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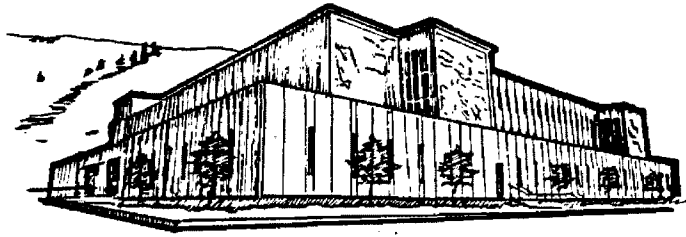
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Is ASL Gender-Biased?

A Study of Whether Deaf School Children
Can Recognize Gender-Bias in Their Language

By

Rebecca Anne McIntosh

B.A., University of North Carolina at Chapel Hill, 1988

Presented in partial fulfillment of the requirements

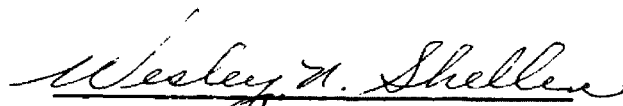
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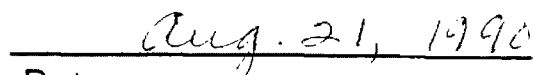
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Sign Language is "the noblest gift God has given to deaf people."

-George W. Veditz
Seventh President of the
National Association of the Deaf

Is ASL Gender-Biased? A Study of Whether Deaf School Children can Recognize Gender-Bias in Their Language (69 pp:)

Director: Wesley N. Shellen, Ph.D. 

This study was designed to investigate American Sign Language in efforts to determine if school-age deaf children were receptive to gender bias and would recognize such in their sign language.

Subjects were shown a five minute video that exhibited either a male or a female signer signing twelve essays in American Sign Language. Subjects then gave their interpretations of essays by responding to a gender bias questionnaire that asked the subjects their opinions of how the essays were signed. Another questionnaire was administered to determine the subjects' attitudes toward women (AWS scale). A final questionnaire was used to gather demographic information and to ascertain if the subjects knew the purpose of the study.

Analysis revealed that the subjects are conservative in their views toward women. The female subjects were more conservative than their male deaf counterparts. Results also show that issuing the AWS Scale prior to viewing the videotape did sensitize those subjects to the gender-bias scale.

This study indicates that the use of sexism in American Sign Language is evident in the deaf subjects; however, the demographic questionnaire does not show that the subjects are aware that they respond to gender bias in their language. Questions are raised about the use of sexism being fostered by the Deaf's concepts of men and women's roles. Suggestions are included to help reduce the Deaf's need to differentiate between the sexes in occupations. Further research needs to be conducted to find the factors that cause conservatism in the deaf, in comparison to their hearing counterparts.

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Chapter One

1. Introduction

The purpose of this thesis is to explore American Sign Language (ASL) in efforts to determine if deaf school-age children can recognize sexist or gender-biased signs which are being employed by ASL signers. The significance of this study is illustrated by stating that any prejudicial signs that may be in the deaf's everyday communication can be implicitly discriminating toward certain ethnic backgrounds and genders (Lederberg, et. al., 1986; Jolly & O'Kelly, 1980; Murphy-Berman & Jean, 1981). Also, while some have criticized ASL because the language includes sexist signs, no study has been able to substantiate gender-bias in ASL or any of the other six sign languages practiced in the United States and Canada. ASL is purported to be the third most widely used language in the United States and Canada today, and is the preferred communication system of more than seventy five percent of deaf American adults (Rainer, Altschuler, and Kallman, 1969; Quigley & Paul, 1984).

Review of Literature

1.1. Sign Language and Its History

Some anthropologists speculate that sign language may be the oldest form of communication (National Information Center on Deafness, 1987). Scientifically, sign language has been dated back to 530 A.D. where Benedictine monks in Italy took vows of silence (Gannon, 1981). Sign language was also known to be used in classical Rome and Greece during

the Middle Ages (National Information Center on Deafness, 1987). Communication was so essential to the monks that they needed to develop a system to communicate their daily needs. From these monks sign language was passed down through the years. Later, a Benedictine monk named Pedro Ponce de Leon used sign language to teach deaf students. Then, sign language drifted to France. From the French Sign Language came American Sign Language which is the natural language of some two million Americans, roughly one percent of the United States population (Luey & Per-Lee, 1983). ASL is not the first sign language used in the United States. American Indian tribes including the Sioux, Cheyenne, Blackfoot, and the Kiowa were reported to use sign language by the fifteenth century (National Information Center on Deafness, 1987, 15).

