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SEX DIFFERENCES IN LANGUAGE USAGE IN AN OLDER POPULATION

THE UNIVERSITY OF ARIZONA

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SEX DIFFERENCES IN LANGUAGE USAGE
IN AN OLDER POPULATION

by
Nan Kay Nye

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STATEMENT BY AUTHOR

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ABSTRACT

To test the hypothesis that a role/reversal/androgyny in later years manifests itself in language usage, 30 subjects (15 male and 15 female, 65 years of age or older) were recruited. A speech sample was elicited from the respondents by the presentation of a picture for description, the descriptions being tape recorded. Dependent variables were verbosity and the use of numerals, approximators, evaluative adjectives, modifiers, and hedges, and self-referents. Gender was the single independent variable. It was hypothesized that the differences which exist between males and females in the dependent variables are a direct reversal of those in a younger population, as demonstrated by several published studies with which the results of the present research were compared. Data demonstrate, with a single exception - that of the use of approximators which precede numerals - the hypotheses were not supported.

CHAPTER I

INTRODUCTION

Year by year, human life expectancy increases. People are living longer. Botwinick (1978) notes that by the year 2000, those over 65 will comprise nearly 15% of the American population. As the number of aged increases, this expansion will surely be reflected in greater demands for human services.

For many in the helping professions, the older client constitutes an unfamiliar population. As counselors or therapists, providers of medical care, educators or social workers, we have come to have certain expectations of male and female clients. These expectations include the different way they present their problems and the manner in which their concerns differ. Our experience tells us that psychologically and socially, men and women behave differently. Perhaps as the elderly clientele grows, it would behoove us to examine our assumptions and expectations with this expanding population. Do older women present themselves and their problems in the way younger women do? Are older men different only in age from younger men? This study has been designed to examine one aspect of those differences, that of language usage. Speech samples were elicited via the invitation to describe a picture, and those samples were compared - male to female - in terms of verbosity, use of numerals and approximators, evaluative adjectives, modifiers and hedges, and self-referents.

Theoretical Rationale for the Study

Gender Role Transitions

Do sex differentiated personality changes - gender role transitions - take place in an aging population? The answer, according to the literature, is yes. Gender roles do shift in the adult years.

In one of the first psychological descriptions of midlife transitions, Jung (1933) wrote:

How often it happens that a man...winds up his business, and that his wife then dons the trousers and opens a little shop where he sometimes performs the duties of handyman. There are many women who only awake to social responsibility and to social consciousness after their fortieth year. In modern business life - especially in the United States - nervous breakdown in the forties and after is a very common occurrence. If one studies the victims a little closely one sees that the thing which has broken down is the masculine style of life which held the field up to now; what is left over is an effeminate man. Contrariwise, one can observe women in these self-same business spheres who have developed in the second half of life an uncommon masculinity and an incisiveness which push the feelings and the heart aside. (p. 107-108)

Based on responses to the Thematic Apperception Test administered by Neugarten and Gutmann (1958), it may be seen that women, as they age, seem to become more tolerant of their own aggressive, egocentric impulses; while men, as they age, of their own nurturant and affiliative impulses. Lowenthal, Thurner and Chiroboga (1975) note a trend from passive to active, and, with exceptions, a trend from active to passive for men. Lowenthal (1977) sees men as moving toward interpersonal commitments and women as reaching out for more self-assertion. "In short, both sexes reported a felt need for a strengthening of

commitment in an area other than the one to which their normative sex roles had bound them..." (Lowenthal, 1977). It appears then, that aging males are more interested in personal fulfillment and satisfaction (Peck, 1968; Zube, 1982) while older women become more assertive and dominant, more aggressive and managerial (Brim, 1976; Hess, 1979; Treas, 1975).

There are dissenting views however. Troll and Parron (1981) report the results of a study conducted by Livson which found that the greatest trend for mastery over passivity occurred in nontraditional older women - judged by personality scores - who had been following traditional gender role behavior during their childrearing years. Women who had more traditional personality characteristics remained passive. Lowenthal, Thurner and Chiroboga (1975) found significant exceptions in the trend from active to passive for older males; significant enough to suggest that the differences may be less as we look at groups by sex, than at individuals. Puglisi and Jackson (1981), in research on gender role identity and self esteem, found that an hypothesis of converging gender role characteristics as measured by the Bem Sex Role Inventory was not supported. Though the generalizability of the results is limited, it was found that men and women evidenced parallel patterns of gender role identification across age ranges, in this case, 17 to 89 years.

Nevertheless, the evidence increases that sex-differentiated personality changes take place in an aging populace. These changes seem to involve an increase in stereotypical masculine characteristics for women, and feminine ones for men. In an excellent review of the literature (Troll and Parron, 1981), the authors conclude with these

words: "To the extent that intrapsychic changes occur, these appear to be reflected primarily in expressive interpersonal behavior: men express more tenderness, or more dependency; women express more autonomy, or more dominance."

The degree to which these changes occur, however, and the causes for such an occurrence are far more difficult to assess. The work of two theoreticians seems to dominate the literature: David Gutmann's theory of role-reversal, and Jan Sinnott's theory of androgyny or role-blurring.

Gutmann's Theory of Role-Reversal

Gutmann (1968, 1975, 1976, 1977, 1978) asserts that traditional gender roles reach their peak during active parenting years, and then wane during old age. He sees a masculinization of older women, which he defines as a move from dependence on and deference to a male - husband or otherwise - to a more active mastery; and a feminization of older men, which he characterizes in terms of a movement away from competitiveness, agency and independence. Gutmann refers to a "massive transcultural involution" (Gutmann, 1975). At first glance, an androgynous ideal seems implicit, but close inspection reveals otherwise. Instead, it seems that Gutmann is referring to a role reversal. Rather than asserting that men and women both become more androgynous in later life, the theory maintains that women become masculine and men feminine: "An impressive turnover of sex-roles takes place, wherein there is some relinquishment of these personal qualities that were previously conserved for the self, in exchange for those that were partialled out to the mate." (Gutmann, 1978). Gutmann

claims this role reversal is transcultural, and therefore developmental. The former claim is substantiated by anthropological evidence.

Yap (1962) reports that unlike younger Chinese men, the elderly male is expected to practice self-cultivation, worship and meditation rather than being achievement-oriented and aggressive. Further, he notes that aging women may take over family control, even when the husband is still a part of the family unit. Quain (1948) observes that Fijian men become "domesticated", bestowing increasing time and affection on the women of their households and on their gardens as they age. Leonard (1967) finds that the "Chicana" in Mexican/American society is conceded considerable social power as she grows older. Simmons (1945) describes the elder Hopi male as carding wool, knitting, or cornshelling, tasks usually considered "women's work." Spencer (1965) reports on the Samburu, a nomadic African tribe, and finds that older women acquire much more status, and older men engage in a more passive mastery. Wershow (1969), studying the aging kibbutznik in Israel, discovered they lived a more placid, domesticated life than did younger males.

Clearly, cross-cultural evidence exists. It remains questionable however, that such evidence proves Gutmann's thesis that role-reversal is developmental. According to his view, parenthood impels each sex to surrender to the other, certain sex-typed qualities that might interfere with children's welfare:

Male providers of physical security give up the dependency needs that would interfere with their courage and endurance; these they live out through identification with their wives and children. By the same token, women, the providers of emotional

security, give up the aggression that could alienate their male providers or that could damage a vulnerable and needful child. Each sex lives out, through the other, those aspects of their nature that could interfere with adequate performance in their parental role, and that could therefore be lethal to their children.

But as children take over the responsibility of their own security, the chronic sense of parental emergency passes out, and both sexes can afford to live out the potentials that they once had to relinquish in the service of their parental task. Men recapture the "femininity"... and women generally become more domineering and independent. (Gutmann, 1977, p. 31)

The parental imperative may indeed be a factor in human development, but its applications seem limited. As Self (1975) notes, this can only be true for women and men who meet several criteria. They must be married, and they must have had one or more children who have survived for a period of time. Gutmann's views of a traditional model of marriage and parenthood must come under scrutiny in today's world of an increasing divorce rate, childless couples, single parent families and working women. According to Ahammer (1973), the traditional view of a couple married for 40 years, having raised two children, with the wife dependent upon her husband both for material and social rewards, may represent only one special case in the role distribution in marriage and parenthood. Neither are societies in which kinship, residence and division of labor patterns differ, accounted for. As McGee and Wells (1982) note: "In general, the theory tends to emphasize global contrasts between women and men, giving little attention to within-sex variation, situational variation, and cultural specificity."

