetting or the committal of another small error may be inappropriately attributed to aging. The simple increase in anxiety over aging and the belief that one will experience cognitive decline, such as memory loss, in old age, may be the actual cause of forgetfulness. Older adults who maintain positive attitudes about themselves and aging may be most likely to view elderspeak as patronizing and dislike it, while

those who have negative attitudes about themselves and aging may be more likely to appreciate or tolerate elderspeak.

Perceptions of elderspeak may be influenced by the frequency at which it is encountered. O'Connor and Rigby (1996) found that seniors who reported receiving the most elderspeak were also those who rated it most positively. Ryan et al. (1995) suggested that elderspeak is more common in nursing homes due to a predominance of negative age cues and described it as dependency-supportive behaviour. However, O'Connor and Rigby (1996) reported no difference in the frequency of elderspeak between community and institutional living seniors, although the statistical power of this study to detect difference was low. More sensitive and accurate measures of elderspeak frequency could better reveal who the targets of such speech are and how its receipt interacts with perceptions of elderspeak.

Perceptions of elderspeak may also be affected by the identity of the speaker. Studies have asked both young and old participants about their perceptions of elderspeak when it is produced by caregivers (Caporael, 1981; Caporael et al., 1983; Edwards & Noller, 1993; Ryan et al., 1991; Ryan, Meredith, & Shantz, 1994; Ryan, Hamilton, & See, 1994). However, these studies have not accounted for the multiple accommodative interactions a senior might encounter, particularly amongst those who live in the community. Investigating a broader range of interactions may reveal differential ratings of

elderspeak dependent upon who is doing the speaking. For instance, elderspeak from a friend or relative may be deemed warm, yet the same person may feel that elderspeak from an unfamiliar person is patronizing.

The Relationship Between Elderspeak and Self-Esteem

The apparent loss of value to society and the lack of respect from younger people can perpetuate negative and exaggerated social stereotypes of the elderly. One result of the societal stereotypes is a qualitative change in the communication experienced by older adults (Coleman & DePaulo, 1991). In addition to reducing opportunities for talk and social interaction (Ryan et al., 1986; Williams & Giles, 1991), negative labeling and stigmatization of elderly people has been found to contribute to behaviours by elderly people that confirm prevalent stereotypes, lower self esteem, and reduce feelings of control (Rodin & Langer, 1980; Snyder, Tanke, & Berscheid, 1977). These costs are unfortunate since the quality of communication that older adults experience is an important precursor to psychological and physical health (Caporael & Culbertson, 1986).

Elderspeak from younger people may convey a lack of respect to older adults which could result in lowered self-esteem and communication satisfaction (Caporael, 1983; Coupland et al., 1991; Ryan et al., 1991; Ryan et al., 1986). This inference that elderspeak is bad would predict self-esteem to be highest among seniors who receive it less frequently and that perceptions of elderspeak

should be less strongly associated with self-esteem among these individuals because elderspeak is less relevant to their lives. Person-environment congruence models posit that psychological adjustment is a function of the degree of fit between aspects of the environment and the individual's personal characteristics (Carp, 1987; O'Connor & Vallerand, 1994; Parmelee & Lawton, 1990). In contrast to the elderspeak-is-bad view, person-environment theory would predict that seniors who believe that elderspeak signifies positive attitudes and feelings toward recipients and who also frequently receive elderspeak should experience more congruence in their social environments, therefore reporting higher self-esteem than seniors who have positive perceptions of elderspeak but who rarely receive it.

In summary, both person-environment congruence models and the elderspeak-is-bad view predict an interaction between perceptions of elderspeak and frequency of receipt. Both predict that among people who frequently receive elderspeak, self-esteem will be lower among those who have negative perceptions. However, the theories conflict regarding the reactions of seniors who rarely receive elderspeak. Person-environment theory predicts a noticeable slope in the regression of self-esteem on perceptions of elderspeak, in contrast to the flat regression line predicted by the elderspeak-is-bad view (O'Connor & Rigby, 1996).

There has to date been only one study that directly examined the relationship between the receipt of elderspeak and self-esteem. O'Connor and Rigby (1996) postulated that perceptions of elderspeak and frequency of receiving elderspeak should interact in the prediction of self-esteem. Older people who have negative perceptions of elderspeak and who frequently receive elderspeak should have lower self-esteem than older people who have positive perceptions and frequently receive elderspeak. The predictions for people who rarely receive elderspeak were theoretically less straightforward.

O'Connor and Rigby (1996) surveyed older adults living in both community and nursing home environments. Participants reported both their perceptions of and the frequency at which they received elderspeak. They also completed a measure of self-esteem. Analysis of perceptions uncovered two main factors in perceptions of elderspeak: a warmth factor and a superiority factor. Interactions were found between the perceptions of elderspeak and frequency of receiving elderspeak in the prediction of self-esteem. The effects were slightly different for women and men, but all were consistent with person-environment theory. The self-esteem effects for women occurred on the warmth dimension. Self-esteem was lowest for women who frequently received elderspeak and who thought that it was not very warm, supporting the elderspeak-is-bad view. However, women who rarely received elderspeak and perceived it to be warm had lower self-esteem than did women who perceived elderspeak to be not very warm

and who rarely received it. O'Connor and Rigby (1996) suggest that elderspeak may contribute to self-esteem of women who have positive perceptions of elderspeak since these women may be experiencing a more congruent social environment.

For men, the self-esteem effects occurred on the superiority dimension and were consistent with person-environment fit theory. Men with high superiority perceptions of elderspeak and who received it frequently had lower self-esteem than did men who received it frequently but perceived elderspeak to be less superior. Men who rarely received elderspeak and who had positive perceptions of it reported lower self-esteem than did men who rarely received it and had negative perceptions. The lowest levels of self-esteem were reported by men who had positive perceptions of elderspeak and received it infrequently. Conversely, men who had positive beliefs about elderspeak and received it frequently reported the highest self-esteem. O'Connor and Rigby (1996) conclude that self-esteem is best enhanced when one frequently receives behaviour that is positively perceived and rarely receives behaviour that is negatively perceived.

The Present Study

The present study assessed older adults perceptions of elderspeak. Participants rated elderspeak and neutral-talk scenarios that varied only in speech style. The elderspeak scenario was designed to contain the features of patronizing

speech described by Ryan et al. (1991) and the paralinguistic qualities of exaggerated intonation and pitch that were examined in Caporael's (1981; 1983) research. Participants imagined themselves in the scenarios and indicated how often they are treated as such by others. The scenarios were rated on 10 trait adjectives in order to explore Wood and Ryan's (1991) hypothesis that two dimensions, status and solidarity, are important in speech to elders. Status is the ranking of persons in a society according to their possession of socially valued characteristics and solidarity refers to the degree of closeness or intimacy between persons.

While previous studies focused primarily on the perceptions of elderspeak from a limited range of speakers, usually caregivers (Caporael, 1981; Caporael et al., 1983; Edwards & Noller, 1993; Ryan et al., 1991; Ryan, Meredith, & Shantz, 1994; Ryan, Hamilton, & See, 1994), the present study examined how varying identities or speaker roles affected the impact of elderspeak on older adults. Five speaker-types were considered: friends, same age family members, younger family members, familiar service workers, and unfamiliar service workers. It was predicted that elderspeak from friends or relatives would be deemed more nurturing and warm and that elderspeak from strangers would be perceived as patronizing.

Reports by older adults about the frequency of receiving elderspeak by members of each speaker-type were measured. The few studies that have

assessed elderspeak frequency have yielded ambiguous results. Ryan and Cole (1990) suggested that elderspeak is more common in nursing homes. However, O'Connor and Rigby (1996) found no difference in the reported frequency of elderspeak between nursing home and community living seniors. It was hoped that the frequency measures of this study might provide some clarity regarding frequency. Consistent with person-environment congruence and the findings of O'Connor and Rigby (1996), it was expected that seniors who rate elderspeak the most positively will also report receiving it the most frequently.

The relationship between perceptions of elderspeak and both individual and demographic variables were also examined. Variables included gender, place of residence, age, self-reported health, beliefs about aging, and self-esteem. It was hypothesized that the ratings of institutionalized elderly would be more positive than those of community living seniors possibly because of "the adjustments required in the institutionalization process" (Ryan et al., 1991, p.447). Further, seniors who maintain positive attitudes about themselves and aging were expected to view elderspeak as patronizing while those with negative perceptions of aging would be more likely to perceive warmth in elderspeak. The self reported measure of functional health used by O'Connor and Rigby was also used. A prediction regarding functional health was difficult to make since the findings of O'Connor and Rigby (1996) were restricted to the negative perceptions of female nursing home residents.

The interaction between frequency of receiving elderspeak and perceptions of elderspeak were also assessed in its prediction of self-esteem according to each speaker-type. It was predicted, as found by O'Connor and Rigby (1996), that the interactions would be consistent with person-environment theory and that self-esteem would be highest when a participant with positive perceptions of elderspeak receives it frequently.

The findings regarding nursing home living seniors are tentative due to the small sample size. The findings did however indicate the need for future studies with a large nursing home sample.

Method

Participants and Procedure

Community sample. Participants ($n = 131$; 64 women and 67 men) were recruited via activity centers, personal contacts, and the internet. Thirty-nine of the participants completed the paper-based version while 92 completed the web version. The mean age was 69.3 years ($SD = 5.2$); 47 lived alone; 25 were widowed, 76 were married, and 30 were single. Education of participants varied; 2.3 % had completed grammar school, 38.2 % finished high school, 5.3 % attended a trade school, and 54.2 % had attended college or university. Hearing aids were worn by 18 people and the average time since retirement was 7.9 years

($SD = 6.9$). They were asked to participate in a study on communication styles and were, when necessary, provided with a stamped self-addressed envelope for return of the questionnaire. Participants responding on the internet were contacted using an email-chat program. Only people in towns across Canada and the United States and whose profiles indicated that they were over 65 years of age were contacted. They were invited to visit the web-based version of the questionnaire at <http://www.tbaytel.net/epierre/>. The web questionnaire was visited 1120 times in two months. All internet responses were anonymous, although participants were permitted to provide their email address if they wanted to receive the results. All paper-based respondents lived in Canada while 85% of web respondents were from the United States. The web and paper versions of the questionnaire provided identical instructions.

Nursing home residents. Other participants ($n = 28$; 19 women and 9 men) were recruited from 5 intermediate-care nursing homes. All the nursing home participants completed the paper-based version of the survey. The mean age was 83.3 years ($SD = 8.14$); 12 were widowed, 9 were married, and 7 were single. Education varied; 3.6 % completed only grammar school, 42.9 % finished high school, 3.6 % attended a trade school, and finally 50 % attended a college or a university.

Seventy-five other people (35 paper; 40 web) participated in the study, but their responses were not included in the analyses because of missing data, improper completion, or they were too young.

Elderspeak and Neutral-Talk Scenarios

The questionnaire provided the respondent with the following scenarios, which were designed to be relevant to older people (O'Connor & Rigby, 1996):

Imagine the following situation. You are attending some type of entertainment. During the intermission refreshments and desserts are available. They are easily accessible to all, including people in wheelchairs. Someone comes over to you and says one of two things:

“I noticed you’re still sitting down and I came over to see how you’re enjoying the show, and to ask whether you would like some dessert or a drink.”

Or,

“**I NOTICED** you’re still **SITTING DOWN** so I’ve brought a **JUICE** and a plate of **GOODIES** for you dear. **OKAY?** I hope you’re **COMFY** and **ENJOYING** the **SHOW.**”

Participants read and responded to questions that required them to contrast the two different types of speech used in the scenarios. The first scenario, which illustrates neutral talk, was presented first, a design found to be both more realistic and less confusing for respondents (O'Connor & Rigby, 1996). See appendix for a full version of the questionnaire.

Measures

Scenario ratings. Discrimination between the two scenarios was assessed by having the participants indicate their perceptions of the speech styles as being “normal” or “louder than normal”, “clearer than normal” and “more simplified than normal”. Asking participants to compare the elderspeak scenario to the neutral talk scenario assessed perceptions of elderspeak. Comparisons were made by rating (on a 5-point Likert scale) whether the elderspeak speech was “much less” or “much more” akin to various adjectives depending on the person doing the speaking (friends, same age family members, younger family members, familiar service workers, and unfamiliar service workers). The adjectives, derived from past research (Caporael, Lukaszewski, & Culbertson, 1983; O'Connor & Rigby, 1996; Ryan et al., 1986, 1991), were warm, irritating, condescending, patronizing, paternalistic, friendly, nurturing, affectionate, domineering, and respectful.

Frequency measures. Data were first collected on the frequency of receiving elderspeak. Participants reported the number of times in a week they received both neutral talk and elderspeak from each of the five different speaker-types. They simply circled the frequency on a scale from 0 to 50-plus times. The increments advanced in units of five and the measurement was called “received” frequency.

A second frequency measure, termed “presumed” frequency, simply asked participants to indicate how frequent or common they perceived elderspeak to be in contrast to neutral talk.

General health. A measure of each respondent’s health was made. Respondents were asked to rate their own health and their health compared to others their age. They were also asked to report how doctors rated their health.

Functional health. Participants completed an adaptation of Rosow and Breslau’s (1966) measure of functional health. The items assessed respondents’ perceptions of their ability to perform physical and social activities that could be impaired by health related problems. The measure is highly reliable and “quite useful for a general population survey” (Mangen & Peterson, 1982).

Beliefs about aging. Participants were asked to indicate their agreement (on a 5 point Likert scale) with two statements. “I believe that people become less able to do things for themselves as they get old” and “I believe that people

lose their independence as they get old”. This provided a measure of the participants’ stereotypes about their own in-group.