Sign languages, used in the United States and Canada, can be grouped into three general classifications: (1) ASL, (2) Manually Coded English and (3) Oral English. ASL is the one distinct sign language that is used. The variety of Manually Coded English systems are heavily reliant on ASL vocabulary and have been developed to represent English manually. Manually Coded English includes languages such as Fingerspelling, Seeing Essential English (SEE I), Signing Exact English (SEE II), Signed English, Linguistics of Visual English (LOVE), and Pidgin Sign English (Quigley & Paul, 1984). Oral English is the normal every-day English spoken by hearing people with cued speech. A short elaboration on each of the manually coded English systems and cued speech is provided below.

1.1.1. Fingerspelling

Fingerspelling is a sign language system that consists of the twenty-six different handshapes that represent each letter in the English alphabet. Using this alphabet to spell out words and sentences is called fingerspelling.

1.1.2. Seeing Essential English

The first manually coded English sign language system was Seeing Essential English (SEE1). SEE1 is a graduate degree project that began in 1962 by a deaf son of deaf parents named David A. Anthony in England. SEE1 was first published in 1971 (National Information Center on Deafness, 1987, 17). This sign language is set up on three criteria- sound, spelling, and meaning which are used to determine what the sign will be for a particular word. A sign may be used when two of the three criteria are the same:

Thus, "I have a **right** to a lawyer," "Turn **right**," and "That's **right**," would all be signed the same (same sound and spelling, different meaning), but different signs would be used for **RITE** and **WRITE** (same sound, different spelling and meaning) (National Information Center on Deafness, 1987, 17).

1.1.3. Signing Exact English

Signing Exact English (SEE 2) was developed in 1972 and is another

manually coded English system. Developed by "Gerilee Gustason, a deaf teacher who lost her hearing at the age of five, Donna Pfetzing, the mother of a deaf daughter, and Esther Zawolkow, the daughter of deaf parents" (National Information Center on Deafness, 1987, 17). Again, this language conforms to the English language and has roughly seventy different affixes, such as -ment, -ly, and -pre to conform to the exact English grammar.

1.1.4. Signed English

Signed English is a sign language that follows the syntax and linguistic structure of English. Signed English borrows the signs from ASL and puts these signs into English word order. This manually coded English system was developed in 1973 by a group of educators at Gallaudet University named Harry Bornstein, Karen L. Saulnier, and Lillian B. Hamilton.

1.1.5. Linguistics of Visual English

A fifth manually coded English language is Linguistics of Visual English. Better known as L.O.V.E., this sign language incorporates much of ASL vocabulary and English vocabulary. The potential meaning is realized when signed in English syntax. L.O.V.E. began to be used with some regularity in 1969. The developer of this sign language decided there was "an immediate need to develop a statement of philosophy and principles by which to work toward the development of a rational visual English" (Wampler, 1971).

1.1.6. Pidgin Sign

The last manually coded English system is Pidgin Sign. Pidgin Sign is used when two or more individuals do not share the same sign language but still wish to communicate with each other. It is simply a merging of some characteristics from two languages, mostly English and ASL.

1.1.7. Cued Speech

Cued Speech, known as an Oral system, was developed by Dr. R. Orin Cornett at Gallaudet University in 1966. This is a sign system where eight different handshapes placed in four different locations around the lips on the face and throat "cue" its reader to what the speaker is saying. Cornett argued that this visible representation of syllables and phonemes would assist the deaf people to learn spoken language and to speak and lipread better. It is designed to take some of the guesswork out of lipreading. For example, a speaker may be saying "blue vase" and will fingerspell the letter "B" and "V" near his/her lips to let the receiver know that the first word begins with "B" and the second begins with "V." The cued "V" takes the guesswork out of "vase" because "V" is the voiced sound but the letter "F" has the same lip movement only it is a fricative or unvoiced. To a lipreader, there is no distinction between "F," "V," "S," "Z" and other letters. Cornett makes it clear that cued speech is a tool and was never intended to be a substitute for sign language (Gannon, 1981, p. 334-335).