Sinnott's Theory of Role Blurring

The other major theoretical view holds that male-female role blurring, or "combined sex role" represents an aspect of superior psychological adjustment and positive adaptation to old age. This is Sinnott's (1977) "androgyny in old age." This dialectic theory holds that a person's ability to show life span variations in gender typing is an indication of general flexibility, which in turn is related to successful aging and a longer life span: "Survival and satisfaction in old age are often concomitant with adoption of sex roles which combine traits culturally defined as masculine and traits culturally defined as feminine." (Sinnott, 1977). Rather than a developmental stage, universal in the aging adult, Sinnott sees a coping mechanism at work.

Sinnott's theory is not without contradiction in the literature. McGee and Wells (1982) note that the data cited are limited in several ways. First, some of the evidence comes from the use of projective measures and must be interpreted with caution. The use of Neugarten and Gutmann's (1968) Thematic Apperception Test data for example, may well serve to describe stereotypes of the aged by the aged, and not describe how old people actually behave or indeed assess themselves. Some studies are based on clinical samples, and the extent to which generalization can be made to non-clinical samples is not made clear. Finally, McGee and Wells (1982) contend that between-sex differences have been highlighted in this study, and much less so, within-sex differences.

There is evidence to support the idea of androgyny as being conducive to successful adaptation in later years however. The findings

of Neugarten, Havighurst and Tobin (1968) demonstrate that the most satisfied older member of either sex is the individual who has integrated some of the stereotypically masculine and feminine personality characteristics of passivity and aggression, of community and agency. Cool (1981), in a study of the women of Niola, a mountainous region in the center of the Island of Corsica, discovered that for her subjects, successful aging was related to the ability to modify ones lifestyle or role set. Although the study concerned only women, Cool asserts that her subjects' assessment of themselves as "more successful than their male counterparts in later life" (Cool, 1981), is due to the societal permission given to become more androgynous for females and not for males. Puglisi and Jackson (1981) found that androgynous individuals as assessed on the Bem Sex Role Inventory showed higher levels of self-esteem than did those rated as masculine, feminine, or undifferentiated.

Regardless of the theory adopted, evidence, both anecdotal and empirical, exists in sufficient amounts to substantiate the notion of role reversal at the most, androgyny at the least, in an aging population. Men do, to some degree at least, adopt some stereotypically feminine characteristics, while women become more stereotypically masculine. Whether this trend will continue, given our more androgynous society, is an interesting question, and one which cannot yet be answered. Regardless of that answer however, there is a sex differentiated personality change - a gender role transition - to be noted in those now over 65.

Sex Differences in Language

How might this role reversal/androgyny impact on the helper-helpee relationship? The bridge on which the counselor meets the client, the doctor his/her patient, the educator an adult student, is one of communication. And there is considerable evidence that men and women tend to communicate differently. Just as we accept the concept of dialects, we can now point to empirical studies which outline rather clear "genderlects" (Kramer, 1974). A brief examination of that evidence follows.

Fischer (1958) found that the -ing ending pronunciation symbolizes female speakers while the -in pronunciation is more typical of males when he examined English speaking children. Zimmerman and West (1975) detail male dominance of mixed dyad conversations via patterns of interruptions and silences. Lakoff (1975) finds female speech more formal and polite. Zimin (1981) agrees that women use language more deferentially, but claims that the differences are situational only. Scott (1980) found that speech characteristics stereotypically assigned to women are considered more correct and socially desirable by college students of both sexes. Labov (1966) speculated that men use more slang expressions than do women. Swacker (1975) found that women's sentences, while asking questions at professional conferences, were less than one half as long as men's. Bauman (1976) determined that females use tag questions ("It's a nice day, isn't it") and qualifying prefatory statements ("You may not agree with me, but...", or, "I may be wrong, but...") more frequently than males. Isenhardt (1980) discusses the fact that female sex is

positively associated with the ability to decode nonverbal cues. Kramer (1977) studied the sex assigned to speaker when eliciting stereotypes of female communicative behavior, and found 36 speech characteristics as sex differentiating. Warshay (1971) found that men use an instrumental style and women an affective language style. Garcia and Frosch (1976) determined that men, when describing a picture, refer more to spatial relationships and women more to patterns and colors. Even Ameslan, the American Sign Language of the deaf, does not escape sex differentiated usage. Jolly and O'Kelly (1980) note that men and women use different configurations to convey the same word. In the signing of the word "love", a man will cross his arms at the wrist, with closed fists over his heart. A woman traditionally uses a more feminine form of open palms gently crossed over her breasts. Studies, noted in more detail later, by Swacker (1975), Wood (1966), Glesser, Gottschalk and John (1959), Hartman (1976) and Crosby and Nyquist (1977), demonstrate that men are more verbose when presented with a given stimulus, use more words of quantity, fewer hedges or modifiers, fewer self referents, and fewer evaluative adjectives than do women. The evidence mounts for different communicative styles, i.e. language usage, dependent upon the sex of the speaker. Two excellent reviews of the literature are those of Key (1972) and Haas (1979).

The research on sex differences in language is certainly not without its critics however. Haas (1979) contends that more of the differences are situational ones that the researchers suggest. Speech is far too often broken into small units of study, and larger patterns may well be more relevant to gender differences, claim Kramer, Thorne and Henley (1978). There are other limitations in individual studies

as well. Small samples, conclusions without sufficient data to verify them, poor definition of linguistic variables - all make the global comparisons of male and female speech which so many of the studies purport to have, at the least in need of replicative research.

Kramer, Thorne and Henley (1978) note a researcher bias in light of feminism which has tended to emphasize findings of differences between the sexes more than findings of no differences. Nevertheless, sufficient evidence exists, both empirically and anecdotally, to support the contention of sex differentiated language usage, at least in a non-aged population.

Data are nearly unavailable on the sex differences in language usage in an aged population. And given the evidence for a role reversal/androgyny approach to the study of aging, and for that concerning itself with sex differences in language in the non-aged, it seems reasonable to investigate the possibility that there are differences in the language usage of older males and females, and that these differences are a reversal of the differences in a younger population.

Sex Differences in Communicative Behavior in the Aged

Although the present study concerns itself with some very specific aspects of language usage for which there is little data on an older population, there is rather striking research on the aged in the more general category of communicative behavior which supports the contention of a role reversal.

Mysak (1959) conducted a study which assessed the pitch characteristics of older males. The most significant findings were

an increase in pitch variability and a progressive increment in fundamental frequency or resonances of the vocal tract as a function of age. As they grow older, men lose some of the depth of voice which characterized their younger years, and have more variation in tone. In a parallel study, McGlone and Hollien (1963) applied Mysak's methodology to a sample of older women. In contrast, there was no change in fundamental frequency as age increased, and a decrease in pitch variability was noted.

These changes can easily be explained in terms of biological differences and changes with aging. Luchsinger and Arnold (1965) describe the progressive ossification of laryngeal cartilage, the gradual loss of muscle tonus, and a loss of male hormones in conjunction with a relative preponderance of gynergenic adrenal activity, as being conducive to the loss of the stereotypical masculine voice. McGlone and Hollien (1963) suggest that since anatomical changes in the female larynx are not as extensive during puberty, the degenerative changes are not as profound in later life.

Summary

That gender role transitions, or sex differentiated personality changes take place in later life is in little doubt according to the literature. Males become more nurturant, affiliative and passive; females more aggressive, active and dominant. Such transitions are dealt with by Gutmann (1968, 1975, 1976, 1977, 1978) as role reversals and explained in terms of a parental imparative. Sinnott (1977) sees these personality changes as role blurring or a move toward androgyny, and contends they are adaptive responses.

Evidence also exists to substantiate a claim of sex differentiated language usage. Research demonstrates that males and females use language differently. The claim is made that many of the reported differences are situational, but an impressive amount of evidence points to the existence of "genderlects" in spoken language.

Nearly all the verbal behavior studies however, have been on a younger population, more often than not, using college students as subjects. Some of the only research available with older subjects does not assess specific language usage, but rather the broader category of communicative behavior. Mysak (1959) and McGlone and Hollien (1963), measuring fundamental frequency and pitch variation in older men and women, provide data which supports the general contention of a sex-linked reversal in communicative behavior with aging.