Self-esteem. Participants were asked to indicate their degree of agreement (on 5 point Likert scales) with five items from Rosenberg’s (1979) Self-esteem Scale (sample item: “I feel that I am a person of worth, at least on an equal plane with others”). This measure is unidimensional, internally consistent, has high test-retest reliability, and is correlated with self-esteem-related constructs (e.g., confidence, popularity, anxiety, and depression). Scores have been shown to be unrelated to age, marital status, gender, work experience, grade point average, scholastic aptitude, or birth order (Blascovich & Tomaka, 1991).

Demographics. Respondents were asked to specify their age, place of residence, marital status, education level, and gender. They were also asked how many years it had been since they retired, and whether they wore a hearing aid or not.

Results

Manipulation Checks

T-tests comparing impressions of elderspeak and neutral talk revealed that participants consistently detected differences between the two scenarios.

Participants rated elderspeak as louder than neutral talk, $t(158) = 158.00$, $p <$

.001, clearer than neutral talk, $t(158) = 48.59$, $p < .001$, and more simplified than neutral talk, $t(158) = 69.76$, $p < .001$.

Measures

Principal components analyses with varimax rotation were performed on the intercorrelations between the 10 traits describing the elderspeak scenario for each of the five speaker-types. Inspection of the factor loadings for each speaker-type (see Table 1) revealed two clear factors, which were labeled Warmth and Superiority. Across speaker-types, Warmth consistently accounted for a greater amount of variance than Superiority. The amount of variance accounted for by Warmth averaged 43% while Superiority averaged 30 percent. Three traits (domineering, irritating, and condescending) loaded on both factors.

Participants' ratings on the high-loading traits for each factor were averaged to create composite scores for both Warmth and Superiority for each of the five speaker-types. These composite scores were used in all subsequent analyses.

Analyses of Speaker-Type Differences

The next sections report the perceptions of elderspeak and the received and presumed frequency of elderspeak from each of the speaker-types.

Multivariate analyses of variance (MANOVA) were performed to determine

whether there were differential ratings of Warmth and Superiority between each of the five speaker-types. MANOVAs were also performed on the frequency measures to determine whether participants reported varying amounts of elderspeak from different speakers. A significant overall F value in these analyses indicated significant differences in elderspeak from the different speaker-types. In addition to an overall F value, pairwise comparison tests indicated significant differences between specific speaker-types (Nichols, 1993a; 1993b; Noursis, 1985). For example, for both men and women, perceptions of Warmth and Superiority in elderspeak from the speaker-type, friend, were significantly different than perceptions from unfamiliar service workers. When the overall F was not significant individual comparisons between speaker-types were discussed only to indicate a trend in responding.

Perceptions of elderspeak from each speaker-type. Two perception dimensions, Warmth and Superiority were derived from participants' ratings of elderspeak from different speakers. Participants rated elderspeak as "much less" or "much more" akin to various adjectives in contrast to neutral talk. Table 2 provides the means for all participants, as well as for each gender and place of residence separately on both the Warmth and Superiority dimensions. For each participant group, a plot was generated indicating the trend in perceptions of Warmth and Superiority for each speaker-type. These figures also provide the matrices indicating significant differences between specific speaker-types.

Analyses of the data for all participants indicated significant differences between speaker-types in perceptions of elderspeak on both the Warmth factor, $F(4,155) = 5.54, p < .001$, and the Superiority factor, $F(4,155) = 5.31, p < .001$. The most Warmth was perceived in elderspeak from friends ($M = 2.43$), and the least from unfamiliar service workers ($M = 2.11$). A complementary trend was found on the dimension of Superiority, with the least amount perceived in elderspeak from friends ($M = 3.63$) and the most from unfamiliar service workers ($M = 3.90$). The perception trend for all participants is plotted as Figure 1.

There were differential ratings of elderspeak by men for the different speaker-types on both the Warmth, $F(4,72) = 5.37, p = .001$, and Superiority, $F(4,72) = 3.78, p = .008$ dimensions. The ratings of women were not significant for Warmth, $F(4,79) = 1.60, p = .182$ or Superiority, $F(4,79) = 1.82, p = .134$. Men and women were similar in which speaker-types they perceived to convey the greatest Warmth and Superiority in elderspeak. Both perceived friends as conveying the greatest Warmth (men $M = 2.51$; women $M = 2.35$) and unfamiliar service workers (men $M = 2.12$; women $M = 2.10$), the least. A complementary trend was found on the dimension of Superiority. The least Superiority was perceived in elderspeak from friends (men $M = 3.53$; women $M = 3.72$), and the greatest in elderspeak from unfamiliar service workers (men $M = 3.86$; women $M = 3.93$) (see Table 2). Figures 2 and 3 plot the perception trends for men and women respectively.

Ratings of elderspeak for each speaker-type were also examined for participants grouped by their living environment: community living and nursing home. Community living participants reported significant overall differences in elderspeak from the various speaker-types on both Warmth, $F(4,127) = 5.18, p = .001$, and Superiority, $F(4,127) = 4.97, p = .001$. Analyses on the ratings of nursing home residents were not significant for either dimension. The ratings of community living seniors and nursing home living seniors were significantly different from each other on both Warmth, $F(1,157) = 17.63, p = .001$, and Superiority, $F(1,157) = 10.80, p = .001$. Nursing home residents reported significantly more Warmth and less Superiority in elderspeak than community living seniors. Both community and nursing home residents perceived friends as conveying the greatest Warmth (community $M = 2.30$; nursing home $M = 3.00$) and unfamiliar service workers as conveying the least Warmth (community $M = 1.99$; nursing home $M = 2.69$). The perceptions of community living seniors on the Superiority dimension were different than those of nursing home seniors. Community living seniors perceived elderspeaking friends as conveying the least Superiority ($M = 3.71$) and unfamiliar service workers the most ($M = 4.00$). By contrast, nursing home residents reported the greatest amount of Superiority in elderspeak from same age family members ($M = 3.50$) and the least from familiar service workers ($M = 3.22$). Figures 4 and 5 plot the perception trends for community and nursing home living seniors respectively.

all correlations. All of the variables were related to perceptions of Warmth and Superiority in elderspeak for at least one speaker-type.

All variables were entered into regressions to determine which would predict perceptions of elderspeak. This was done for all participants combined, as well as for men, women, and community living and nursing home residents.

Predictors of Warmth. Of all the variables, age was the most consistently related to perceptions of Warmth. This was true for all participants, and men and women separately (see Table 5). Age was significantly correlated to perceptions of Warmth in elderspeak for every speaker-type. The relationship was positive indicating that as the age of the respondent increased so did perceptions of Warmth. The correlations ranged from + .31 to + .48 and all were significant to a .01 level. For men, in addition to age, general health, functional health, and self-esteem were also significantly related to perceptions of Warmth. The correlations were negative and not significant for all speaker-types. Generally, men in better health and with higher self-esteem perceive less Warmth in elderspeak. For women, in addition to age, perceptions of Warmth were related to functional health, beliefs about aging, and self-esteem. The correlations were negative and not significant for all speaker-types. Women in better functional health, who have more positive beliefs about aging, and have high self-esteem perceive less Warmth in elderspeak. In summary, men's but not women's perceptions of

Warmth in elderspeak were related to general health. Women's perceptions, but not those of men, were related to beliefs about aging.

Correlations were computed between place of residence and the predictor variables. The perceptions of community living seniors were significantly related to each of the five variables, but most consistently for age and beliefs about aging. Perceptions of Warmth for nursing home residents were correlated to age, general health, and functional health, but only for some speaker-types.

Age, general health, functional health, beliefs about aging, and self-esteem were all entered into a regression equation to determine which were predictors of Warmth. Table 6 reports the significant predictors for each participant group. Age was the only significant predictor of Warmth in elderspeak for the entire sample and for men when the other variables were controlled. This was consistent across all five speaker-types. For women, perceptions of Warmth were most consistently predicted by beliefs about aging. This was true for all speaker-types except unfamiliar service workers. Warmth in elderspeak from unfamiliar service workers was significantly correlated with age, general health, and functional health. Age was also significantly correlated with women's perceptions of Warmth in elderspeak from younger family members and familiar service workers.

For community living participants, Warmth in elderspeak was significantly correlated only with their beliefs about aging and their age. Beliefs

about aging was significant for two of the five speaker-types, friends and same age family members and age was correlated with only one, younger family members when general health, functional health and self-esteem were being controlled. Perceptions of Warmth in the ratings of nursing home residents were only correlated with general health and only with elderspeak from same age family members.

Predictors of Superiority. Of all the variables, age was the most consistently correlated with perceptions of Superiority in elderspeak. This was true for all participants, and men and women separately (see Table 5). Age was significantly correlated with perceptions of Superiority for every speaker-type except younger family members for men. The relationship was negative indicating that as the age of the participant increased perceptions of superiority decreased. The significant correlations ranged from $-.23$ to $-.32$. For men, in addition to age, general health, functional health, and self-esteem were also significantly related with perceptions of Superiority. The correlations with these other variables were positive and not significant for all speaker-types. Essentially, men who are in good general and functional health and have higher self-esteem tend to perceive more Superiority in elderspeak. For women, in addition to age, perceptions of Superiority were significantly correlated with functional health and beliefs about aging. The relationships were in a positive direction and were only significant for a few speaker-types.

There were significant correlations between place of residence and the predictor variables of age, general health, functional health and beliefs about aging on the dimension of Superiority for community living seniors. Significant correlations were limited to only one speaker-type for each of the correlated variables. Superiority in the reports of nursing home residents was limited to a significant correlation between general health and elderspeak from same age family members.

When all the variables were entered into a regression equation, Superiority in the perceptions of all participants was predicted only by age. This was true for all speaker-types. Men's perceptions of Superiority were predicted by age for all speaker-types except younger family members. Health was also correlated with men's perceptions of superiority for the speaker-types of friend, same age family members, and unfamiliar service workers. Superiority in women's perceptions was significantly correlated with general health, beliefs about aging, and functional health and was only related to elderspeak from friends.

For community living participants, Superiority in elderspeak was significantly correlated only with age and only with elderspeak from unfamiliar service workers. The perceptions of nursing home residents were only correlated with general health and only with elderspeak from same age family members.

Predictors of Self-esteem

Moderated regression was used to test the hypothesized interaction between perceptions of elderspeak and frequency of receipt in the prediction of self-esteem (Aiken & West, 1991). Regressions were performed for both the received and presumed frequency measures. Perceptions and frequency of receipt were first entered into a regression equation followed by their cross product. A significant increase in the variance accounted for by the product term indicates a significant interaction. The partial correlations (with two-tailed significance levels) for the interaction terms are reported next because they are more simple and informative than ΔR^2 and F values.

The same basic regression technique used to test for interactions was used to test for curvilinear relationships. The difference is that there are only two predictors; a selected variable and a vector consisting of the squared variable scores. As in the case of moderated regression, a significant coefficient for the squared scores when the main effect is included in the equation indicates a curvilinear effect. Tests for curvilinear effects were only performed on interactions that were significant or had a partial correlation of at least .13. The cutoff of .13 was chosen since it denotes a sizable effect regardless of significance. The significant interactions and indication of curvilinear effects for regressions done with both received and presumed frequency are displayed in Tables 7 and 8 respectively. Curvilinear relationships were found between

independent variables and moderators and the dependant variable, self-esteem. The relationship means that any moderated relationship will be misleading and should not be interpreted (Aiken & West, 1991).

The nature of the interactions was interpreted by deriving regression equations for self-esteem on the perceptions of elderspeak for different levels of receipt (see Aiken & West, 1991). In this procedure, “the regression equation for a significant interaction is repeatedly solved for selected levels of the moderator variable, and the computed values are then plotted” (O’Connor & Rigby, 1996). The three levels of frequency of receipt chosen for this simple effects probing were the mean, one standard deviation above the mean, and one standard deviation below the mean. The results are depicted in Figures 10 and 11 for men and women respectively. The findings are consistent with person-environment fit theory. There were obvious slopes in the regression lines for both seniors who frequently received elderspeak and for seniors who rarely received elderspeak.

Overall, there were no consistent significant interactions for either Warmth or Superiority for any of the participant categories. There were significant findings for both men and women on some speaker-types. For men the interactions were significant and not curvilinear for elderspeak from friends on the presumed frequency measure on both the Warmth, partial $r = .28$, $p = .01$, and Superiority, partial $r = -.30$, $p = .01$, dimensions. Interactions for women were significant and not curvilinear for elderspeak from same age family members on

the received frequency measure on both the Warmth, partial $r = .37$, $p < .01$, and Superiority, partial $r = -.27$, $p = .03$, dimensions.

For both men and women the lowest levels of self-esteem were reported by those who perceived elderspeak to be not very warm and very superior and who either also received elderspeak frequently or presumed it to occur frequently. Self-esteem increased as perceptions of Warmth increased and perceptions of Superiority decreased. Self-esteem was highest among individuals who received it or presumed it to be infrequent and who perceived it to be Superior and not Warm.

Discussion

Studies have repeatedly surveyed seniors' perceptions of elderspeak from various caregivers (Caporael, 1981; Caporael et al., 1983; Edwards & Noller, 1993; Ryan et al., 1991; Ryan, Meredith, & Shantz, 1994; Ryan, Hamilton, & See, 1994). The present study examined how elderspeak is perceived from a range of speaker-types including: friends, family, and familiar and unfamiliar service workers, while accounting for various demographic and individual differences. Secondly, the study attempted to replicate a unique finding by O'Connor and Rigby (1996), which demonstrated an interaction between the frequency of receiving elderspeak and the perception of elderspeak with the self-esteem of the target.