1.1.8. International Gesturing

A newer sign system called International gesturing has emerged in the United States but is so new there is almost nothing published about it. For example, in July, 1989 a deaf convention held at Gallaudet University was a conglomeration of deaf signers from almost every country imaginable. Since Russian sign is different from Peruvian, French, Spanish, Italian and others, International gesturing was used to further understanding. International gesturing is mostly pantomiming.

Discussion so far has explored the various sign systems used in the United States. Few deaf people use these manually coded English sign language systems because these systems are not natural languages of the deaf. The focus of this study is on ASL, the natural language of the Deaf.

1.2. ASL As a Language

This study will examine only the sign language known as ASL (also called Ameslan). A discussion of ASL as a language follows.

Much previous debate concerned whether or not ASL is a bona fide language (Schlesinger & Manir, 1978). The syntax of ASL is not bound, as is the syntax of spoken languages (Hoffmeister & Shettle, 1983). Language has been defined as "a code whereby ideas about the world are represented by a conventional system of signals for communication"

(Bloom & Lahey, 1978, p. 4; Quigley & Paul, 1984). A more elaborate definition reads:

A language is a system of relatively arbitrary symbols and grammatical signals that change across time and that members of a community share and use for several purposes: to interact with others, to communicate their ideas, emotions, and intentions, and to transmit their culture from generation to generation (Baker & Cokely, 1980).

ASL is defined as a visual-gestural, rule-governed manual communication system composed of signs used as a language with a grammatical structure of its own (Stokoe, 1960; Quigley & Paul, 1984; Bellugi & Kilma, 1972; Wilbur, 1979; McAnally, Rose & Quigley, 1987). A person knowing ASL and English is considered bilingual. Claiming deaf people are a linguistic group but not necessarily a linguistic community, Evans & Falk argued that ASL has a small, undeveloped vocabulary because in comparison to the spoken English language, some ASL signs can be further divided into subcategories in English. For example, in English there are many words or synonyms for "fat" like "corpulent," "obese," "hefty," and "enormous." In ASL, the sign for all of these words would be "fat." The sign itself would be the same for all varieties of "fat," but, the facial expressions accompanying the sign would be distinct which enable signers to differentiate between the different types of "fat." ASL differs from English in two aspects- grammar and form (Baker & Cokely, 1980; McAnally, Rose, & Quigley, 1987). ASL's own grammar is not derived from

English. Instead, ASL grammar is different from English and currently, there is no written form of ASL. Thus, when tests are administered to deaf students in the form of English and the deaf fail to do well on these tests, hearing and deaf evaluators say that the deaf have poor reading skills. The average reading level of English (hearings' native language) for most deaf persons is that of fourth grade (Maxwell, 1985; Cornet, Knight, Reynolds, & Williams, 1979). The reading level of the average hearing person has been estimated to be that of a sixth or seventh grade level. Some deaf educators and other educators of the deaf have argued that spoken English is not the language of the deaf while English is a second language to the deaf. And, part of the reasons why deaf persons' reading level may be lower than that of the hearing counterparts is due to native ASL versus English syntax .

"... There has been no research to demonstrate that it is possible to speak one language (English) and simultaneously sign a language with a different morphological and syntactic structure (ASL)" (Woodward & Allen, 1987, p. 5). Compounding this problem is the fact that "many teachers [of the deaf] still do not know the difference between ASL and English, nor do they tend to use ASL as their primary method of classroom communication" (Woodward & Allen, 1987, p. 9). Before 1960, many thought ASL was simply manually coded English (Schein, 1989). With modern knowledge contradicting this viewpoint, it is evident that the language proficiency of deaf people should be assessed in the deaf's natural language as this thesis is. Oddly, there are no books printed in ASL {except those books teaching ASL} and few hearing instructors are proficient at ASL. ASL

usually has to be learned informally through usage.

ASL is constantly evolving by the influence from English and the culture of Deaf people. ASL is still influenced by its French antecedents; however, ASL's history shows the changes that have been brought about since ASL's introduction to America in 1917.