Purpose of the Study

The purpose of the study is to determine if a role reversal/androgyny in later life manifests itself in language usage, with older males adopting patterns of speech which previous research has determined are more frequently used by younger females than males, and with older females adopting patterns of speech which previous research has determined are more frequently used by younger males and females.

Hypotheses

It is hypothesized that in direct contrast to the results of two studies using similar methodology and college students as

subjects (Swacker, 1975; Wood, 1966):

1. Older women are more verbose than older men when presented with a particular stimulus.
2. Older females use more numerals while older males precede their numerals with approximators.

Further, it is hypothesized that in contrast to the results of studies using different methodologies but claiming generalization to any speech situation, and using the non-aged as a population (Glesser, Gottschalk and John, 1959; Crosby and Nyquist, 1977):

3. Older men use more words of feeling or evaluative adjectives than do older women.
4. Older males use more modifiers or hedges than older females.
5. Older men use more self-referents than older women.

Definition of Terms

Gender roles. A gender role is defined by the societal expectations, psychologically and culturally defined, of the dimensions of masculine and feminine (Tresemer, 1975). A gender role may pertain, singly or in combination, to personal attributes, attitudes or behaviors. With the exception of direct quotes, gender is used in this study unless direct reference is intended to the distinction of male and female based on physiological characteristics.

Androgyny. A relative absence of gender is termed androgyny. An androgynous person sees the world in human terms, not sex or gender-typed terms (Johnson, 1977). "This definition of androgyny suggests a blending of masculinity and femininity that allows for behavioral and attitudinal variability rooted in individual differences and specific social contexts" (McGee and Wells, 1982).

Role reversal. A role reversal, as Gutmann (1978) defines it, is an exchange of gender roles which begins in middle age and reaches its zenith in later life. "An impressive turnover of sex-roles takes place, wherein there is some relinquishment of these personal qualities..., in exchange for those that were partialled out to the mate." (Gutmann, 1978).

Older/aged/elderly/late life. All these terms, for the purpose of this study, refer to an individual over the age of 65 years. This was, for some time, the legal age of retirement, and was therefore defined, without formal definition or intent, as "aged" by our lawmakers (Botwinick, 1978).

Verbosity. Verbosity may be defined in terms of amount of speech, either in time and/or in the number of content words, or semantic units (Kramer, Thorne and Henley, 1978; Swacker, 1975). This definition eliminates from consideration those non-semantic units of human utterance which might be termed verbal pauses, such as "Ah, Um, or Hmmm."

Approximators. Approximators are estimating elements used with numerals (Swacker, 1975). They precede numerals and generally are considered to serve as a sign that the user is indecisive or making a guess as to a specific quantity. Approximators include such words as about, nearly, or almost.

Words of feeling/evaluative adjectives. Words of feeling or evaluative adjectives refer to words which suggest a value judgement. They are either adjectives or adverbs of intensity which are interpretive and suggestive (Haas, 1979). They always modify a word which is in itself, non-evaluative. Words in this category include

pretty, gorgeous, heavenly, and glorious.

Modifiers or hedges. Modifiers or hedges are utterances which convey the sense that the speaker is uncertain about what s/he is saying, or cannot vouch for the accuracy of the statement (Lakoff, 1975). Such utterances are used in one of three ways. First, if the evidence is indeed in question, such as "John is kinda tall", when in fact John is neither really tall nor short. They are also used when one wishes to be polite, such as, "John is sorta short", when in fact John is very short, and one wishes not to insult him on a sensitive issue. Finally, hedges and modifiers are used when one is certain of the truth of the assertion and when there is no danger of offense, but rather an apology is being made for making an assertion at all.

Self referents. Self referents are those words which one may use to refer to him/herself. They include I, me, my, mine. Also included in this category are contractions such as I'll or I've in which the self referent is included.

Limitations of the Study

Generalizations from this study are limited for the following reasons:

1. This research does not include a consideration of the socioeconomic status, IQ, or particularly in the case of female subjects, a commitment to other than that of a homemaker. Neither is the present marital status taken into consideration, or in the presence of a spouse, his or her health and mental status.

2. Although subjects all have had at least two years of college, it is difficult to make comparisons with college students of

the last ten years. Clearly, a college degree in 1920 differed appreciably from one in 1970.

3. In all cases, a female interviewer was employed. Sex bias in response cannot be ruled out.

4. Speech samples were elicited using a formal stimulus, in this case, a picture. A more informal invitation to speak may have yielded different results.

CHAPTER 2

REVIEW OF SELECTED LITERATURE

The literature selected for review had to deal with:

1) studies of sex differences in language in an older population, and 2) those specific studies with which the results of this research will be generally compared.

Only two research studies seem to be presently available on the sex differentiated language usage in an over 65 population. The first is very limited and the second draws questionable conclusions from the data.

A pilot study (Nye, 1980) determined only that when presented with a picture stimulus to describe, older women are more verbose in their descriptions than older men, and that men use more approximators than do older females. Though the results are in direct opposition to the findings for a younger population (Swacker, 1975), the study is sufficiently limited to be of questionable use. The N is very small, only 22 subjects, and no note was made of education. It is thus difficult to compare Nye's sample with Swacker's college students and do more than suggest a possible difference.

The only other available study (Hartman, 1976) describes interviews with 12 men and 16 women born around the year 1900 and living in Maine. It too has serious problems. Data are simply not reported which might verify Hartman's claims. The study purports to

prove that older women's speech may be as easily classified into Lakoff's (1975) "female register" (defined as those aspects of women's language that embody the female role in our society; expressive, polite rather than informative, and non-assertive) as is that of a younger population. Instances of males using stereotypically female speech were attributed to regionalism. The data may indeed prove such a claim, but the fact that the data are not published for review, even in summary form, seriously weakens Hartman's claim.

Swacker's 1975 research, with which the data of this study will be compared, dealt with the sex differentiated speech of 34 informants, 17 male and 17 female, from California State University in Fresno. All were between 20 and 28 years of age, and all were full time students at the time of the interview. Informants were asked to look at three pictures by Albrecht Durer, and to describe what they saw, taking as much time as necessary, and to be as thorough as possible. Results showed that there were distinctions in verbosity, with men on the average speaking for longer intervals than women. Men used considerably more numerals in their descriptive passages. Women, on the other hand, preceded half of their numerals with approximators (...about six books); while only one male used a term of estimation. Although the N was rather small, and the interviewer was always female, thus allowing for a sex bias by the informant, Swacker's study is regularly used as a major argument in the literature on male verbosity (Key, 1972; Haas, 1979).

Wood (1966) presented 36 college students, 18 male and 18 female, with a series of photographs of the same person with different

facial expressions, and asked the respondents to describe the photos. There were quantitative differences in terms of verbosity, in that men consistently used more than twice as many words as did women in their descriptions. Further differences in speech style and word choice were determined:

"The analysis of the 90,000 word corpus of spontaneous speech...revealed distinctive styles of approach for men and women. A chi-square test showed (1) a correlation between the male utterances studied and an empirical style of speech, characterized by descriptions of observable features with objectively oriented concepts, and (2) a correlation between the female utterances studied and a creative style of speech, characterized by interpretive descriptions of associate images with predominantly connotative concepts." (Wood, 1966, p. 137).

Glesser, Gottschalk and John (1959) conducted a study assessing a normative sample of verbal behavior obtained on 90 subjects, 45 male and 45 female between the ages of 20 and 50. The sample was stratified on the basis of sex and intelligence using three levels corresponding to dull normal, high normal and superior IQ. A five minute speech sample was elicited from each subject by asking them to speak about any interesting or dramatic life experience that they had had. It was found that females used a significantly higher percentage of words implying feeling, emotion or motivation. They also made significantly more references to self and used more auxiliary words and negations. On the other hand, they used a relatively smaller percentage of words implying time, space, or quantity. All interviews were carried out by a male investigator. Although there was a tendency for sex differences to decrease in the highest IQ group, this was not the case in the variable of evaluative words, nor was it

statistically significant in any of the other variables. Although Glesser, Gottchalk and John's methodology differs appreciably from that used in the present study, their claims of generalizability make at least rough comparisons applicable.

Crosby and Nyquist (1977) conducted three separate studies in which samples of male and female speech were gathered and analyzed.

"In one of the studies, the speech samples were collected in the laboratory under controlled conditions. The other studies involved systematic observation in the real world, once at an information center and once at a suburban police station." (p. 315).