Dimensions in Perceptions of Elderspeak

Participants indicated their perceptions of elderspeak according to 10 adjectives. Two clear factors emerged, which were labeled Warmth and Superiority. For each of the five speaker-types, Warmth accounted for more of the variance than Superiority. This difference probably occurred because most of the adjectives loaded on the larger factor. The emergence of these two factors confirms the importance of two fundamental dimensions of social life, status and solidarity, proposed by Wood and Ryan (1991) to be relevant to speech to older adults. The factors of Warmth and Superiority are also consistent with those found by O'Connor and Rigby (1996). They suggested that when decoding the relationship implications of elderspeak, older adults experience a warm – cold dimension impact (“The person is or isn’t being warm with me”) and a separate Superiority dimension impact (“The person is or isn’t acting superior with me”).

Frequency of Receipt of Elderspeak from each Speaker-Type

Respondents’ reports of whom they both received and presumed receiving the most and least elderspeak from were consistent. Participants reported the most received and presumed elderspeak from unfamiliar service workers and the least from friends. The fact that unfamiliar interlocutors were reported to use the most elderspeak is consistent with dependency related over-accommodation (Ryan et al., 1986), from the perspective of social exchange theory. The

contention is that before acting, we attempt to assess the rewards and costs of alternative modes of action (Homans, 1961). The intent is to behave in a fashion that will maximize positive outcomes. The use of elderspeak by unfamiliar service workers, often in nursing homes, may be directed at increasing efficiency of duties. When used for this purpose, elderspeak is likely to have controlling, directive, and patronizing qualities (Coupland et al., 1988; Lanceley, 1985), and is at the expense of recipients' autonomy and happiness (Caporael, 1981; Rodin & Langer, 1980). This also fits with the concept of causal attribution theory stated above. If the use of elderspeak by unfamiliar service workers has patronizing qualities and a negative intent (expediency for the speaker) then elderspeak from such speakers should be rated as the least Warm and most Patronizing, and that is exactly what was found.

Inter-group over-accommodation, involves modification of speech based on the targets perceived membership in a social category (Tajfel et al., 1979). According to Tajfel et al. (1979), elderspeak may either be a strategy to differentiate oneself from a particular group or it may be a form of over-accommodation with the intention of evoking liking from the recipient. The high amount of received elderspeak from younger family members may be explained by Tajfel's theory. To the young, older people may represent an out-group to which they wish to differentiate from.

Community living seniors generally reported more received elderspeak than did nursing home residents. This difference was statistically significant for speech from service workers. This is in contrast to Ryan and Cole's (1990) finding that nursing home residents receive more elderspeak. In addition, O'Connor and Rigby (1996) found no frequency differences. The nursing home sample was small and any findings regarding this group should be regarded cautiously. The lack of a finding consistent with past research may be due to the small sample size rather than to any real difference. It is possible that nursing home participants in the present study actually received more elderspeak than they reported. If elderspeak is more common in nursing homes, then residents may receive it frequently and consequently regard it as normal communication rather than over-accommodation. An observational study may be the only way to get an accurate measure of elderspeak frequency in nursing homes.

Perceptions of Elderspeak from each Speaker-Type

As suspected, perceptions of elderspeak varied as a function of speaker-type. This was statistically true for all participants combined, men, and community living seniors. While overall F values were not significant for women, the pattern of perceptions was the same as that for men and community living seniors and all participants combined. The most Warmth and the least Superiority was perceived in elderspeak from friends and family members and the

least Warmth and most Superiority in elderspeak from service workers. This pattern of findings was consistent with the notion of Giles and Smith (1979) that convergence may be more effective when its use takes place slowly, by degrees, instead of all at once. It is reasonable to assume that elderspeak from friends and family may have emerged gradually thereby attenuating perceptions of Superiority and facilitating perceptions of Warmth. Thus, elderspeak from such people may be more often interpreted as conveying affection.

The findings of this study also indicated a difference in how elderspeak is perceived from people with whom the target is emotionally attached. Thus, elderspeak from those we love or with whom we are close may be interpreted as indicating affection as opposed to Superiority. Causal attribution theory would predict such a circumstance. The theory contends that our perceptions of others' behaviour are based upon our attributions of their motivation and intentions (Heider, 1958; Jones & Davis, 1965; Kelly, 1973). Elderspeak may be perceived as Warm if the use of the speech is attributed to intentions of nurturance or continued caregiving (Caporael, 1986). The same speech from strangers may be perceived as superior or patronizing. While this study did not ask people to rate their attachment to the various speaker-types it does seem intuitive, at least in the case of community living seniors, to assume that they are more attached to friends and family members than they are to service workers. Future studies could include a measure of attachment.

The perceptions of nursing home residents did not vary by speaker-type. They perceived as much Warmth and Superiority in elderspeak from friends and family as they did in elderspeak from service workers. Nursing home residents may feel as close to some familiar service workers as they do to family members. They may interact with the familiar service workers more frequently and therefore may attribute the use of elderspeak as a sign of affection from such people. In addition, nursing home residents were older and less likely to be married than community living participants. It is possible that a lack of living same-age family members or friends will reduce the possible range of interlocutors to service workers.

Predictors of Perceptions of Elderspeak

Consistent with previous findings (O'Connor & Rigby, 1996), age was the only significant predictor of perceptions of elderspeak for all participants. Older participants perceived greater Warmth and less Superiority in elderspeak than did younger respondents. For men, age was the only predictor of perceptions of Warmth while age and general health predicted men's perceptions of Superiority. Older men perceived greater Warmth and less Superiority in elderspeak than did younger men, and men with worse health perceived less Superiority than did healthier men. For women, older age, negative beliefs about aging, and poorer general health predicted greater perceptions of Warmth in elderspeak. Poor

general health, negative beliefs about aging, and a need for assistance with daily living predicted perceptions of lower Superiority but only for elderspeak from friends.

Older adults in poor general health may be more dependent on others for their care. Thus, they may be more likely to attribute the use of elderspeak to motives of affection or continued caregiving. Adults with negative beliefs about aging may accept or tolerate elderspeak. A belief that people become more dependent as they age may lead to the acceptance of communication that is patronizing and implies the powerlessness of the target.

In contrast to community living seniors, nursing home residents had beliefs about aging which were significantly more negative. They also perceived significantly more Warmth and less Superiority in elderspeak than community living seniors, supporting Ryan et al.'s (1995) suspicion and previous findings (O'Connor & Rigby, 1996) indicating that nursing home residents are more accepting of elderspeak. Only age, for unfamiliar service worker, and general health, for same age family member, was found to predict the Warmth perceptions of nursing home residents. Superiority was only predicted by general health and only for elderspeak from same age family members. The more positive perceptions of nursing home residents may be due to adjustments required in adapting to life in an institution (Ryan, et al., 1991). Living in a nursing home may foster a more dependent role in the senior (Barton, Baltes, Orzech, 1980).

Nursing staff may use such over-accommodation as a means to expedite their work since it evokes compliance from the target. This is consistent with findings that demonstrate that nursing home residents are behaviorally reinforced for compliance to directive and patronizing speech (Baton et al. 1980).

Self-Esteem

The significant interactions that were found were in accordance with person-environment fit theory (Carp, 1987; O'Connor & Vallerand, 1994; Parmelee & Lawton, 1990). People who received or presumed elderspeak to be frequent and thought that it was Superior and not Warm reported the lowest levels of self-esteem. This supported the concerns about the potentially harmful consequences of receiving elderspeak. However the findings for people who rarely received elderspeak or believed it to be uncommon and also perceived it to be Warm and not Superior were inconsistent with the baby-talk-is-bad view. These participants had lower self-esteem than did participants who perceived elderspeak to be not very Warm and who presumed it rare or reported receiving very little. Receiving elderspeak may contribute to self-esteem for those with positive perceptions of it because these people experience a more congruent social environment.

These findings are consistent with general models of person environment fit and with more specialized formulations, such as Carstensen's (1991)

selectivity theory of social activity in old age. In her view, the “costs” of social interaction increase with age, and seniors should be selective in their choices of interaction partners in order to maintain their identities and positive emotional states. Elderspeak may be a feature of interactions about which seniors should be selective. For those seniors with positive perceptions of elderspeak the costs of receiving it are minimal and may actually result in self-esteem gains.

Limitations and Recommendations

The failure to sample a larger number of nursing home residents was a limitation of the study. Much of the correlational data was not significant despite strong relationships.

A single scenario (in two versions) was used in this study. The scenario may not have been equally relevant to all participants. For example, nursing home living seniors may not encounter such a situation with unfamiliar people and community living seniors would likely not encounter such a situation with a familiar service worker.

The two versions of the scenario should have differed only in their patronizing qualities. They also differed in the nature of the behaviour of the speaker. The neutral talk scenario describes the speaker as only offering to help but the patronizing scenario describes the speaker as actually bringing some food

and a drink. The fact that the two scenarios differed in the behaviour they describe was potentially confounding.

The current design did not measure the relationship between a participant and each speaker-type. Participants should have been asked how close they were to the different speaker-types. The degree of attachment to speakers, rather than their identity, may best predict a target's perceptions of elderspeak. The use of specific speaker-types may be unnecessary. Participants could simply be asked to rate elderspeak from others who are close, not close, and completely unfamiliar. The speaker-type perception differences between community and nursing home living participants may disappear when simply degree of attachment is considered.

Many participants disregarded the received frequency measure simply leaving it blank. A simpler frequency measure should be developed for future studies. An estimate of elderspeak may be a difficult measure to estimate since people may really only recall communicative instances which are distinct. If a person likes elderspeak then an interaction involving elderspeak may not be recalled.

The use of the Internet in this study was unique. Participants completing the web-based version of the survey were more likely to complete it properly than were paper-based respondents. While the data collection procedures of our study

could have been more consistent, future studies on the topic may attempt to use the web for the entire data collection.

Conclusion

In conclusion, results revealed that older adults' perceptions of elderspeak fall on either a Warmth or a Superiority dimension. The use of elderspeak was more frequent and perceived as Superior when the speaker was unfamiliar to the target. Elderspeak was less frequent and perceived as conveying Warmth when the speaker was familiar to the target.

Significant interactions between perceptions of elderspeak and frequency of elderspeak in the prediction of self-esteem supported person-environment fit theory. The reception of elderspeak has potentially harmful effects on the self-esteem of seniors who have negative perceptions of elderspeak and receive it frequently. However, older adults with positive perceptions of elderspeak and who receive it frequently reported higher levels of self-esteem.

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Appendix

Questionnaire layout for both web and paper versions

Questionnaire

- To ensure anonymity, please do not sign your name on this questionnaire.
- There are no right or wrong answers to the questions. Please just give the most accurate, truthful response for you. It is most helpful to us if you **answer every question**, however if any of the questions are too personal, you do not have to respond. For each question your first impression is probably fine.
- **The questions are concerned with your feelings about behavior from five different kinds of people. We will define them now.**
 1. **Younger family members** - such as your children, grandchildren, nieces and nephews, etc.
 2. **Same age family members** - such as your spouse, siblings, or in-laws.
 3. **Familiar service workers** – doctors, nurses, physical therapists, clerks, tellers, clergy, hairstylists, waiters, and waitresses that you know.
 4. **Unfamiliar Service workers** - doctors, nurses, physical therapists, cashiers, clerks, tellers, clergy, hairstylists, waiters and waitresses that you do not know.
 5. **Friends** – people you are friends with.

Imagine the following situation. You are attending some type of entertainment. During the intermission refreshments and desserts are available. They are easily accessible to all, including people in wheelchairs. Someone comes over to you and says one of two things:

Scenario A: "I noticed you're still sitting down and I came over to see how you're enjoying the show, and to ask whether you would like some dessert or a drink."

Scenario B: "I **NOTICED** you're still **SITTING DOWN** so I've brought a **JUICE** and a plate of **GOODIES** for you dear. **OKAY?** I hope you're **COMFY** and **ENJOYING** the **SHOW**."

For the next questions, please circle how you feel about the scenarios.

In **Scenario A**, the person's speaking style is:

(1) louder than normal or normal

(2) clearer than normal or normal

(3) more simplified than normal or normal

In **Scenario B**, the person's speaking style is:

(1) louder than normal or normal

(2) clearer than normal or normal

(3) more simplified than normal or normal

Scenario A: "I noticed you're still sitting down and I came over to see how you're enjoying the show, and to ask whether you would like some dessert or a drink."

Scenario B: "I **NOTICED** you're still **SITTING DOWN** so I've brought a **JUICE** and a plate of **GOODIES** for you dear. **OKAY?** I hope you're **COMFY** and **ENJOYING** the **SHOW**."

For the following questions circle your answer for each Scenario.

In a week how often do you think **younger family members** speak to you in the way the person did in:

Scenario A - 0 1-5 6-10 11-15 16-20 21-25 26-30 31-35 36-40 41-45 46-50 50+

Scenario B - 0 1-5 6-10 11-15 16-20 21-25 26-30 31-35 36-40 41-45 46-50 50+

In a week how often do you think **same age family members** speak to you in the way the person did in:

Scenario A - 0 1-5 6-10 11-15 16-20 21-25 26-30 31-35 36-40 41-45 46-50 50+

Scenario B - 0 1-5 6-10 11-15 16-20 21-25 26-30 31-35 36-40 41-45 46-50 50+

In a week how often do you think **familiar service workers** speak to you in the way the person did in:

Scenario A - 0 1-5 6-10 11-15 16-20 21-25 26-30 31-35 36-40 41-45 46-50 50+

Scenario B - 0 1-5 6-10 11-15 16-20 21-25 26-30 31-35 36-40 41-45 46-50 50+

In a week how often do you think **unfamiliar service workers** speak to you in the way the person did in:

Scenario A - 0 1-5 6-10 11-15 16-20 21-25 26-30 31-35 36-40 41-45 46-50 50+

Scenario B - 0 1-5 6-10 11-15 16-20 21-25 26-30 31-35 36-40 41-45 46-50 50+

In a week how often do you think **friends** speak to you in the way the person did in:

Scenario A - 0 1-5 6-10 11-15 16-20 21-25 26-30 31-35 36-40 41-45 46-50 50+

Scenario B - 0 1-5 6-10 11-15 16-20 21-25 26-30 31-35 36-40 41-45 46-50 50+

Scenario A: "I noticed you're still sitting down and I came over to see how you're enjoying the show, and to ask whether you would like some dessert or a drink."