1.3. History of ASL

In her article, "Arbitrariness and Iconicity: Historical Change in American Sign Language," Frishberg (1975) examined the historical process of ASL from its origin in old French to the present. Frishberg discovered a strong tendency for signs to change in the direction of arbitrariness, rather than maintaining a level of iconicity. The history of ASL dates back to a Frenchman named Abbe de l'Epee (1712-1789). He became acquainted with two deaf-mute [sic] twin sisters. In efforts to help them, Abbe developed a system of signs for instructional purposes in the education of the deaf. Thereafter, Abbe developed the language into a more sophisticated system which more closely resembled the vocabulary and syntax of the then-present day French. Abbe Sicard (1742-1822) continued de l'Epee's system. This sign language made its way to the United States by way of teacher Lauren Clerc, a former deaf student of Sicard. During the early part of the 19th century, an American from the United States, Thomas Hopkins Gallaudet went to France to learn new methods of teaching the deaf. In Paris, France, Gallaudet met Clerc and

brought him back to the United States to teach sign language to students in a residential school for the deaf in Hartford, Connecticut. While signs have changed and been refined over the years, in the beginning, many signs were crude to represent or mimick the object, idea or concept trying to be conveyed. Some of these signs probably would be considered "sexist" by today's popular definition. Some ASL signs are gender-specific because back in Thomas H. Gallaudet's day, hardly any occupations were held by non-traditional sexes. Thus, some signs have masculine features to them when representing a job traditionally held by men while women's occupational signs carry feminine characteristics. It is important to note that the teachers of ASL were l'Epee, Clerc, Sicard, and Gallaudet all of whom were men!

1.4. Gender Bias in English and ASL

"Sexism" is defined as words or actions that arbitrarily assign roles and/or characteristics to humans based on sex (Guidelines for Nonsexist Use of Language in NCTE Publications). Lott (1987) explained the three components of sexism according to the general behavior theory: (1) negative attitudes towards women, such as prejudice; (2) reinforced beliefs that assume women are inferior (these beliefs are well-known and socially validated); and (3) discrimination which may take the form of exclusion, distancing, or other avoiding behaviors. Studies have shown that just because a subject engages in sexist language behavior, he or she may not be aware of sexism or he or she may not agree with the NCTE's

definition.

Murdock and Forsyth (1985) found some subjects may **not** think a language is biased even if the words used violate the Guidelines on gender biased language promulgated by the American Psychological Association. This empirical study was conducted on normal hearing persons. Their research illustrated that not all subjects agree that sexist language is masculine-biased language; however, Murdock and Forsyth's study indicated that gender-biased language forms are perceived to be sexist. Their study noted "males more than females suggested that the issue of sexually biased language was trivial" (p. 47). The relationship between culture {social norms and rituals} and language {common set of symbols used for communication} is such that there is a "lack of saliency" demonstrated in the English language (Sniezek & Jazwinski, 1986). While the use of "man" and "he" may be correct as far as the grammatical rules are concerned, the interpretation of "man, he" is not generic (Sniezek & Jazwinski, 1986; Miller & Swift, 1976). Generic "he" is defined as being understood by both sexes that "he" stands for both men and women. While this may be the intention, studies have shown that this is not the fact. Studies indicated that "he" is usually sex specific more than "he" is designated as generic "he" (Sniezek & Jazwinski, 1986; Miller & Swift, 1976).

Lakoff (1973) took a different approach to gender-biased language.

She found that indeed there are differences between the way women speak versus the way men speak. She argued that the language women used was in fact inferior to the language men used. She based this argument on the characteristics of women's language being "weak," "trivial," and "hesitant." Lakoff advocated that women change their speech to resemble the speech of men and use more "forceful" words, such as statements reinforcing men's position of strength in the real world. Lakoff's point is that the stereotypes about females are reality and that the man's language is better and that women should adopt the male's way of talking. In their separate works, speech communication researchers Carol Gilligan (1982) and Julia T. Wood (1986) recognized that there is a difference between males and females and that those differences could stem from differences in the thinking processes of males and females. Wood (1986) extended Gilligan's argument by illustrating that males process by differentiation while females process by relatedness. In simpler terms, females viewed individuals and information in general in their world through webbing or networking while males categorized or "cubby-holed" people and other information to make sense out of their world (Wood, 1986). All of these studies dealt with gender bias language with hearing populations. As more research is being published about the Deaf, more research is beginning to turn to the needs of the deaf in the field of speech communication. There has been little research conducted to explore gender-bias in the Deaf's language.