In the first study, subjects were 16 male and 16 female undergraduates at Boston University. Study Two consisted of 107 males and 90 females who made inquiries at an information booth at an urban municipal center. The third study examined three police personnel employed in a suburban police station in Connecticut and 45 male and 45 female clients. In each case, variables included the use of tag questions, hedges, polite expressions, and evaluative adjectives. Data presented proves the hypothesis that these measures of Lakoff's (1975) "female register" were used more frequently by females in two of the three cases. There were no significant differences based on sex of speaker in the second, or information booth study. This finding, according to the authors, is most likely due to 1) the fact that the interchanges were too short to show variation, or, more satisfactorily, 2) that the information-seeking interaction represented a well established ritual in our society, and would thus not discriminate between the sexes as well as would other speech elicitations. Again, the methodology differs appreciably from that used in this

study. Nevertheless, the authors claim a generalizability of their results which make at least a general comparison possible.

CHAPTER 3

RESEARCH PROCEDURES

The purpose of this study was to test if a role reversal/androgyny in later life manifests itself in verbal behavior. A survey technique was developed to determine:

1. Whether older males are more verbose than older females when presented with a specific stimulus.
2. Whether older females use more numerals while older males precede their numerals with approximators.
3. Whether older males use more words of feeling or evaluative adjectives than do older females.
4. Whether older males use more modifiers or hedges than older females.
5. Whether older males use more self-referents than older females.

Sampling Procedures

A volunteer sample was recruited from senior citizen centers and retirement communities in southern Arizona. The criteria for participation in this study were that informants be over 65 years of age, have completed at least two years of college, speak English, be physically able to see the stimulus picture and respond verbally to it, and display no obvious signs of senile dementia. All subjects were verbally informed about the project and were asked whether they

would be willing to participate. Subjects were further informed that responses would be kept anonymous and that the results of the study would be made public.

Procedure of Interview

Each subject was interviewed by the researcher, or by a female assistant. Total contact time ranged from 5 to 35 minutes, with the interview itself taking between 5 and 10 minutes.

1. Each subject was told that, "I'm involved in a study of the different ways that men and women speak. I would like to show you a picture and have you describe it into a tape recorder. Before I ask you to do that though, I need some information about you." Upon agreement, subjects were asked their age, education, marital status, and years married.

2. Subjects were then given standardized instructions:

"I am now going to show you a picture. I would like you to describe that picture into a tape recorder in such a way so that someone else could pick out this picture from a whole pile of pictures, just from your description alone. You may describe it in any way you'd like, taking as long as you'd like, mentioning anything in it you'd like. Once you begin, I will be listening to you, but I won't be able to respond to any questions you may have until you have completed your description. Do you have any questions now? Let me know when you are ready to begin."

Questions which signified confusion over the instructions were responded to with: "Just describe the picture I will show you, in any way you want. Just tell me what you see."

3. Picture descriptions were tape recorded, the tape being run until subjects signified that they were finished with their descriptions.

4. Upon completion of the description, any questions regarding the broad intent of the study were dealt with; its purpose, hypotheses, and the later availability of the results.

Instrument

The hypotheses were tested via the presentation of a picture of a fall scene in a rural setting. The picture was chosen in order that its appeal be neither stereotypically masculine nor stereotypically feminine, i.e., no hunting scenes nor kitchen advertisements. The stimulus picture is found in Appendix A.

Procedure of Analysis

Based upon a review of the raw data gathered in the pilot study (Nye, 1980), a scoring system was established for each hypothesis. The occurrence of each independent variable was assessed by direct counting from the tape by the principal investigator and two trained assistants. A sample description is reproduced in Appendix B. Scoring sheets (Appendix C) were devised to facilitate such an assessment. Each independent variable was assessed separately by each of the three scorers, and results were compared. When disagreement occurred, a given response was replayed for all three scorers until agreement in numbers was reached in the case of a numerical difference. When disagreement occurred as to whether a unit of speech qualified as an independent variable, the definition of that variable was reviewed, and the response replayed for all scorers until agreement was reached.

Much preliminary work was done to improve the reliability of the scoring system. A series of verbal samples from the pilot study

(Nye, 1980) were coded by the principal investigator and a cohort. On the basis of this experience, rules were developed for classifying words and phrases (see definition of terms). Then, a series of five new verbal samples was gathered and coded independently by the two scorers and compared to determine the amount of agreement. Agreement on classification averaged 98%. Subsequently, a third scorer was trained to code verbal samples until she was able to obtain an agreement of 98% with the coding of the other two.

Procedure of Statistical Analysis

Male and female usage of each independent variable was compared using the Student's t test (Isaac and Michael, 1981). An analysis of a single variable, personalization, was accomplished with the \bar{z} test (Isaac and Michael, 1981).

CHAPTER 4

RESULTS

This study was formulated to test whether a role reversal/ androgyny in later life manifests itself in verbal behavior via the adoption of speech characteristics assigned by researchers to a younger female population by older males, and the adoption of speech characteristics assigned by researchers to a younger male population by older females.

Demographic data

Table 1 characterizes the sample demographically.

TABLE 1 - DEMOGRAPHIC DATA

	MEN	WOMEN
age	\bar{X} 74.4	\bar{X} 71
education	\bar{X} 16.7	\bar{X} 16.4
years married	\bar{X} 42.9	\bar{X} 39.1

The age range for the 15 women was from 66 to 77 years, and for men from 65 to 80 years. One male had completed two years of college, seven held Bachelor's degrees, one completed a Master's, one an M.D., and five PhD's. Of the women interviewed, three had completed two years of college, seven held Bachelor's degrees, four completed a Master's, and one a PhD. All subjects had at one time been married.

Of the men, twelve are presently married, two widowed and one separated. Of the women, eight are presently married, five widowed and two divorced. Eleven men and seven women are presently in their first marriage. Nineteen subjects are interviewed in their homes, eleven in a more public place.

Measures of Verbosity

Hypothesis 1 states that older women are more verbose when presented with a particular stimulus. Table 2 shows the results when verbosity was compared for men and women, and further compares items noted per response for men and women.

The differences are attributable to chance between older men and women in verbosity as measured by words per response, time of response, or words per second ($p \geq .10$). Further, it may be noted that men and women did not differ significantly in the number of items noted in the stimulus picture. Appendix D lists the individual items which might have been pointed to in the picture and noted with a statement such as, "That is a..." Nor did within-group age variation appear to be a variable. A Pearson r correlation of age and verbosity measures yielded a coefficient insignificant at the .10 level.

TABLE 2 - MEASURES OF VERBOSITY & ITEMS PER RESPONSE

	Men	Women	t score
WORDS PER RESPONSE			
\bar{X} per response	167.4	179.1	
standard deviation	103.9	128.4	.282
range	38-443	67-543	
TIME OF RESPONSE			
\bar{X}	114.8	103.9	
standard deviation	60.3	50.9	.517
range	30-226	47-220	
WORDS PER SECOND			
\bar{X}	1.44	1.64	
standard deviation	.51	.46	1.10
range	.62-2.50	1.08-2.47	
ITEMS PER RESPONSE			
\bar{X}	11.9	13.6	
standard deviation	7.5	6.3	.652
range	3-29	3-26	

Numerals vs. Numerals with Approximators

Hypothesis 2 states that older females use more numerals while older males precede their numerals with approximators. Table 3 shows the results when the use of numerals and numerals preceded with approximators were compared for older men and women.

TABLE 3 - NUMERALS & APPROXIMATORS

	Men	Women	t score
NUMERALS			
\bar{X} per word	.011	.017	
standard deviation	.011	.014	1.25
range	0-15	0-10	
APPROXIMATORS			
\bar{X} per numeral	.299	.045	
standard deviation	.381	.139	2.04*
range	0-2	0-1	

* $p \leq .05$

Although the difference between male and female use of numerals per word is attributable to chance ($p \geq .10$), of those who used numerals, men were more likely to precede those numerals with approximators. Six of the men, or 40%, engaged in such verbal activity, while only 2 women, or 13%, did so. Further, unlike the results of Swacker's (1975) study which showed that only men engaged in counting behavior, such behavior took place four times in women's descriptions in the present study, and only once in men's.

Evaluative Adjectives

Hypothesis 3 states that older men use more words of feeling or evaluative adjectives than do older women. Table 4 shows the results when the use of evaluative adjectives was compared for older men and women.