Scenario B: "I **NOTICED** you're still **SITTING DOWN** so I've brought a **JUICE** and a plate of **GOODIES** for you dear. **OKAY?** I hope you're **COMFY** and **ENJOYING** the **SHOW**."

Complete the sentences by circling the answer which best matches your feelings.

Example: When a younger family member is speaking I find Scenario B:

Much Less Less Equally More Much More → **SATISFYING** than Scenario A.

In the example the person circled Less. Therefore they mean that → If a younger family member is speaking I find Scenario B Less **SATISFYING** than Scenario A.

If a younger family member is speaking to me I would find Scenario B:

Much less	Less	Equally	More	Much more → WARM than Scenario A.
Much less	Less	Equally	More	Much more → IRRITATING than Scenario A.
Much less	Less	Equally	More	Much more → CONDESCENDING than Scenario A
Much less	Less	Equally	More	Much more → PATRONIZING than Scenario A.
Much less	Less	Equally	More	Much more → PATERNALISITIC than Scenario A
Much less	Less	Equally	More	Much more → ENJOYABLE than Scenario A.
Much less	Less	Equally	More	Much more → FRIENDLY than Scenario A.
Much less	Less	Equally	More	Much more → NURTURING than Scenario A.
Much less	Less	Equally	More	Much more → AFFECTIONATE than Scenario A.
Much less	Less	Equally	More	Much more → DOMINEERING than Scenario A.
Much less	Less	Equally	More	Much more → RESPECTFUL than Scenario A.
Much less	Less	Equally	More	Much more → FREQUENT/COMMON than Scenario A

If a same age family member is speaking to me I would find Scenario B:

Much less	Less	Equally	More	Much more → WARM than Scenario A.
Much less	Less	Equally	More	Much more → IRRITATING than Scenario A.
Much less	Less	Equally	More	Much more → CONDESCENDING than Scenario A
Much less	Less	Equally	More	Much more → PATRONIZING than Scenario A.
Much less	Less	Equally	More	Much more → PATERNALISITIC than Scenario A
Much less	Less	Equally	More	Much more → ENJOYABLE than Scenario A.
Much less	Less	Equally	More	Much more → FRIENDLY than Scenario A.
Much less	Less	Equally	More	Much more → NURTURING than Scenario A.
Much less	Less	Equally	More	Much more → AFFECTIONATE than Scenario A.
Much less	Less	Equally	More	Much more → DOMINEERING than Scenario A.
Much less	Less	Equally	More	Much more → RESPECTFUL than Scenario A.
Much less	Less	Equally	More	Much more → FREQUENT/COMMON than Scenario A

Scenario A: "I noticed you're still sitting down and I came over to see how you're enjoying the show, and to ask whether you would like some dessert or a drink."

Scenario B: "I **NOTICED** you're still **SITTING DOWN** so I've brought a **JUICE** and a plate of **GOODIES** for you dear. **OKAY?** I hope you're **COMFY** and **ENJOYING** the **SHOW**."

If a **familiar service worker** is speaking to me I would find **Scenario B**:

Much less	Less	Equally	More	Much more → WARM than Scenario A.
Much less	Less	Equally	More	Much more → IRRITATING than Scenario A.
Much less	Less	Equally	More	Much more → CONDESCENDING than Scenario A.
Much less	Less	Equally	More	Much more → PATRONIZING than Scenario A.
Much less	Less	Equally	More	Much more → PATERNALISITIC than Scenario A.
Much less	Less	Equally	More	Much more → ENJOYABLE than Scenario A.
Much less	Less	Equally	More	Much more → FRIENDLY than Scenario A.
Much less	Less	Equally	More	Much more → NURTURING than Scenario A.
Much less	Less	Equally	More	Much more → AFFECTIONATE than Scenario A.
Much less	Less	Equally	More	Much more → DOMINEERING than Scenario A.
Much less	Less	Equally	More	Much more → RESPECTFUL than Scenario A.
Much less	Less	Equally	More	Much more → FREQUENT/COMMON than Scenario A.

If an **unfamiliar service worker** is speaking to me I would find **Scenario B**:

Much less	Less	Equally	More	Much more → WARM than Scenario A.
Much less	Less	Equally	More	Much more → IRRITATING than Scenario A.
Much less	Less	Equally	More	Much more → CONDESCENDING than Scenario A.
Much less	Less	Equally	More	Much more → PATRONIZING than Scenario A.
Much less	Less	Equally	More	Much more → PATERNALISITIC than Scenario A.
Much less	Less	Equally	More	Much more → ENJOYABLE than Scenario A.
Much less	Less	Equally	More	Much more → FRIENDLY than Scenario A.
Much less	Less	Equally	More	Much more → NURTURING than Scenario A.
Much less	Less	Equally	More	Much more → AFFECTIONATE than Scenario A.
Much less	Less	Equally	More	Much more → DOMINEERING than Scenario A.
Much less	Less	Equally	More	Much more → RESPECTFUL than Scenario A.
Much less	Less	Equally	More	Much more → FREQUENT/COMMON than Scenario A.

Scenario A: "I noticed you're still sitting down and I came over to see how you're enjoying the show, and to ask whether you would like some dessert or a drink."

Scenario B: "I **NOTICED** you're still **SITTING DOWN** so I've brought a **JUICE** and a plate of **GOODIES** for you dear. **OKAY?** I hope you're **COMFY** and **ENJOYING** the **SHOW**."

If a friend is speaking to me I would find Scenario B:

Much less	Less	Equally	More	Much more → <u>WARM</u> than Scenario A.
Much less	Less	Equally	More	Much more → <u>IRRITATING</u> than Scenario A.
Much less	Less	Equally	More	Much more → <u>CONDESCENDING</u> than Scenario A.
Much less	Less	Equally	More	Much more → <u>PATRONIZING</u> than Scenario A.
Much less	Less	Equally	More	Much more → <u>PATERNALISTIC</u> than Scenario A.
Much less	Less	Equally	More	Much more → <u>ENJOYABLE</u> than Scenario A.
Much less	Less	Equally	More	Much more → <u>FRIENDLY</u> than Scenario A.
Much less	Less	Equally	More	Much more → <u>NURTURING</u> than Scenario A.
Much less	Less	Equally	More	Much more → <u>AFFECTIONATE</u> than Scenario A.
Much less	Less	Equally	More	Much more → <u>DOMINEERING</u> than Scenario A.
Much less	Less	Equally	More	Much more → <u>RESPECTFUL</u> than Scenario A.
Much less	Less	Equally	More	Much more → <u>FREQUENT/COMMON</u> than Scenario A.

The next questions are about you, and are in the form of statements with which you may agree or disagree. Please answer each question by circling how you feel from the list of words beside the question.

In most ways my life is close to my ideal.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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The conditions of my life are excellent.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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I am satisfied with my life.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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So far I've gotten the important things I want in life.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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If I could live my life over, I would change almost nothing.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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On the whole, I am satisfied with myself.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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I feel that I have a number of good qualities.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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Table 1
 Factor Loadings for Adjectives Describing the Elderspeak Scenario

Adjective	Friend		Same Age Family Member		Younger Family Member		Familiar Service Worker		Unfamiliar Service Worker	
	Factor 1 (46.6%)	Factor 2 (28.5%)	Factor 1 (40.7%)	Factor 2 (32.7%)	Factor 1 (40.2%)	Factor 2 (28.7%)	Factor 1 (45.5%)	Factor 2 (27.9%)	Factor 1 (39.8%)	Factor 2 (30.2%)
Warm	.86	-.21	.83	-.29	.73	-.19	.88	-.13	.81	-.26
Irritating	-.64	.56	-.62	.62	-.48	.65	-.69	.55	-.55	.62
Condescending	-.45	.74	-.31	.85	-.36	.77	-.42	.75	-.32	.81
Patronizing	-.31	.82	-.22	.83	-.20	.85	-.15	.83	-.10	.83
Paternalistic	00	.79	00	.84	00	.72	00	.80	00	.74
Friendly	.88	-.26	.82	-.3	.86	-.26	.86	-.26	.87	-.23
Nurturing	.78	-.16	.80	00	.83	-.11	.83	-.11	.80	-.12
Affectionate	.90	-.23	.88	-.21	.87	-.23	.88	00	.87	-.15
Domineering	-.60	.66	-.45	.66	-.50	.62	-.56	.63	-.41	.74
Respectful	.81	-.28	.74	-.34	.82	-.29	.77	-.31	.78	-.19

Table 2
Perceptions of Warmth and Superiority for Men and Women, and for Community and Nursing-Home Participants

Source	All Participants			Men			Women			Community-Living			Nursing-Home		
	Mean	SD		Mean	SD		Mean	SD		Mean	SD		Mean	SD	
	N=159			N=76			N=83			N=131			N=28		
Friend	2.43 _a	1.01		2.51 _a	1.02		2.35 _a	1.01		2.30 _a	.964*		3.00 _a	1.05	
Same Age Family Members	2.33 _{ab}	.952		2.40 _a	.926		2.26 _{ab}	.977		2.23 _{ab}	.926*		2.80 _a	.948	
Younger Family Members	2.27 _{bc}	1.03		2.33 _{ab}	.982		2.21 _{ab}	1.07		2.13 _{bc}	.941*		2.91 _a	1.18	
Familiar Service Workers	2.23 _c	.889		2.28 _b	.900		2.18 _b	.882		2.09 _c	.814*		2.84 _a	.980	
Unfamiliar Service Workers	2.11 _d	.901		2.12 _c	.926		2.10 _b	.884		1.99 _d	.835*		2.69 _a	.987	
Friend	3.63 _a	.915		3.53 _a	.956		3.72 _a	.879		3.71 _a	.859*		3.24 _a	1.08	
Same Age Family Members	3.76 _a	.919		3.72 _{bc}	.912		3.80 _{ab}	.929		3.82 _{ab}	.836		3.50 _a	1.22	
Younger Family Members	3.74 _{ab}	.973		3.71 _{abc}	.888		3.77 _{ab}	1.05		3.83 _{bc}	.839*.08		3.34 _a	1.39	
Familiar Service Workers	3.76 _b	.871		3.73 _b	.824		3.78 _{ab}	.916		3.87 _c	.728*		3.22 _a	1.23	
Unfamiliar Service Workers	3.90 _c	.881		3.86 _c	.949		3.93 _b	.818		4.00 _d	.792*		3.42 _a	1.11	

Note. Means with different subscripts within the respective sex and living-environment categories are significantly different at the .05 level. All means are based on a 1-5 rating scale. Lower means signify less Warmth or Superiority and higher means indicate greater Warmth or Superiority.

Table 3
 Frequency of Received and Presumed Elderspeak for Men, Women, and for Community and Nursing-Home Participants

Source	All Participants						Community Living		Nursing Home			
	Men		Women		Mean		SD		Mean		SD	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
	N=89		N=51		N=73		N=16					
Friend	-2.87 _{ab}	3.85	-2.55 _a	2.81	-3.10 _a	4.48	-2.74 _{ab}	3.75	-3.44 _{ab}	4.37		
Same Age Family Members	-3.15 _a	4.42	-2.95 _a	4.05	-3.29 _a	4.72	-3.03 _a	4.35	-3.69 _{ab}	4.84		
Younger Family Members	-1.98 _{cd}	3.50	-1.29 _{bc}	3.42*	-2.49 _{ab}	3.51	-2.01 _{bc}	3.20	-1.81 _a	4.76		
Familial Service Workers	-2.24 _{bd}	3.28	-1.74 _{ab}	2.37	-2.61 _a	3.81	-1.82 _c	2.87*	-4.13 _b	4.35		
Unfamiliar Service Workers	-1.24 _c	3.42	-0.71 _c	2.86	-1.63 _b	3.77	-0.72 _{cd}	3.22*	-3.56 _{ab}	3.46		
	N=159		N=76		N=83		N=131		N=28			
Friend	2.15 _a	1.05	2.29 _a	1.08	2.02 _a	1.01	2.15 _a	1.09	2.14 _a	0.848		
Same Age Family Members	2.23 _{ab}	1.16	2.20 _a	1.08	2.25 _{ab}	1.23	2.18 _a	1.13	2.46 _{ab}	1.26		
Younger Family Members	2.35 _{bc}	1.21	2.32 _a	1.16	2.39 _{bc}	1.26	2.29 _{ab}	1.21	2.64 _b	1.19		
Familial Service Workers	2.43 _c	1.19	2.33 _a	1.10	2.53 _c	1.27	2.42 _b	1.22	2.50 _b	1.07		
Unfamiliar Service Workers	2.46 _c	1.16	2.37 _a	1.04	2.59 _c	1.25	2.44 _b	1.16	2.57 _b	1.17		

Note. Means with different subscripts within the respective sex and living-environment categories are significantly different at the .05 level. All means are based on a 1-5 rating scale. Lower means signify lower frequency while higher means indicate greater frequency. Table 4

Table 4
 Means for Self-Esteem, Functional Health, General Health, and Beliefs about Aging by Gender and Living Environment

Variable	All Participants			Men			Women			Community Living			Nursing Home		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Age	72	7.9	159	71	6.3	76	73	9.02	83	69	5.21*	131	83	8.14	28
Self-Esteem	4.15	.500		4.13	.487		4.17	.512		4.20	.469*		3.93	.579	
Functional Health	2.89	3.34		3.41	2.99		2.42	3.58		3.37	3.01*		.64	3.91	
General Health	2.68	2.26		2.51	2.42		2.83	2.10		2.80	2.32		2.08	1.84	
Beliefs About Aging	3.10	1.10		3.20	1.16		3.01	1.03		2.99	1.11*		3.63	.846	

Note. *p<.05. All means are based on a 1-5 rating scale. Lower means indicate a lower self-esteem, general health etc. while higher means indicate higher measures. Means on either side of * are statistically different.