Only one published study has examined the problem of gender-bias in the language of the deaf (Jolly & O'Kelly, 1985). To begin research in this area, pioneers Jolly and O'Kelly analyzed one aspect of sex differences (sex-role stereotypes) in American Sign Language (ASL). Using descriptive methodology, Jolly and O'Kelly asserted that ASL reflects some imbalances between its treatment of males and females. Jolly & O'Kelly further stated that the language changes when a movement arises that impacts the deaf community. In its treatment of males and females, the authors concluded that ASL "did not create these imbalances, but it does reflect them... and subtly reinforces them" (1985, 292).

A study conducted by Virginia Murphy-Berman and Paula J. Jean studied "The Factors Affecting the Gender Connotations of Language for the Deaf Child" (1981). These authors pointed out that replacing generics (man, he) with more neutral terms limited the masculine imagery in female and male hearing-impaired students. As Furth (1966) mentioned that the hearing-impaired are more dependent on visual imagery to make sense out of the world, Murphy-Berman and Jean (1981) forecasted that the deaf would process words presented with concrete referents differently from words that were considered more abstract. Cook and Rossett (1975) surveyed deaf women and found them to be more traditional in their perception of sex role attitudes than hearing women. The authors' research illustrated a widening gap between perceived sex role attitudes of deaf women and hearing peers. Fifty five percent of the deaf women

agreed that "Mothers should stay home and take care of the house and children." Only twenty three percent of the hearing peers agreed with their deaf counterparts. According to Cook and Rossett, isolation from the world's mainstream has prevented deaf women from making alterations in their judgments of appropriate and inappropriate attitudes for males and females. Also in their study, Cook and Rossett asserted that "the deaf female endures a situation defined by both her deafness and her femaleness" (1975, p. 341).

Evans & Falk (1986) found the meanings of sign language "to be cryptic, situated, and context-bound" especially if the deaf have colonized and banded together into their own distinguished community where one learns to be deaf, act deaf, and share a sense of pride about deafness (p. 204). This may explain Cook & Rossett's (1975) findings discussed in the previous paragraph. "Many deaf people consider themselves bound together by their use of sign language, shared educational experiences, high rate of endogamous marriage, and membership in deaf organizations" (Grace, 1985, p. viii).

In their study, Murdock and Forsyth (1985) hypothesized that persons who would recognize gender-biased language would be those persons who possess an androgynous orientation towards sex roles and/or have positive attitudes toward females as measured by the Attitudes Toward Women Scale (Spence, Helmreich, & Stapp, 1975). Using this assumption, deaf

people should not be attuned to gender-biased language. With the information about American Sign Language (mostly developed by men) and deaf culture from the deaf literature (written by hearing people in the English language) coupled with research from the speech communication field on gender biased language (with hearing people used as subjects) and women's issues (still being suppressed), three research questions are posed.

1.5. Research Questions

The pertinent question is does or does not gender-bias exist in ASL? This question cannot be answered easily. In efforts to gain more information leading to an answer to this question, a more answerable question exists: Will deaf school-age children recognize gender-biased utterances in American Sign Language? The crucial issue here is not to assume that the signs for males and females automatically make a sign gender-biased. To clarify communication, the deaf need to make clear their thoughts and sign language allows the signer any graphic representation needed to make his or her point clear to the receiver. However, labeling the sex each time there is a sex-specific pronoun, sex role, or sex-specific occupation in the language could possibly have an effect on the deaf culture or vice-versa; the culture may be nurturing the sign language with sexist terms and signs.

The second research question is to what extent does the deaf

school-age children's ability to recognize gender bias in American Sign Language correlate to their attitudes toward women? This assessment is made with the aid of the Attitude Toward Women's Scale (AWS) (Spence, Helmreich, Stapp, 1975). If the school-age deaf children recognize that women have jobs that are traditionally masculine jobs and argue that a "female" sign needs to be included so that the reader of the sign knows a female has this position, then the deaf children will hold more conservative views on women and women's roles in today's society.

The third research question is to what extent will the Attitude Toward Women's Scale (AWS) sensitize the subjects to gender-bias, if any? The subjects may or may not be able to articulate the concept of gender-bias and still be able to recognize this in their language. If the subjects are more sensitized by the AWS, then the deaf children will produce more liberal views of women and women's roles in today's society indicating their awareness of gender bias.