TABLE 4 - EVALUATIVE ADJECTIVES

	Men	Women	t score
\bar{X} per word	.021	.016	
standard deviation	.022	.019	.447
range	0-10	0-9	

There was no statistically significant difference between older male's and older female's use of evaluative adjectives. Both sexes used them equally when use per word is averaged. Appendix E lists the ten most frequently used evaluative adjectives and notes their respective use. It is interesting to note that three of these words most usually associated with female speech (Lakoff, 1975) - lovely, pretty and gorgeous - were used more frequently by older males than older females.

Modifiers and Hedges

Hypothesis 4 states that older males use more modifiers and hedges than do older females. Table 5 shows the results when the use of modifiers and hedges was compared for older men and women.

TABLE 5 - MODIFIERS & HEDGES

	Men	Women	t score
\bar{X} per word	.028	.034	
standard deviation	.023	.023	.696
range	0-12	0-33	

Even though modifiers and hedges are almost always more than a single word in length, it was determined that they should be analyzed per word, rather than per response or per second. Such a measure makes generalization to different speech samples by a respondent possible, regardless of the length of such other samples. It may be seen in Table 5 that the difference between the use of modifiers and hedges per word for men and women was due to no more than chance ($p \geq .10$). Appendix F lists the ten most frequently used modifiers and hedges and notes their relative use by men and women.

Self-referents

Hypothesis 5 states that older men use more self-referents than older women. Table 6 shows the results when the use of self-referents was compared for older men and women.

TABLE 6 - SELF-REFERENTS

	Men	Women	t score
\bar{X} per word	.278	.304	
standard deviation	.022	.024	.229
range	0-6	0-30	

The difference in the use of self-referents by males and females is attributable to chance ($p \geq .10$). Ten women used references to self while describing the stimulus picture, and twelve men did so.

Presentation of Other Findings

Finally, it seems worthwhile to note several other aspects of speech in an older population as elicited by the stimulus picture. Either these areas have not been dealt with in terms of male/female differences, or the studies are sufficiently different to be incomparable.

1. Personalization. Participants might simply have chosen to describe the picture, but for some, subjective comments were necessary. A number of subjects chose to personalize their description with such comments as: "It reminds me of a cabin we owned in Wisconsin.", or, "This place looks like something that retired people could enjoy, I know I would.", or, "I used to have to rake up leaves, and I sure wouldn't want the job of raking up all of these." Of the men in the sample, 55% engaged in such basically non-descriptive behavior, while only 27% of the women did the same ($\bar{z} = 1.96$, $p \leq .05$).

2. Statements of wholes. A pilot study (Nye, 1980) suggested a tendency for men to make more statements of wholes than did women. For example, one can contrast statements such as: "Well, seemingly, it is a beautiful day.", or "It's a beautiful fall scene." With statements such as: "There's a rock wall approximately two feet high in the front.", or, "It has lots of pine trees along the side of the house." Ames and others (1954) compared Rorschach scores for older men and women and found that men make significantly more "whole"

responses than women. The present study failed to confirm the findings of either Ames and others (1954) or of Nye (1980). Males in the sample made 23 statements of wholes while women made 19 like statements ($t=1.34$, $p \geq .10$).

3. Direction of description. The final consideration deals with methods, or what may be best referred to as the direction of description. The picture seems to have been described in one of three ways. The respondent began at the perimeter, moved toward the center and ended at the perimeter; or, the describer skipped around with no pattern. A third possibility, chosen less frequently by either sex, was to begin at the center and move outward. Table 7 characterizes the sex differences of the sample.

TABLE 7 - DIRECTION OF DESCRIPTION

	Men	Women
out-in-out	47%	27%
in-out-in	40%	20%
skip around	13%	53%

Whether the fact that men prefer to describe the picture from out to in to out, while women prefer to skip around in their descriptions is significant of a difference in the way older men conceptualize things compared to older women, is difficult to determine. Nor is it possible to determine whether this descriptive behavior differs in a younger population without further research.

Summary

Results may be summarized as follows:

1. Hypothesis 1 not supported - no differences exist in measures of verbosity between older male's and older female's responses to a given stimulus.

2. Hypothesis 2 partially supported - a) no differences exist in the use of numerals between older men and women, but b) those older males who used numerals preceded same with far more approximators than did older women who used numerals.

3. Hypothesis 3 not supported - no difference exists in the use of words of feeling or evaluative adjectives between older males and females.

4. Hypothesis 4 not supported - no differences exist in the use of modifiers and hedges between older males and females.

5. Hypothesis 5 not supported - no difference exists in the use of self-referents between older men and women.

6. Presentation of other findings shows that:

a. Older males personalize their descriptions with subjective comments more frequently than do older females.

b. No differences exist in frequency of statements of wholes between older men and women.

c. Older men tend to describe the stimulus picture from outer edge to center to outer edge, while older women tend to describe the stimulus picture by skipping from item to item, seemingly regardless of position in the picture.

CHAPTER 5

DISCUSSION, IMPLICATIONS AND RECOMMENDATIONS

Discussion

Sex differentiated language usage in an older population was hypothesized to be in direct opposition to sex differentiated language usage in a younger population as assessed by previous research. The data demonstrate that, by and large, such differences do not exist. Swacker (1975) and Wood (1966) found younger men to be more verbose when describing a picture. The present study found no differences in verbosity with older men and women. Swacker (1975) found that younger males use considerably more numerals than females, but that younger females preceded one half the numerals used with approximators while only one male used a term of evaluation. The present study found that the use of numerals was approximately the same for older men and women, but that older men precede their numerals with approximators more frequently than do women. Glesser, Gottschalk and John (1959) and Crosby and Nyquist (1977) found that younger women use more words of feeling or evaluative adjectives than do younger men. The present study found no differences between older men and women. Crosby and Nyquist (1977) found that younger women use more modifiers and hedges than younger men. The present study found no differences between older men and women. Glesser, Gottschalk and John (1959) found that younger women use significantly more self-referents

in their speech than do younger men. The present study found no differences in the use of self-referents between older men and women. Of the five hypotheses, none were totally substantiated, and only one was partially proven, that of the more frequent use of approximators preceding numerals in older males' speech. Rather than finding a reversal of the differences found in those younger, no significant differences were found in language usage of older men and women; excepting approximators. Two possible explanations exist for these findings in nonsupport of the hypotheses.

First, it must be considered that the lack of significant differences in male and female speech as measured by the dependent variables is the result of a methodological error. Conceivably, the instrument chosen was not sensitive enough to discriminate differences which do indeed exist. Further, it must be taken into account that several possible confounding variables were not controlled. Sex of the interviewer, in each case female, for example, may have accounted for sex bias on the part of the respondents. Subjects were recruited from retirement communities and from senior citizen recreation centers in southern Arizona, which might account for very real differences in socioeconomic status. Nor was previous work history taken into consideration, a factor which, especially for women, may have had an impact on speech patterns. In short, methodological problems cast at least some doubt on the findings.

The other possible explanation for the finding of nonsupport of the hypotheses is a theoretical one. In relation to Gutmann's role reversal theory, perhaps speech is not one of the roles that reverses

with aging. Perhaps the gender transitions which take place in an aging populace are more measurable in other behaviors than language. Or, perhaps, rather than speech being an avenue for role reversal, it may represent a move toward androgyny. Taken in light of Sinnott's theory of role blurring, such a contention gains credence. Although no more can be said as a result of the present study, than that, for the most part, older men do not use language differently than older women based on the variables measured, extrapolation of the data leads one to suggest that language usage of older men and women may demonstrate a personality change via a move toward androgyny.

How then could such an androgynous speech pattern be accounted for? A list of possible explanations must begin with those of the two theorists who most prominently address the subject of personality changes in later life - D. L. Gutmann and J. D. Sinnott. Both Gutmann's (1978) theory of parental imperative, and Sinnott's (1977) explanation of a general flexibility related to successful aging and therefore a longer life span, have been dealt with in some detail in the earlier discussion of gender role transitions. The reader is referred to that discussion. There are other possible explanations, or at the least, other contributing factors which must also be noted. The following paragraphs briefly address those factors.