Table 5

Correlations between Variables and Perceptions of Warmth and Superiority for each Speaker-Type

<u>ParticipantGroup</u>	N	<u>Warmth</u>					<u>Superiority</u>				
		FRIEND	SAFM	YFM	FSW	UFSW	FRIEND	SAFM	YFM	FSW	UFSW
Age	159	.33**	.36**	.40**	.32**	.38**	-.23**	-.23**	-.23**	-.28**	-.29**
General Health	159	-.23**	-.25**	-.19*	-.06	-.10	.16	.27**	.17*	.10	.09
Functional Health	159	-.30**	-.32**	-.25**	-.15	-.21**	.16*	.26**	.17*	.11	.08
Beliefs About Aging	159	-.30**	-.29**	-.27**	-.20*	-.14	.22**	.17*	.14	.11	.09
Self-esteem	159	-.24**	-.13	-.09	-.15	-.12	.13	.12	.07	.10	.10

Note. SAFM = same age family member; YFM = younger family member; FSW = familiar service worker; UFSW = unfamiliar service worker.

*p < .05. **p < .01.

Table 6

Correlations between Variables and Perceptions of Warmth and Superiority for each Speaker-Type when all other Variables are Controlled

Participant Group	<u>Warmth</u>					<u>Superiority</u>					
	FRIEND	SAFM	YFM	FSW	UFSW	FRIEND	SAFM	YFM	FSW	UFSW	
All	159	Age .19*	Age .22*	Age .31*	Age .25*	Age .30**	Age -.16*	Age -.15*	Age -.17*	Age -.26**	Age -.30**
Men	76	Age .24*	Age .24*	Age .23*	Age .22*	Age .28*	Age -.25*	Age -.21*	Age -.24*	Age -.27*	Age -.27*
Women	88	Beli .35**	Beli .32**	Beli .27**	Beli .22*	Age .21*	GH -.27**	GH .33**	Beli -.28**	Beli -.28**	GH .22*
Community Living	131	Beli .17*	Beli .19*	Age .22**	Age .21*	GH .24*	FH -.21*				Age -.23**
Nursing Home	28		GH -.36*		Age .39*			GH .38*			

Note. SAFM = same age family member; YFM = younger family member; FSW = familiar service worker; UFSW = Unfamiliar service worker.

Beli = Beliefs about aging; FH = Functional Health; GH = General Health.

*p < .05. **p < .01.

Table 7
Partial Correlations for Perceptions and Received Frequency of Elderspeak in the Prediction of Self-Esteem

Participants	N	Friend	Same Age Family Member	Younger Family Member	Familiar Service Worker	Unfamiliar Service Worker
		Partial r	Partial r	Partial r	Partial r	Partial r
Men						
	76					
Warmth		-0.07	-.29*	.22	-.05	.18
Superiority		-0.03	.20	-.12	.23	-.12
Women						
	83					
Warmth		-.10	.37**	-.08	.13	.11
Superiority		-.20	-.27*	.05	-.22	-.13
Community-Living						
	131					
Warmth		-.04	.04	-.14	-.02	-.21*
Superiority		-.06	-.03	.06	.06	.10
Nursing-Home						
	28					
Warmth		.11	.08	.08	.06	.16
Superiority		-.27	-.09	-.13	-.03	-.27

Note. Shaded partials were curvilinear and were not interpreted.
 * $p < .05$. ** $p < .01$.

Table 8
 Partial Correlations for Perceptions and Presumed Frequency of Elderspeak in the Prediction of Self-Esteem

Participants	N	Friend	Same Age Family Member	Younger Family Member	Familiar Service Worker	Unfamiliar Service Worker
		Partial r	Partial r	Partial r	Partial r	Partial r
<u>Men</u>	76					
Warmth		.28**	-.04	.08	-.07	-.14
Superiority		-.30**	.00	-.06	.17	.22*
<u>Women</u>	83					
Warmth		-.12	.13	.10	.05	-.06
Superiority		-.11	-.14	-.17	-.06	.06
<u>Community-Living</u>	131					
Warmth		.13	.04	.00	.02	-.16
Superiority		-.25**	-.13	-.03	-.00	.16
<u>Nursing-Home</u>	28					
Warmth		-.38*	.09	.25	-.23	-.01
Superiority		.14	.00	-.37	.18	-.00

Note. Shaded partials were curvilinear and were not interpreted.

*p < .05. **p < .01.

Figure Captions

Figure 1. Perceptions of elderspeak on the dimensions of Warmth and Superiority for each speaker-type for all participants.

Figure 2. Men's perceptions of elderspeak on the dimensions of Warmth and Superiority for each speaker-type.

Figure 3. Women's perceptions of elderspeak on the dimensions of Warmth and Superiority for each speaker-type.

Figure 4. The perceptions of community living participants on the dimensions of Warmth and Superiority for each speaker-type.

Figure 5. The perceptions of nursing home participants on the dimensions of Warmth and Superiority for each speaker-type.

Figure 6. Received frequency of elderspeak from each of the speaker-types for men and women.

Figure 7. Received frequency of elderspeak from each of the speaker-types for community and nursing home residents.

Figure 8. Presumed frequency of elderspeak from each of the speaker-types for men and women.

Figure 9. Presumed frequency of elderspeak from each of the speaker-types for community and nursing home residents.

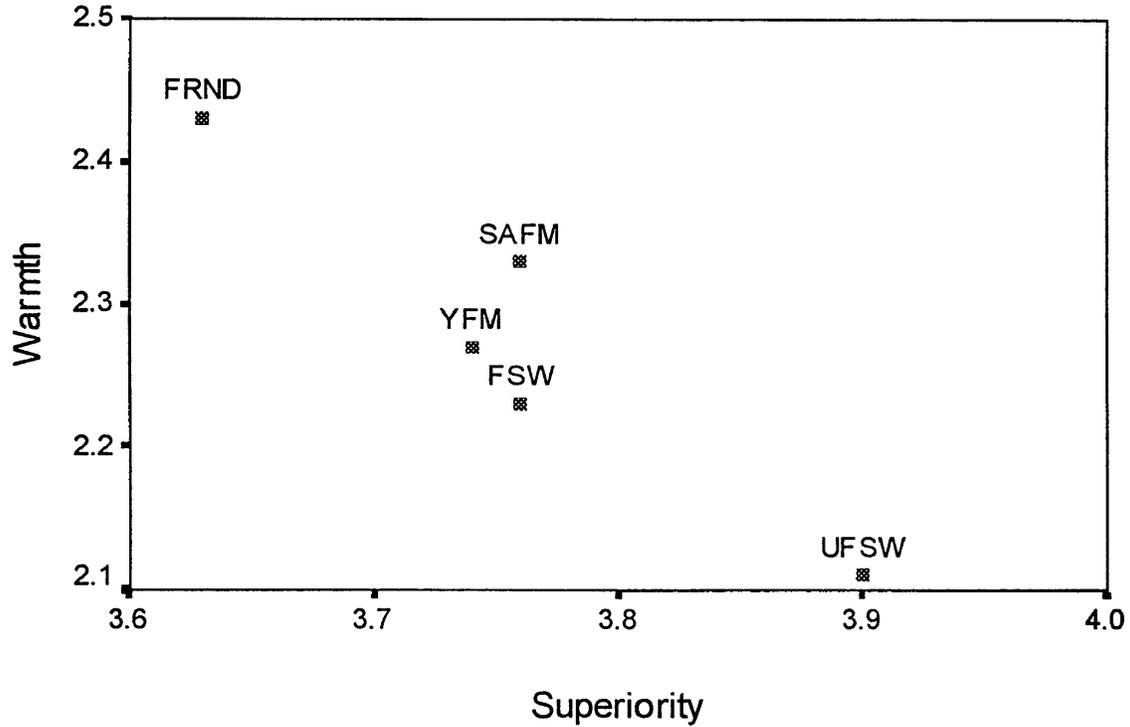
Figure 10. Regression lines for self-esteem on perceptions of elderspeak for three levels of frequency for men on both the Warmth and Superiority dimensions.

Figure 11. Regression lines for self-esteem on perceptions of elderspeak for three levels of frequency for women on both the Warmth and Superiority dimensions..

Figure 1

All Participants

Warmth and Superiority Trend



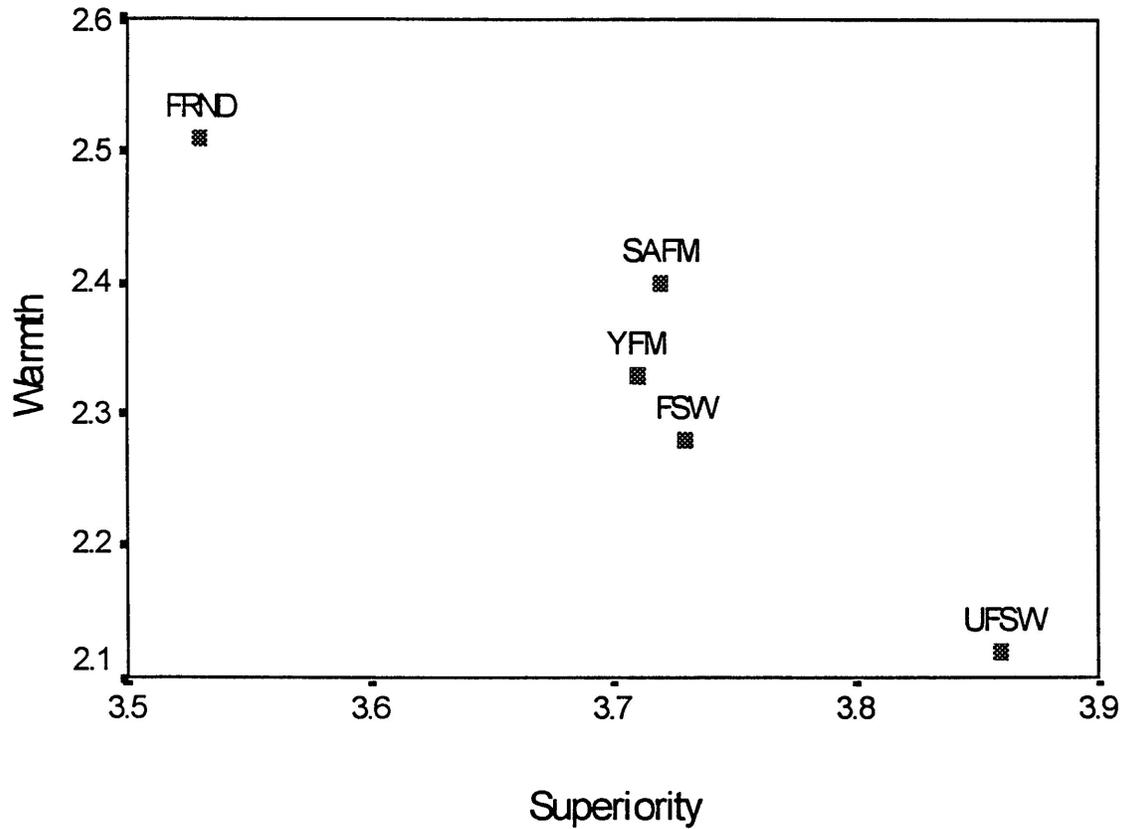
<u>WARMTH</u>				<u>SUPERIORITY</u>			
			<u>SIG</u>				<u>SIG</u>
FRND	vs	SAFM		FRND	vs	SAFM	**
FRND	vs	YFM	**	FRND	vs	YFM	
FRND	vs	FSW	**	FRND	vs	FSW	**
FRND	vs	USFW	**	FRND	vs	USFW	**
SAFM	vs	YFM		SAFM	vs	YFM	
SAFM	vs	FSW	**	SAFM	vs	FSW	
SAFM	vs	UFSW	**	SAFM	vs	UFSW	**
YFM	vs	FSW		YFM	vs	FSW	
YFM	vs	UFSW	**	YFM	vs	UFSW	**
FSW	vs	UFSW	**	FSW	vs	UFSW	**

Note. Frnd = Friend; SAFM = Same age family member; YFM = Younger family member; FSW = Familiar service worker; UFSW = Unfamiliar service worker.