Deaf persons have been fighting against misconceptions about their cognitive abilities for centuries. Some sources quote Aristotle as saying that speech was the main mode for thought and education and if one could not hear, then one could not learn. "Those who are born deaf become senseless and incapable of reason" (Aristotle). This thought made its way into the classical world (Bender, 1970). Bender found that the great philosopher had been misquoted and that the above quotation appears in

many texts lifted out of its original context. Her research found that Aristotle really meant Deaf people needed a communication mode other than speaking. Deaf people and American Sign Language have become more acceptable and been given credit for more sophistication since Aristotle's day. But still, as in Aristotle's day, some misconceptions exist. As Aristotle pointed out, speech is not the answer for some Deaf people. For this reason, this researcher thinks it is appropriate to give the tasks in ASL due to syntax differences between the hearing people's natural language, English and the deaf people's natural language, ASL. Language stimuli in this current study were presented to the subjects in American Sign Language in efforts to cut down on misinterpretation. All materials and procedures were changed to ASL syntax and words translatable to ASL signs for easier understanding and comprehension. English syntax translations are available in the appendices. To ensure understanding of deaf terminology, definitions and a brief description of the terms being used in this study is provided.

1.6. Definitions

1.6.1. For the sake of clarity, **deafness** is being defined as a hearing loss classified as profound when the hearing threshold level is 90 dB HL (ANSI, 1969) or more. Profound hearing loss is such that amplification devices do not aid the deaf person much.

1.6.2. The word **Deaf** is capitalized to identify that one is inculturated

into the deaf world, culture, and way of life. Deaf means having membership in the Deaf community. A person may be deaf but a Deaf person is one who shares a commonality {being deaf, pride in deafness, using ASL, and not engaging in Oral English} with others who are deaf. It is not a subculture. **It is Deaf culture.**

1.6.3. Hearing-Impaired is defined as "any degree of hearing loss" (Shames & Wiig, 1986, 617). It is estimated that almost fifteen million Americans have partial hearing impairments that interfere with communication and that each year, some three to four thousand American babies are born profoundly deaf (Shames & Wiig, 1986, 416). See Table A for audiogram that shows categories of degree of hearing loss.

1.6.4. Sexism is a popular term to mean any behavior, conditions, or attitudes that foster stereotypes of social roles based on sex, especially against women or **gender-bias** "an inflectional form showing membership in a subclass" (Webster's Ninth New Collegiate Dictionary, 1983).

Chapter Two

METHODS

2.1. Subjects

There were twenty eight hearing impaired and deaf volunteer subjects in the study. The subjects were recruited from a state deaf and blind school located in the Northern Rocky Mountains. Eighteen were males and ten were females. The mean age for the males was 14.8, ranging from thirteen to seventeen years old and the mean age of the females was 16.3, ranging from fourteen to nineteen . Two subjects were children of deaf parents and one was a child of hearing impaired parents.

2.2. Materials

The materials used for the study include one ten minute videotape, a gender-bias and gender-neutral questionnaire about the videotape, a short version of the Attitudes Toward Women Scale (AWS) (Spence, Helmreich, & Stapp, 1973), and a final questionnaire asking the subjects what they perceived the study to be about and to obtain demographic information.

2.2.1. Videotape

2.2.1.1. Description of Videotape

A color videotape was made up of twelve essays signed by both a male and female signer in American Sign Language. The videotape has four essays that are intentionally gender-biased, four

essays that are gender-traditional and four essays that are gender-neutral. An example of a **gender-biased** essay is a masculine occupation with a female pronoun in the essay, such as "Cindy, the pilot." An example of of a **gender-neutral** essay involves a feminine occupation with a person whose sex the subjects cannot tell, such as "The secretary" An example of a **gender-traditional** essay is a feminine occupation with a feminine pronoun, such as "Lisa, the nurse." (See Appendix A for copies of the essays).

2.2.1.2. Pilot Research to Develop Videotape

A pilot questionnaire was devised to determine which occupations were be considered masculine, feminine, or neutral. Twenty-seven occupations, identified through brainstorming, were chosen for inclusion in the pilot questionnaire. Respondents were asked to circle on a five-point Likert scale the degree to which they thought each occupation was a masculine or feminine occupation. (See Appendix B.) A hearing person employed at Model Secondary School for the Deaf at Gallaudet University in Washington, D.C. distributed the pilot questionnaire to ten hearing impaired and deaf males and ten hearing impaired and deaf females. All subjects were between the ages of fifteen and seventeen years old.