Is it possible that a move toward androgyny which this research may demonstrate, might be viewed in terms of homeostasis? One may consider the power within a relationship, particularly those of older generations, as being kept in equilibrium. It is known that men age faster than women, explained by Bowman and Engel (1959) as

testosterone, the major contributor to male fragility, increasing ones metabolism. Males begin to lose sensory modes earlier than women, as the data of Spoor (1967) demonstrate with hearing level and frequency, and Thumbfart, Plattig and Schlicht (1980) with smell and taste. Men traditionally have been the job holders and are therefore more vulnerable to the depression which so many find inherent in retirement. Perhaps then, one can view the American couple of the last one or two generations as a dyad in which the male partner functioned as the possessor of power. If one views the power distribution in terms of equilibrium, and one accepts that earlier aging in the male may be characterized by a loss of power, it follows that the female member of the dyad assumes a more powerful role, thus maintaining the equilibrium. It is not difficult to carry this idea through to a general elderly population. Although women far outnumber men - Botwinick (1978) quotes AOA publication number 2, 1971, with a ratio of 140 women for every 100 men over the age of 65 - those women generally still function with older men in their lives, whether the associations are intimate or superficially social in nature. Perhaps then the androgynous verbal behavior reflects a power shift.

A biochemical explanation must also be considered. Is it possible that the absence of sex differentiated language usage in old age can be explained in terms of hormonal changes? Komnenich (1974), in an intriguing study, has correlated verbal behavior in women with phases of the menstrual cycle. She concludes that there is a measurable increment in speech rate during the menstrual and luteal phases. Further, she notes an increase in content words, defined as

words which carry semantic meaning; and disfluencies, repetitions or interjections of sounds, syllables, words, or phrases. She quotes research by Benedek and Rubenstein which found consistent psychological changes related to phases of the menstrual cycle. For example, passive receptive tendencies were related to progesterone production, and active heterosexual strivings with estrogen production. Men and women are characterized by, even defined by, different hormonal makeup. As people age, the production of hormones changes too. Riley and Foner (1968) note that in women, the total estrogen level decreases, coincident with menopause from the third to the sixth decade, and then remains at a fairly even level. In males, there is no significant change in total estrogens, although specific hormones of the estrogen group do decrease. Androgen levels decrease in both sexes. Gonadotropin levels in urine rise in women, reaching a peak 15 to 19 years after menopause, and then decline. Even so, some are present even in the very elderly. Finch (1974) relates the latter to control by the hypothalamus, the preoptic region, and the amygdala. He further notes a substantial decrease in the production of adrenal cortex hormones, cortisol and pregnanediol, in males. If hormonal production can influence the verbal behavior of women during the menstrual cycle, is it not possible that a like biochemical explanation can be applied to androgyny of speech in the aged?

Implications

There now exists empirical evidence which might be interpreted to support the contention of personality changes in later years as being manifested in androgynous verbal behavior. Four explanations

have been considered, which may singly, or in combination, account for such a phenomenon. Attention has been drawn to a population which is often ignored in research in areas other than gerontology. Language has been examined, for it is by this uniquely human use of words and phrases that we come to know each other. For those in the helping professions, it is necessary that they know the one they profess to help. The present study then, is significant in that it suggests that we as helpers, may know that older men are likely NOT to be the same in their presentation as younger men, and that aging women may well constitute a very different communicative population than their less-aged counterparts. There are further implications in terms of social encounters, business dealings, and family relationships. It is clear that the results of this research suggest more than just a trivial sociolinguistic phenomenon. Instead, it must be viewed as yet another avenue towards the goal of understanding that which is humanness - young or old, male or female. For to begin to understand each other, we begin to understand ourselves.

Recommendations for further Study

The following recommendations are derived from the results of this study and the conclusions thereof.

1. Instrument modification must be considered. It is all too possible that the results would have been different had the speech stimulus been a more informal invitation to speak, rather than the formal request for description of a picture.

2. Given the great range for the majority of the dependent variables, it is recommended that a replication of this study employ

a larger N. Clearly, noting that the standard deviation exceeded the mean with several of the variables, a skewed distribution exists.

3. In the present study, sex bias by respondents must be considered. Had the data collection been done by interviewers of both sexes, bias would not be a consideration.

4. For a replication of this study, the ideal would be a control group of younger subjects with the same education as the older sample. Clearly, this would be difficult to accomplish, as the educational system itself has changed so over the years. Nevertheless, such a comparison group would make the findings much more meaningful.

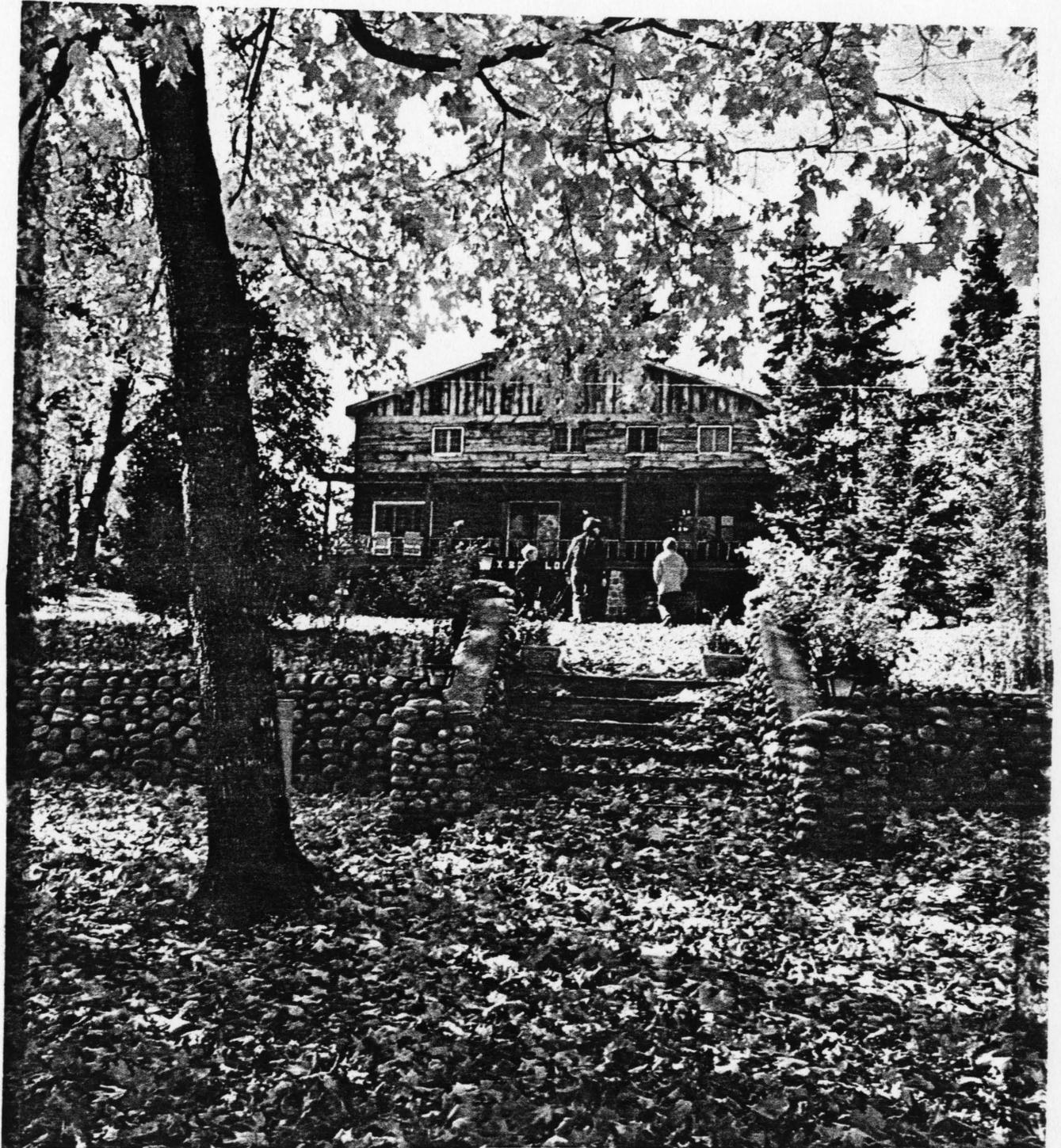
5. In the present study, the variable of education was controlled by sampling only those with at least two years of college. The demographic data demonstrate that the mean education level surpassed that of the subjects in studies referred to for comparison. Women particularly, are unrepresentative of a general elderly population, as they are very highly educated for their cohort group. It is recommended that a replication of this study control more carefully for education. It is further suggested that other educational levels be sampled, as they may well show different results.