**p < .05.

Figure 2

Men's Warmth and Superiority Perceptions



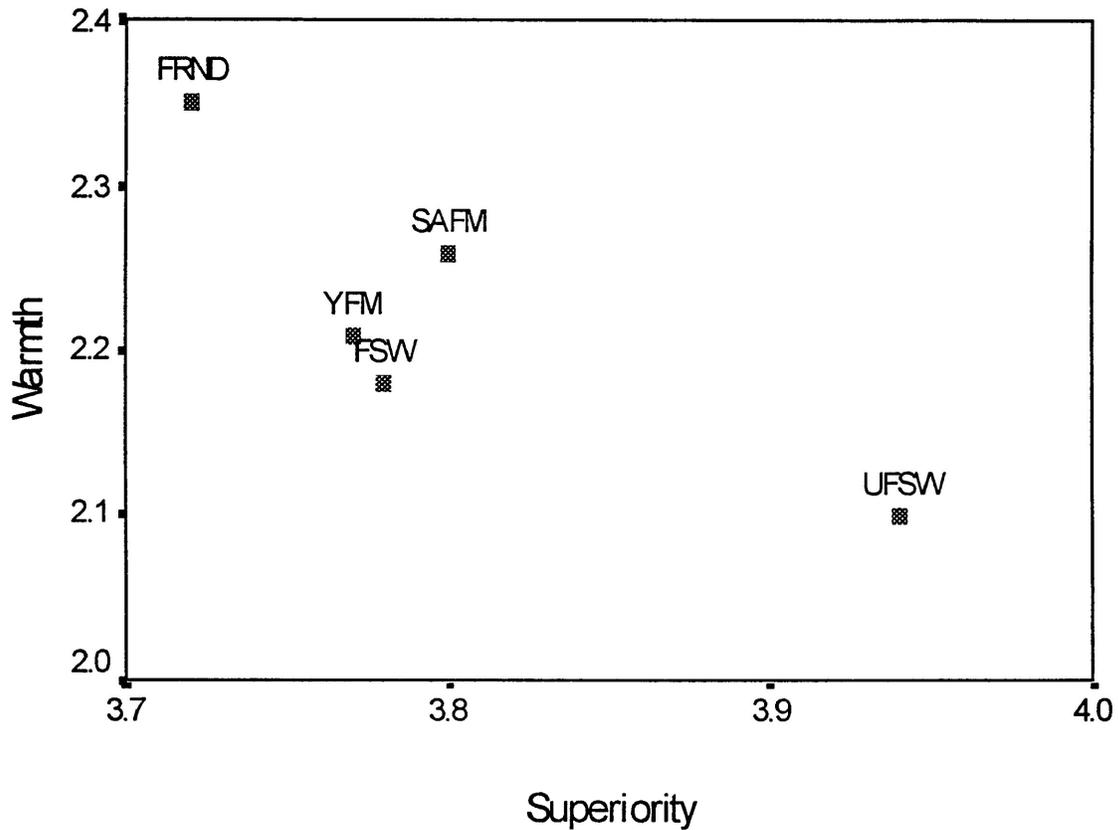
<u>WARMTH</u>				<u>SUPERIORITY</u>			
			<u>SIG</u>				<u>SIG</u>
FRND	vs	SAFM		FRND	vs	SAFM	**
FRND	vs	YFM		FRND	vs	YFM	
FRND	vs	FSW	**	FRND	vs	FSW	**
FRND	vs	UFSW	**	FRND	vs	UFSW	**
SAFM	vs	YFM		SAFM	vs	YFM	
SAFM	vs	FSW	**	SAFM	vs	FSW	
SAFM	vs	UFSW	**	SAFM	vs	UFSW	
YFM	vs	FSW		YFM	vs	FSW	
YFM	vs	UFSW	**	YFM	vs	UFSW	
FSW	vs	UFSW	**	FSW	vs	UFSW	**

Note. Frnd = Friend; SAFM = Same age family member; YFM = Younger family member; FSW = Familiar service worker; UFSW = Unfamiliar service worker.

**p < .05.

Figure 3

Women's Warmth and Superiority Perceptions



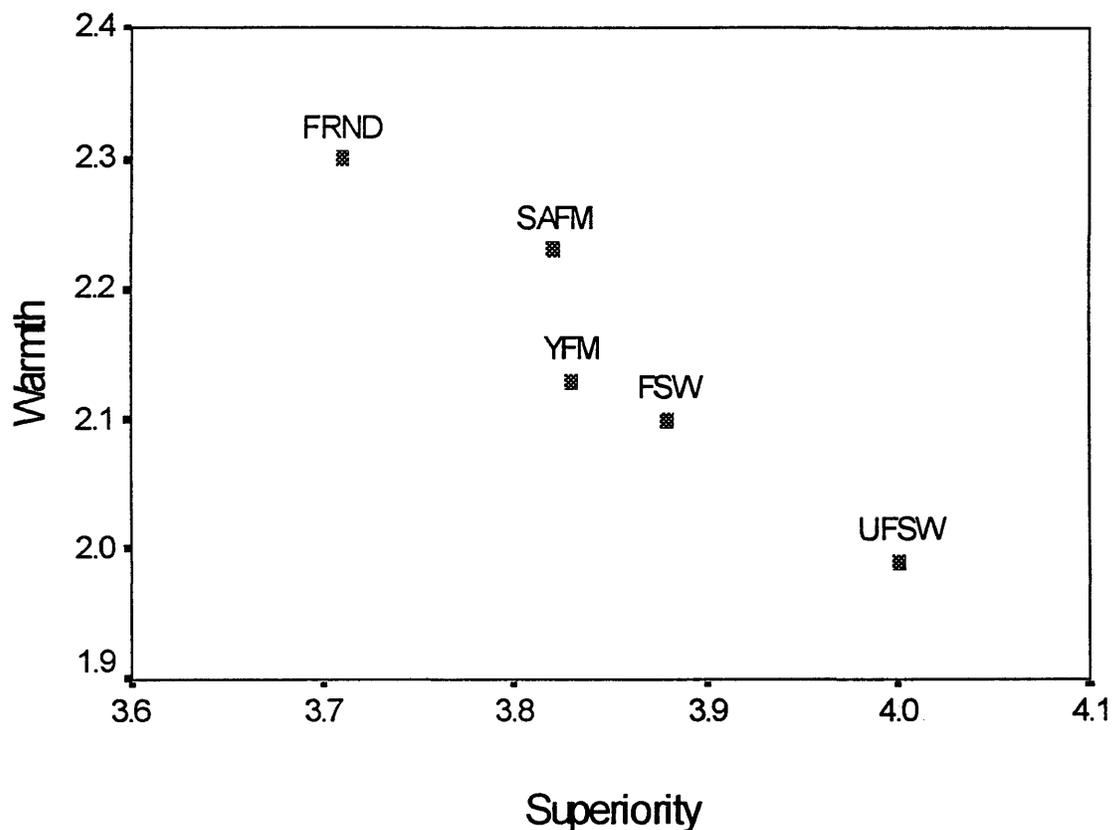
<u>WARMTH</u>				<u>SUPERIORITY</u>			
			<u>SIG</u>				<u>SIG</u>
FRND	vs	SAFM		FRND	vs	SAFM	
FRND	vs	YFM		FRND	vs	YFM	**
FRND	vs	FSW	**	FRND	vs	FSW	**
FRND	vs	USFW	**	FRND	vs	USFW	**
SAFM	vs	YFM		SAFM	vs	YFM	
SAFM	vs	FSW		SAFM	vs	FSW	
SAFM	vs	USFW		SAFM	vs	USFW	
YFM	vs	FSW		YFM	vs	FSW	
YFM	vs	USFW		YFM	vs	USFW	
FSW	vs	USFW		FSW	vs	USFW	

Note. FRND = Friend; SAFM = Same age family member; YFM = Younger family member; FSW = Familiar service worker; USFW = Unfamiliar service worker.

**p < .05.

Figure 4

Community Living Participant's Warmth and Superiority Perceptions



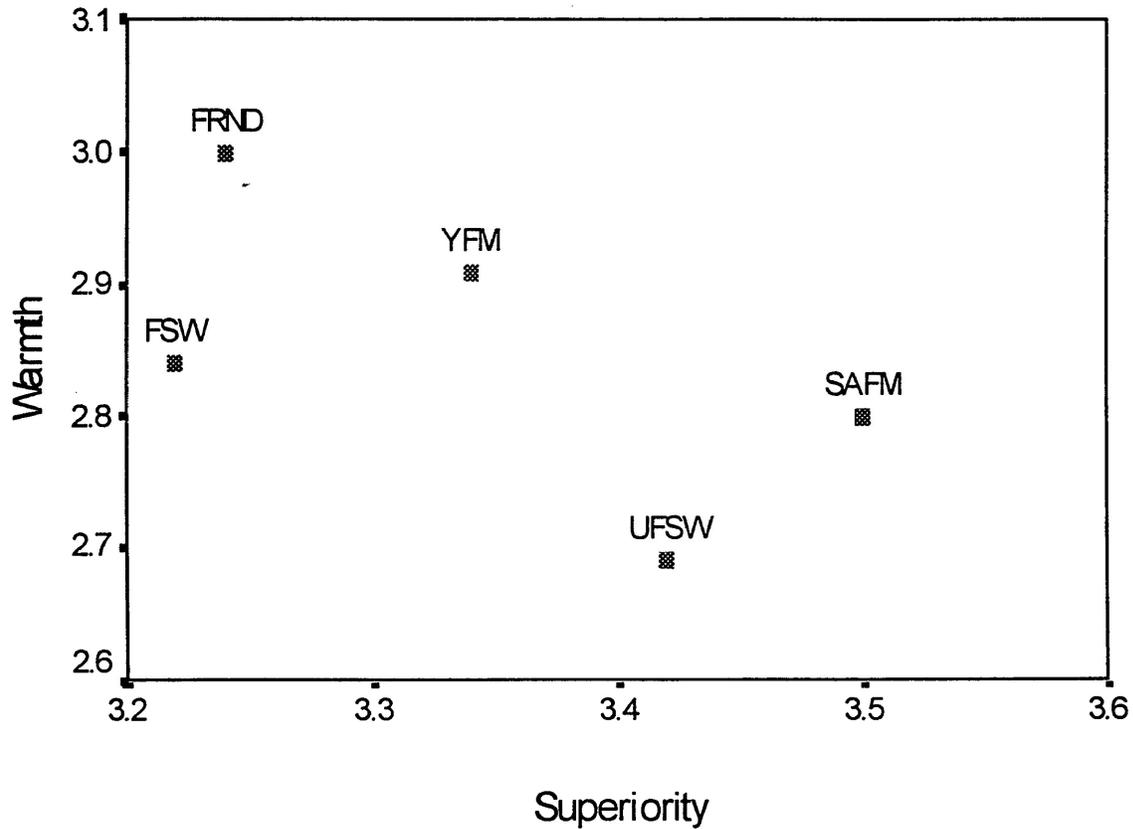
<u>WARMTH</u>				<u>SUPERIORITY</u>			
			<u>SIG</u>				<u>SIG</u>
FRND	vs	SAFM		FRND	vs	SAFM	
FRND	vs	YFM	**	FRND	vs	YFM	
FRND	vs	FSW	**	FRND	vs	FSW	**
FRND	vs	UFSW	**	FRND	vs	UFSW	**
SAFM	vs	YFM		SAFM	vs	YFM	
SAFM	vs	FSW	**	SAFM	vs	FSW	
SAFM	vs	UFSW	**	SAFM	vs	UFSW	**
YFM	vs	FSW		YFM	vs	FSW	
YFM	vs	UFSW	**	YFM	vs	UFSW	**
FSW	vs	UFSW	**	FSW	vs	UFSW	**

Note. FRND = Friend; SAFM = Same age family member; YFM = Younger family member; FSW = Familiar service worker; UFSW = Unfamiliar service worker.

**p < .05.

Figure 5

Nursing Home Living Participant's Warmth and Superiority Perceptions



WARMTH

SUPERIORITY

SIG

SIG

FRND	vs	SAFM
FRND	vs	YFM
FRND	vs	FSW
FRND	vs	USFW
SAFM	vs	YFM
SAFM	vs	FSW
SAFM	vs	UFSW
YFM	vs	FSW
YFM	vs	UFSW
FSW	vs	UFSW

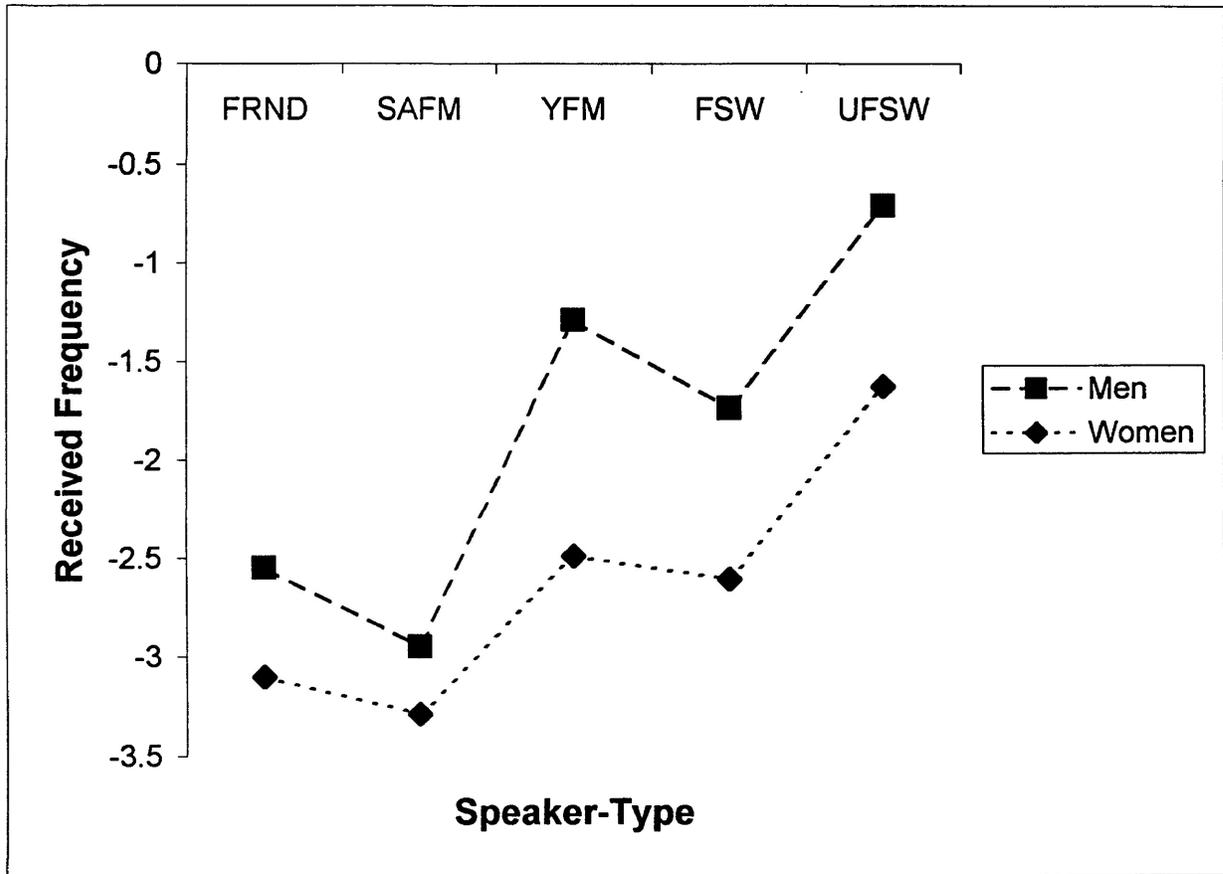
FRND	vs	SAFM
FRND	vs	YFM
FRND	vs	FSW
FRND	vs	USFW
SAFM	vs	YFM
SAFM	vs	FSW
SAFM	vs	UFSW
YFM	vs	FSW
YFM	vs	UFSW
FSW	vs	UFSW

Note. FRND = Friend; SAFM = Same age family member; YFM = Younger family member; FSW = Familiar service worker; UFSW = Unfamiliar service worker.