6. Further research into the subject of verbal behavior of older males and females should take into account factors other than gender, age and education. The present study is limited by the presence of several possibly confounding variables that have not been controlled. They include socioeconomic status, previous employment, IQ, or in the presence of a spouse, his or her physical and mental health. All these variables could very well have implications in male and female speech.

7. Finally, and perhaps most importantly, it must be recommended that further research be conducted in the area of sex differentiated language usage in an older population. That population is growing, becoming a more visible force in our society - economically, socially and politically. They can no longer be ignored. Attention must be paid to them, and part of that attention must focus itself on communicative behavior, for it is by language, first and foremost, that we meet one another, learn of one another, and interact with one another.

APPENDIX A

PICTURE STIMULUS



APPENDIX B

SAMPLE DESCRIPTION

SAMPLE PICTURE DESCRIPTION

Well, this is beautiful picture, taken on a fall day, probably somewhere in Wisconsin. There's a large log structure in the center of the picture, possibly a lodge. There's a stone wall here in the foreground, with six steps leading up to the lodge. There are lots of trees, several large oaks with golden leaves and some pine trees on the side. The ground is covered with fall leaves that have fallen from the trees. I wonder if anyone has to rake up all of those leaves. I know I wouldn't want that job. There are three people in front of the lodge, a man in a blue jacket, a child with a pink jacket, and another child with dark clothing. Let's see. There's a red garbage can behind this large oak tree here in the foreground, and some flower pots on the top of the steps. The lodge, it must be a lodge 'cause it's so large, the lodge has two stories with windows, four of them, in the top story. There's a porch which runs around the front with two chairs where one could sit and enjoy the beautiful scenery. It's a nice day with a blue sky with some white clouds. It's really lovely. I wouldn't mind being in a place like that. I think that's about all I could say about it.

APPENDIX C

- 1) SCORING SHEET, BLANK
- 2) SCORING SHEET, SAMPLE

SCORING SHEET

SUBJECT NUMBER _____

TIME OF RESPONSE _____

WORDS PER RESPONSE _____

ITEMS PER RESPONSE _____ (list below)

NUMERALS PER RESPONSE _____

APPROXIMATORS PER RESPONSE _____ (list below)

EVALUATIVE ADJECTIVES PER RESPONSE _____ (list below)

MODIFIERS & HEDGES PER RESPONSE _____ (list below)

SELF-REFERENTS PER RESPONSE _____

PERSONALIZATION, i.e. subjective comments

yes _____ no _____

STATEMENTS OF WHOLES PER RESPONSE _____

DIRECTION OF DESCRIPTION _____

SCORING SHEETSUBJECT NUMBER 31TIME OF RESPONSE 96 sec.WORDS PER RESPONSE 187

III
 III III III III III III III III III III III
 III III III III III III III III III III III
 III II

ITEMS PER RESPONSE 12 (list below)

man, 2 children, pink jacket, full leaves,
 oak tree, stone wall, house or lodge,
 blue sky, forest, chairs, pine trees,
 clouds

NUMERALS PER RESPONSE 3APPROXIMATORS PER RESPONSE 2 (list below)

about, almost

EVALUATIVE ADJECTIVES PER RESPONSE 6 (list below)

pretty, nice, lovely, pretty, beautiful, beautiful

MODIFIERS & HEDGES PER RESPONSE 4 (list below)

could be, I think, possibly, looks like

SELF-REFERENTS PER RESPONSE 3

PERSONALIZATION, i.e. subjective comments

yes X no

STATEMENTS OF WHOLES PER RESPONSE 2

DIRECTION OF DESCRIPTION *skipped around*

APPENDIX D

ITEMS IN THE PICTURE

ITEMS IN THE PICTURE

1. fall leaves on the ground
2. fall leaves on the tree
3. grass in front of the structure
4. large oak tree
5. red can
6. stone wall
7. steps
8. stone hand rail
9. lanterns (x2)
10. flower pots
11. pink flowers
12. hedge
13. flowers in front of hedge
14. person
15. person
16. person
17. red jacket
18. blue pants (x3)
19. blue jacket
20. brown jacket
21. pine trees
22. bush or shrub
23. small oak tree
24. cedars
25. blue sky
26. clouds
27. electric wires
28. structure
29. 1st story
30. windows in 1st story
31. door
32. 2nd story
33. 4 windows in 2nd story
34. basement
35. stone pillar
36. window in basement
37. letters on front of house
38. porch or veranda
39. lawn chairs
40. railing around porch
41. peaked roof
42. lantern at top of stone rail

APPENDIX E
TEN MOST FREQUENTLY USED
EVALUATIVE ADJECTIVES

TEN MOST FREQUENTLY USED EVALUATIVE ADJECTIVES

<u>evaluative adjective</u>	<u>male use</u>	<u>female use</u>
beautiful	8	10
nice	6	9
lovely	4	3
pretty	3	1
attractive	1	2
good	3	0
happy	0	2
glorious	1	1
gorgeous	2	1
wonderful	3	1

APPENDIX F

TEN MOST FREQUENTLY USED

MODIFIERS & HEDGES

TEN MOST FREQUENTLY USED MODIFIERS AND HEDGES

<u>modifier or hedge</u>	<u>male use</u>	<u>female use</u>
could be	4	16
looks like	14	14
probably	12	6
I think	4	14
appears to be	5	0
I imagine	1	3
possibly	3	1
looks to be	3	1
might be	1	3
perhaps	1	2

REFERENCES

- Ahammer, I. M. "Social Learning Theory as a Framework for the Study of Adult Personality Development", in P. B. Baltes and K. W. Schaie (Eds.) Life-Span Developmental Psychology: Personality and Socialization. New York: Academic Press, 1973.
- Ames, L. B. and others. Rorschach Responses in Old Age. New York: Harper & Bros., 1954.
- Bauman, M. "Two Features of Women's Speech," in B. L. DuBois and I. Crouch (Eds.) The Sociology of the Languages of American Women - Papers in Southwest English IV. San Antonio: Trinity University, 1976.
- Bollinger, R. L. "Geriatric Speech Pathology," Gerontologist, Vol. 14, No. 3 (1974), pp. 217-221.
- Botwinick, J. Aging and Behavior. New York: Methuen and Co., Ltd., 1978.
- Bowman, K. M. and Engel, B. "Some Current Trends in Problems of the Aged," Geriatrics, March (1959), pp. 163-173.
- Brim, O. G., Jr. "Male Mid-Life Crisis: A Comparative Analysis," in B. Hess (Ed.) Growing Old in America. New Brunswick, N. J.: Transactions, Inc., 1976.
- Cool, L. E. "Role Continuity or Crisis in Later Life? A Corsican Case," International Journal on Aging and Human Development, Vol. 13, No. 3, (1981), pp. 169-181.
- Crosby, F. and Nyquist, L. "The Female Register: An Empirical Study of Lakoff's Hypotheses," Language and Society, Vol. 6, (1977), pp. 313-322.
- Finch, C. E. "Aging and the Regulation of Hormones: A View from Oct. 1974," in V. J. Cristofalo, J. Roberts and R. C. Adelman (Eds.) Explorations in Aging. New York: Plenum Press, 1974.
- Fischer, J. L. "Social Influences in the Choice of a Linguistic Variant," in D. Hymes (Ed.) Language in Culture and Society. New York: Harper and Row, 1958.

- Garcia, G. N. and Frosch, S. F. "Sex, Color and Money: Who's Perceiving What?" Or Men and Women: Where Did All the Differences Go (To)," International Journal of the Sociology of Language, Vol. 17 (1976), pp. 83-90.
- Glesser, G. C., Gottschalk, L. A. and John, W. "The Relationship of Sex and Intelligence to Choice of Words: A Normative Study of Verbal Behavior," Journal of Clinical Psychology, Vol. 15 (1959), pp. 182-190.
- Gutmann, D. L. "Aging Among the Highland Maya: A Comparative Study," in B. L. Neugarten (Ed.) Middle Age and Aging. Chicago: University of Chicago Press, 1968.
- _____, "Parenthood: Key to the Comparative Psychology of the Life Cycle?" in N. Datan and L. Ginsburg (Eds.) Life-Span Developmental Psychology. New York: Academic Press, 1975.
- _____, "Individual Adaptation in the Middle Years: Developmental Issues in the Masculine Mid-Life Crisis," Journal of Geriatric Psychiatry, Vol. 9 (1976), pp. 41-59.
- _____, "The Cross Cultural Perspective: Notes Toward a Comparative Psychology of Aging," in J. Birren and K. W. Schaie (Eds.) Handbook of the Psychology of Aging. New York: Van Nostrand Reinhold Co., 1977.
- _____, "Personality Transformations in the Post-parental period: A Cross Cultural View," Meeting of the American Association for The Advancement of Science, Washington, D.C., 1978.
- Haas, A. "Male and Female Spoken Language Differences: Stereotypes and Evidence," Psychological Bulletin, Vol. 86 (1979), pp. 616-626.
- Hartman, M. A. "A Descriptive Study of the Language of Men and Women Born in Maine Around 1900 as it Reflects the Lakoff Hypotheses in 'Language and Women's Place'," in B. L. DuBois and I. Crouch (Eds.) The Sociology of the Language of American Women - Papers in Southwest English IV. San Antonio: Trinity University Press, 1976.
- Hess, B. B. "Sex Roles, Friendship and the Life Course," Research on Aging, Vol. 1 (1979), pp. 494-515.
- Isaac, S. and Michael, W. B. Handbook in Research and Evaluation. San Diego: EdITS Publ., 1981.

- Isenhardt, M. W. "An Investigation of the Relationship of Sex and Sex Role to the Ability to Decode Nonverbal Cues," Human Communication, Vol 6, No. 4 (1980), pp. 309-318.
- Johnson, M. "Androgyny and the Maternal Principle," School Review, Vo. 86 (1977), pp. 50-69.
- Jolly, E. J. and O'Kelly, C. G. "Sex-role Stereotyping in the Language of the Deaf," Sex Roles, Vol. 6, No. 2 (1980), pp. 285-292.
- Jung, C. G. Modern Man in Search of a Soul. New York: Harcourt Brace, 1933.
- Key, M. R. "Linguistic Behavior of Male and Female," Linguistics, Vol. 88 (1972), pp. 15-31.
- Kommenich, P. Hormonal Influences in Verbal Behavior in Women. PhD Dissertation, University of Arizona, 1974.
- Kramer, C. "Perceptions of Female and Male Speech," Language and Speech, Vol. 20, No. 2 (1977), pp. 151-161.
- Kramer, C., Thorne, B. and Henley, N. "Perspectives of Language and Communication," Signs, Vol. 3, No. 3 (1978), pp. 638-651.
- Labov, W. The Social Stratification of English in New York City. PhD Dissertation, University of Arizona, 1966.
- Lakoff, R. Language and Woman's Place. New York: Harper and Row, 1975.
- Leonard, O. "The Older Spanish-speaking people of the Southwest," in E. Youmans (Ed.) The Older Rural Americans. Lexington: University of Kentucky Press, 1967.
- Lowenthal, M. F. "Toward a Sociopsychological Theory of Change in Adulthood and Old Age," in J. E. Birren and K. W. Schaie (Eds.) Handbook of the Psychology of Aging. New York: Van Nostrand and Reinhold, 1977.
- Lowenthal, M. F., Thurner, M. and Chiroboga, D. Four Stages of Life. San Francisco: Jossey-Bass, 1975.
- Luchsinger, R. and Arnold, C. E. (Eds.) Voice - Speech - Language. Belmont, Calif.: Wadsworth Publishing Co., Inc., 1965.

- McGee, J. and Wells, K. "Gender Typing and Androgyny in Later Life," Human Development, Vol. 25 (1982), pp. 116-139.
- McGlone, R. E. and Hollien, H. "Vocal Pitch Characteristics of Aged Women," Journal of Speech and Hearing Research, Vol. 6 (1963), pp. 164-170.
- Mysak, E. D. "Pitch and Duration Characteristics of Older Males," Journal of Speech and Hearing Research, Vol. 2 (1959), pp. 46-54.
- Neugarten, B. L. "Personality and Aging," in J. E. Birren and K. W. Schaie (Eds.) Handbook of the Psychology of Aging. New York: Van Nostrand and Reinhold, 1977.
- Neugarten, B. L. and Gutmann, D. L. "Age-sex Roles and Personality in Middle Age: A Thematic Apperception Study," in B. L. Neugarten (Ed.) Middle Age and Aging. Chicago: University of Chicago Press, 1968.
- Neugarten, B. L., Havighurst, R. J. and Tobin, S. S. "Personality and Patterns of Aging," in B. L. Neugarten (Ed.) Middle Age and Aging. Chicago: University of Chicago, 1968.
- Neugarten, B. L. and others. Personality in Middle and Late Life. New York: Atherton Press, 1964.
- Nye, N. K. "Sex Differences in Language in a Well Geriatric Population," unpublished student paper, University of Arizona, 1980.
- Peck, R. C. "Psychological Developments in the Second Half of Life," in B. L. Neugarten (Ed.) Middle Age and Aging. Chicago: University of Chicago Press, 1968.
- Puglisi, J. T. and Jackson, D. W. "Sex Role Identity and Self Esteem in Adulthood," International Journal of Aging and Human Development, Vol. 12, No. 2 (1981), pp. 129-139.
- Quain, B. Fijian Village. Chicago: University of Chicago Press, 1948.
- Riley, M. W. and Foner, A. Aging and Society, Volume One: An Inventory of Research Findings. New York: Russell Sage Foundations, 1968.
- Scott, K. P. "Perceptions of Communication Competence: What's Good for the Goose is Not Good for the Gander," Women's Studies International Quarterly, Vol. 3, No. 2-3 (1980), pp. 199-208.

- Self, P. A. "The Further Evolution of the Parental Imperative," in N. Datan and L. Y. Ginsburg (Eds.) Life-Span Developmental Psychology: Normative Life Crises. New York: Academic Press, 1975.
- Simmons, L. The Role of the Aged in Primitive Society. New Haven: Yale University Press, 1945.
- Sinnott, J. D. "Sex-role Inconsistency, Biology and Successful Aging: A Dialectic Model," Gerontologist, Vol. 17 (1977), pp. 459-463.
- Spencer, P. The Samburu: A Study of Gerontocracy in a Nomadic Tribe. Berkeley: University of California Press, 1965.
- Swacker, M. "The Sex of the Speaker as a Sociolinguistic Variable," in B. Thorn and N. Henley (Eds.) Language and Sex: Difference and Dominance. Rowley, Massachusetts: Newbury House Publishing Inc., 1975.
- Thumbfart, W., Plattig, K. H. and Schlicht, N. "Smell and Taste Thresholds in Old People," Zeitschrift For Gerontologie, Vol. 13 (1980), pp. 158-188.
- Treas, J. "Aging and the Family," in D. Woodruff and J. Birren (Eds.) Aging: Scientific Perspectives and Social Issues. New York: Van Nostrand and Reinhold, 1975.
- Treasemer, D. "Assumptions Made About Gender Roles," in R. Millman and R. Kanter (Eds.) Another Voice. Garden City: Anchor Books, 1975.
- Troll, L. E. and Parron, E. M. "Age Changes in Sex Roles Amid Changing Sex Roles: The Double Shift," Annual Review of Gerontology and Geriatrics, Vol. 2 (1981), pp. 118-143.
- Warshay, D. W. "Sex Differences in Language Style," in C. Safilios-Rothschild (Ed.) Toward a Sociology of Women. Lexington, Massachusetts: Xerox College Publishing Co., 1971.
- Wershow, H. "Aging in the Israeli Kibbutz," Gerontologist, Vol. 9 (1969), pp. 300-304.
- Wood, M. "The Influence of Sex and Knowledge of Communication Effectiveness on Spontaneous Speech," Word, Vol. 22 (1966), pp. 112-137.

- Yap, D. "Aging in Under-developed Countries," in C. Tibbitts and W. Donahue (Eds.) Social and Psychological Aspects of Aging: Aging Around the World. New York: Columbia University Press, 1962.
- Zimin, S. "Sex and Politeness: Factors in First and Second-language Use," International Journal of the Sociology of Language, Vol. 27 (1981), pp. 35-38.
- Zimmerman, D. H. and West C. "Sex Roles, Interruptions and Silences in Conversation," in B. Thorne and N. Henley (Eds.) Language and Sex: Difference and Dominance. Rowley, Massachusetts: Newbury House Publishing, Inc., 1975.
- Zube, M. "Changing Behavior and Outlook of Aging Men and Women: Implications for Marriage in Middle and Later Years," Family Relations, Vol. 31 (1982), pp. 147-156.