**p < .05.

Figure 6

Received Frequency for Men and Women



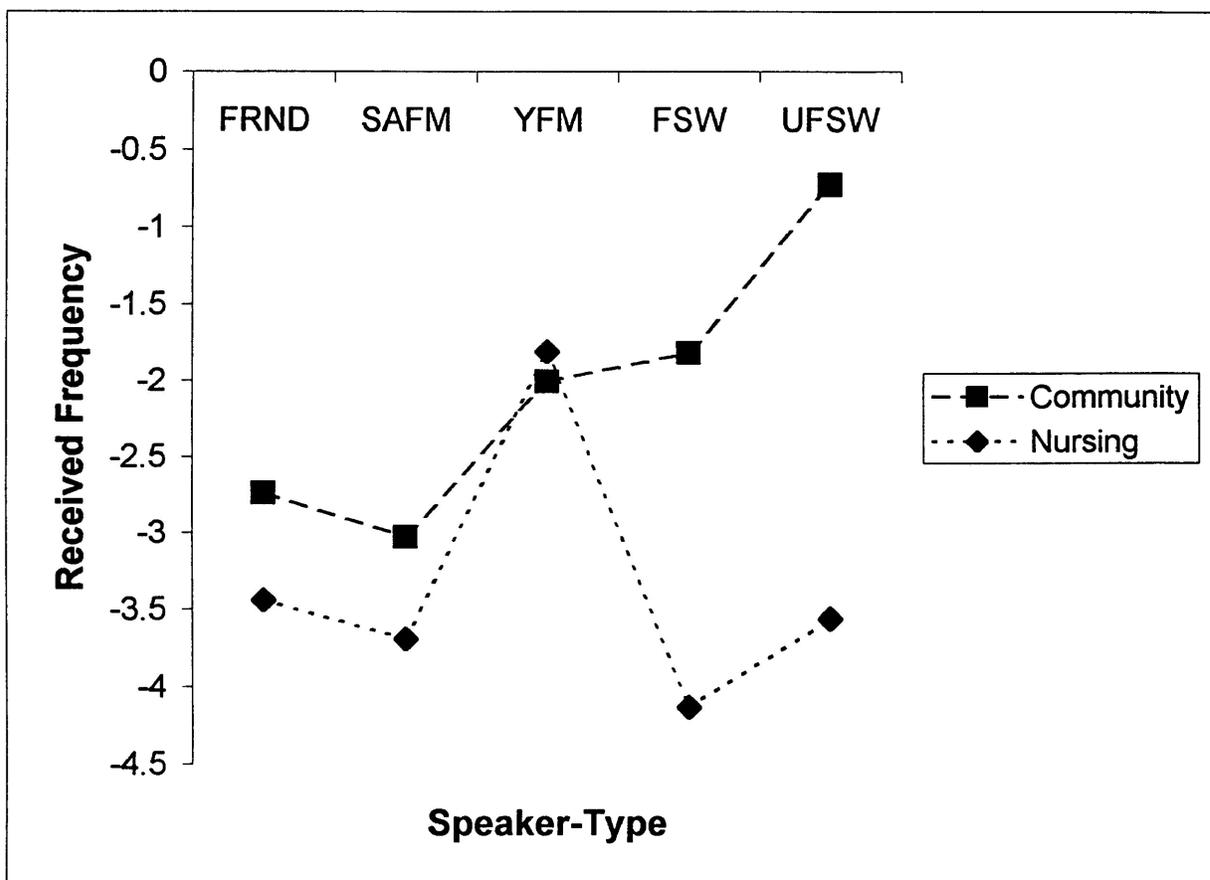
<u>MEN</u>				<u>WOMEN</u>			
	vs		<u>SIG</u>		vs		<u>SIG</u>
FRND	vs	SAFM	.	FRND	vs	SAFM	
FRND	vs	YFM	**	FRND	vs	YFM	
FRND	vs	FSW		FRND	vs	FSW	
FRND	vs	USFW	**	FRND	vs	USFW	**
SAFM	vs	YFM	**	SAFM	vs	YFM	
SAFM	vs	FSW		SAFM	vs	FSW	
SAFM	vs	UFSW	**	SAFM	vs	UFSW	**
YFM	vs	FSW		YFM	vs	FSW	
YFM	vs	UFSW		YFM	vs	UFSW	
FSW	vs	UFSW	**	FSW	vs	UFSW	**

Note. FRND = Friend; SAFM = Same age family member; YFM = Younger family member; FSW = Familiar service worker; UFSW = Unfamiliar service worker.

**p < .05.

Figure 7

Received Frequency for Community and Nursing Home Residents



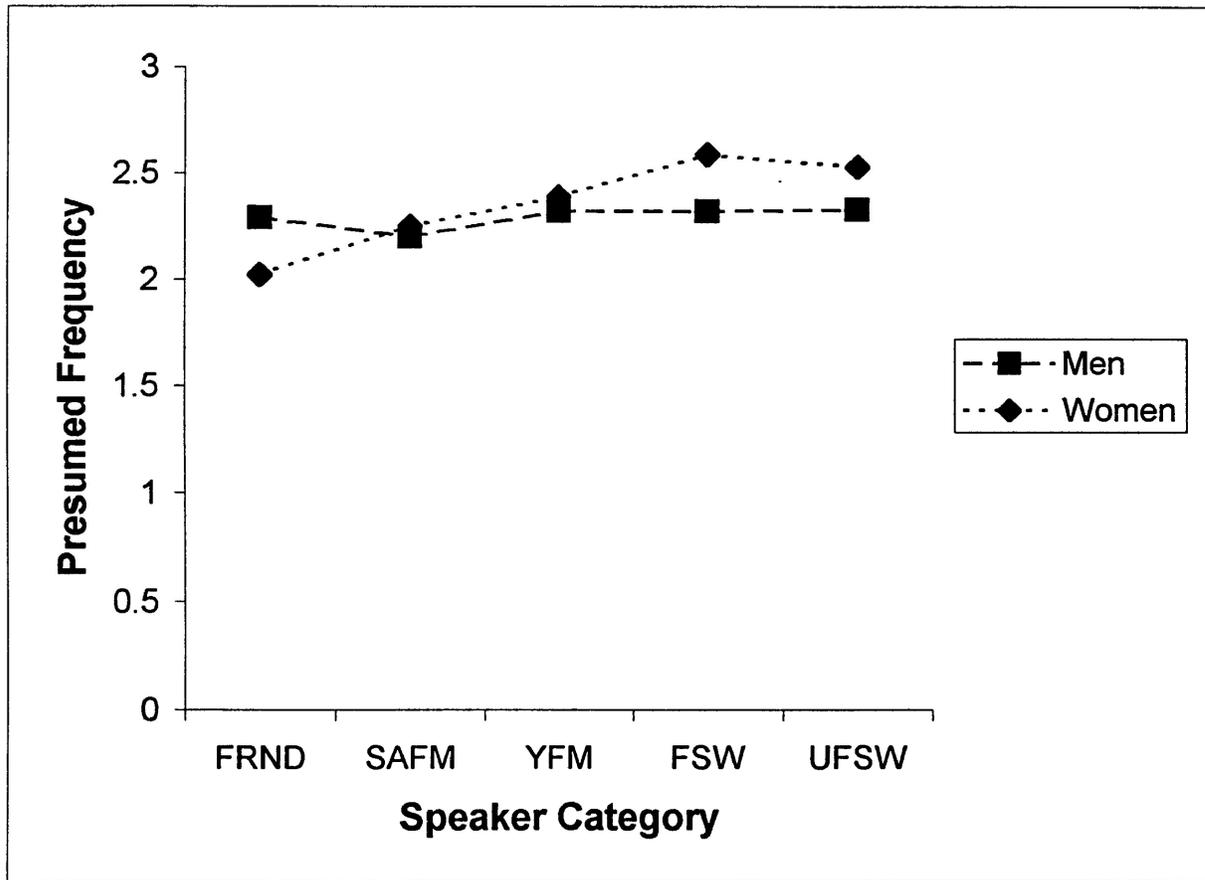
<u>COMMUNITY</u>				<u>NURSING HOME</u>				
	vs		<u>SIG</u>		vs		<u>SIG</u>	
FRND	vs	SAFM		FRND	vs	SAFM		
FRND	vs	YFM		FRND	vs	YFM		
FRND	vs	FSW	**	FRND	vs	FSW		
FRND	vs	USFW	**	FRND	vs	USFW		
SAFM	vs	YFM	**	SAFM	vs	YFM		
SAFM	vs	FSW	**	SAFM	vs	FSW		
SAFM	vs	UFSW	**	SAFM	vs	UFSW		
YFM	vs	FSW		YFM	vs	FSW	**	
YFM	vs	UFSW	**	YFM	vs	UFSW		
FSW	vs	UFSW	**	FSW	vs	UFSW		

Note. FRND = Friend; SAFM = Same age family member; YFM = Younger family member; FSW = Familiar service worker; UFSW = Unfamiliar service worker.

**p < .05.

Figure 8

Presumed Frequency for Men and Women



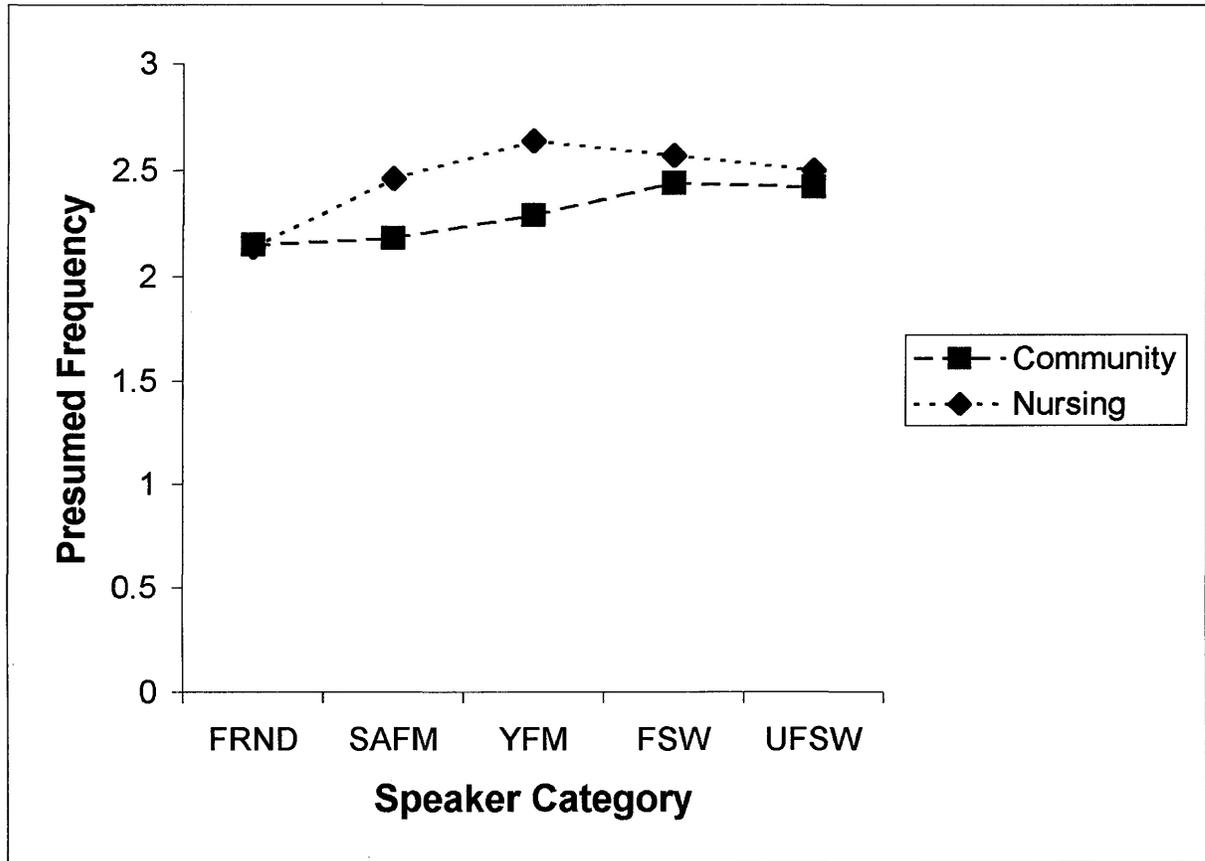
<u>MEN</u>				<u>WOMEN</u>			
	vs		<u>SIG</u>		vs		<u>SIG</u>
FRND	vs	SAFM		FRND	vs	SAFM	
FRND	vs	YFM	**	FRND	vs	YFM	
FRND	vs	FSW	.	FRND	vs	FSW	
FRND	vs	USFW	**	FRND	vs	USFW	**
SAFM	vs	YFM	**	SAFM	vs	YFM	
SAFM	vs	FSW		SAFM	vs	FSW	
SAFM	vs	UFSW	**	SAFM	vs	UFSW	**
YFM	vs	FSW		YFM	vs	FSW	
YFM	vs	UFSW		YFM	vs	UFSW	
FSW	vs	UFSW	**	FSW	vs	UFSW	**

Note. FRND = Friend; SAFM = Same age family member; YFM = Younger family member; FSW = Familiar service worker; UFSW = Unfamiliar service worker.

**p < .05.

Figure 9

Presumed Frequency for Community and Nursing Home Residents



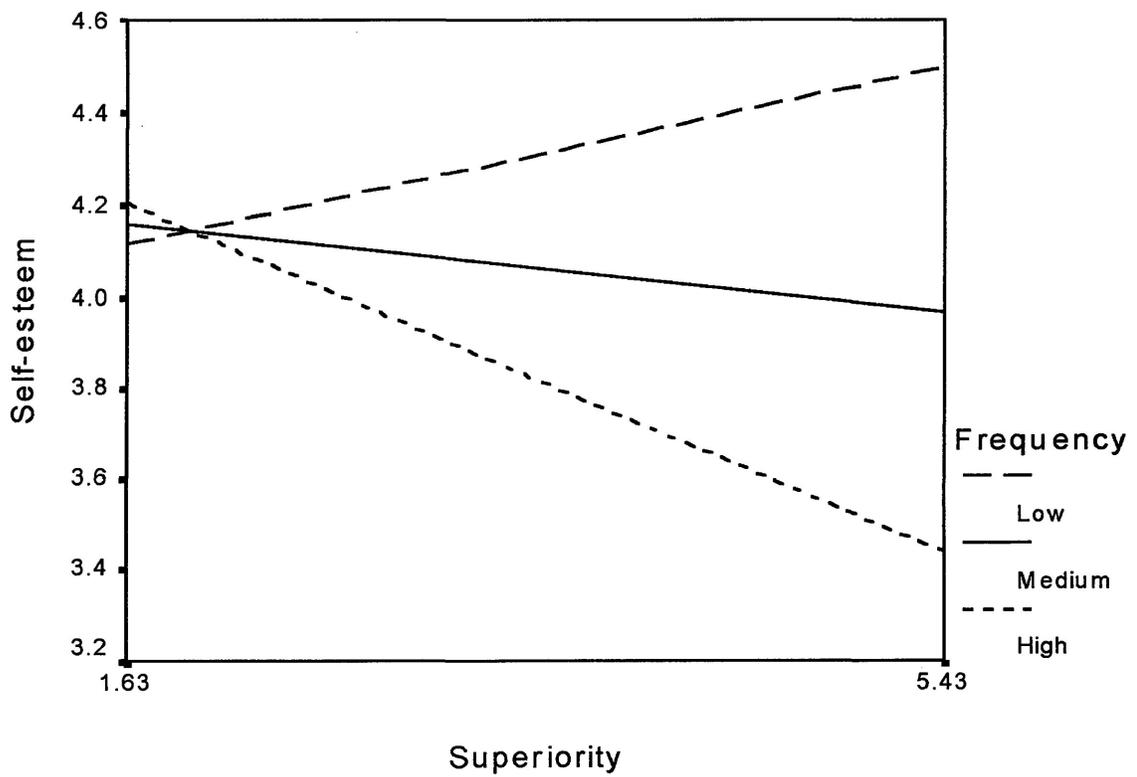
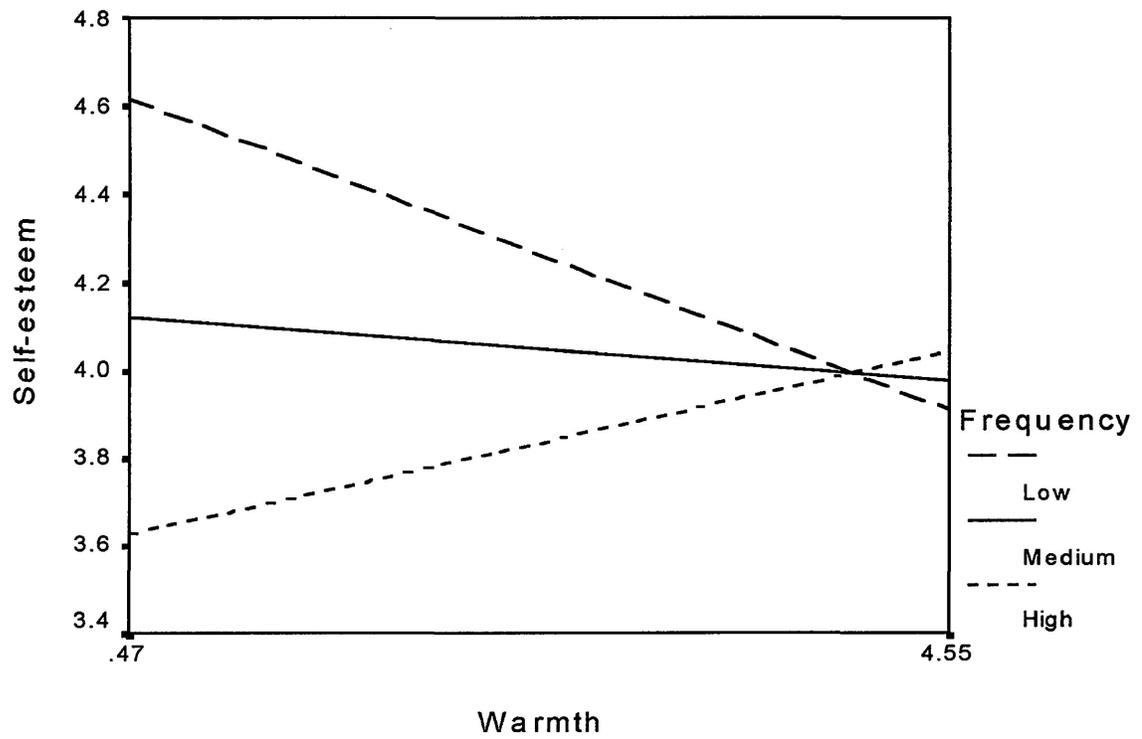
<u>Community</u>				<u>Nursing-Home</u>			
			<u>SIG</u>				<u>SIG</u>
FRND	vs	SAFM		FRND	vs	SAFM	
FRND	vs	YFM		FRND	vs	YFM	**
FRND	vs	FSW	**	FRND	vs	FSW	**
FRND	vs	USFW	**	FRND	vs	USFW	**
SAFM	vs	YFM		SAFM	vs	YFM	
SAFM	vs	FSW	**	SAFM	vs	FSW	
SAFM	vs	UFSW	**	SAFM	vs	UFSW	
YFM	vs	FSW		YFM	vs	FSW	
YFM	vs	UFSW		YFM	vs	UFSW	
FSW	vs	UFSW		FSW	vs	UFSW	

Note. FRND = Friend; SAFM = Same age family member; YFM = Younger family member; FSW = Familiar service worker; UFSW = Unfamiliar service worker.

**p < .05.

Figure 10

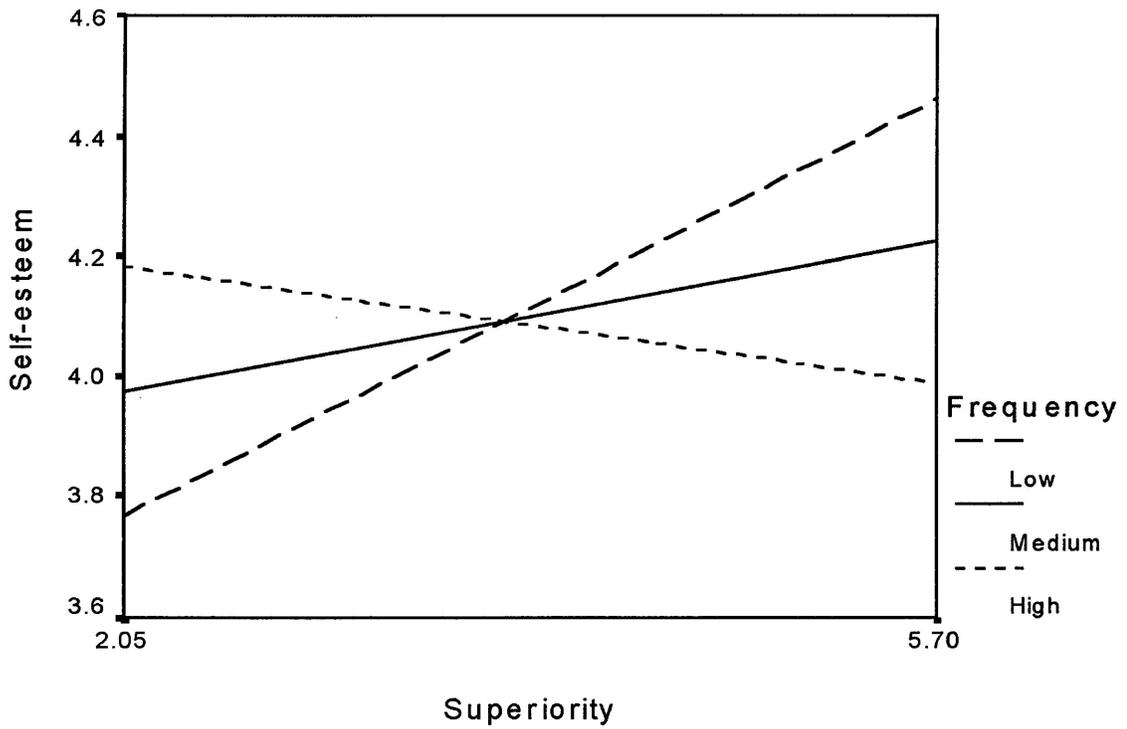
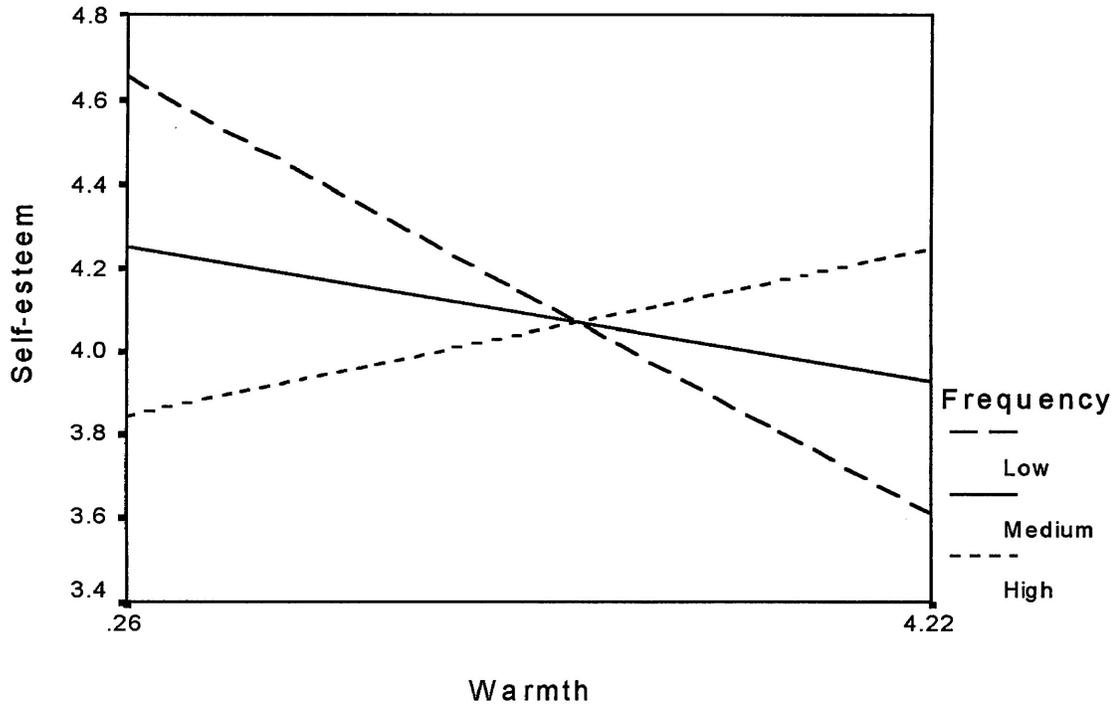
Relationship Between the Frequency and Perception of Elderspeak and Men's Self-Esteem



Note. Frequency on this figure refers to the presumed frequency measure.

Figure 11

Relationship Between the Frequency and Perception of Elderspeak and Women's Self-Esteem



Note. Frequency on this figure refers to the recieved frequency measure.