The hearing person gave signed instructions in ASL to each subject individually to complement the written English syntax instructions on the

questionnaire. Before distribution, the questionnaires were color-coded for gender identification. The means and modes of the twenty seven occupation questionnaires were calculated. (See Appendix C). According to the subjects' responses, the two most masculine and feminine occupations were chosen for inclusion in essays. Two occupations chosen to be most masculine were "pilot" and "president." The two feminine occupations were "nurse" and "secretary." The researcher created three essays for each one of the four occupations so that a pronoun (masculine, feminine, and neutral) could be used when referring to the occupation. In essence, twelve essays have been created. Each essay included only one specific occupation so that the results could be distinctly identified. (See Appendix A.) No theme runs through any of the essays and they are not tied together or related in any way.

Pronoun >>>>>	Masculine	Neutral	Feminine
Occupation			
Masculine	Essay A Essay B	Essay E Essay F	Essay I Essay J
Feminine	Essay C Essay D	Essay G Essay H	Essay K Essay L

Figure 1: Description of Essays in Relation of Occupation and Pronoun

2.2.1.3. Selection of Signers for Videotape

Two signers fluent in ASL were used to sign the essays on the videotapes. The female signer, age twenty nine years, learned ASL as the child of deaf parents. The male signer is thirty one years old and has been signing for six years. The signers are Montanans which is helpful because they are more familiar with deaf Montanan idioms and sign in the same dialect that most of the deaf subjects use. After making the videotape, the signers saw themselves and each other. Both signers agreed that the signings were accurate representation of the essays in ASL and were consistent with one another.

2.2.2. Gender-bias Questionnaire

After viewing the essays, the subjects were asked to fill out a twelve statement questionnaire that asked the subjects questions about the way in which the signers signed the essays in the videotape. (See Appendix D.) Coding of the signed essays for sexism was assessed by using a four-point Likert Scale with the lowest point, one, being "strongly agree," two being "agree," three as "disagree" and the highest point, four, being "strongly disagree." Reversed polarity was used in scoring the biased versus unbiased questions but on the questionnaire itself, all statements looked alike between biased and non-biased items. One statement was designed for each of the twelve essays and these statements alternated between being sexist and non-sexist.

2.2.3. Attitudes Toward Women Scale- Short version

All subjects completed the Attitudes Toward Women's Scale (AWS) Short Version to classify the participants as either traditional or liberal in their attitudes toward the female's role in society (Spence, Helmreich, and Stapp, 1972). One half of the participants viewing the male signer and one half of the participants viewing the female signer were given AWS **before** viewing the videotape and the other half were given AWS **after** viewing the videotape. The AWS is a fifty-five item questionnaire which asks respondents to agree or disagree with the statements on a four-point Likert scale ranging from "agree strongly" being a one, "agree" as two, "disagree" as three, and "strongly disagree" as four. All statements relate to women's roles and rights in the home and in careers as well as dating and sexual etiquette. In the shorter version of this scale, Spence, Helmreich, and Stapp determined a twenty-five item questionnaire (1973) extracted from the original fifty-five item AWS scale was as reliable. The short version yields the same results as the long version statistically with almost perfect correlation. Correlations between the 55-item test and the 25-item test taken by students resulted in *r*s of .968 for males and .969 for females. Without jeopardizing validity and reliability, the 25-item AWS was administered. The AWS Short version was changed from English syntax to ASL syntax for easier comprehension for the deaf subjects. See Appendices E and F for copies of the test in English syntax and ASL syntax.

2.2.4. Demographic Questionnaire

After viewing the videotape and completing the questionnaires, each participant was asked to complete a final questionnaire which ask for demographical informaton such as subjects' sex, age, if the subjects were hearing impaired or deaf, if their parents were hearing impaired or deaf, and if they signed in ASL, SEE, or both. Then, the subjects briefly wrote down what he or she thought that the researcher was trying to do in this study. (See Appendix G). As a final avenue to judge the subjects' sensitivity to women and recognition of gender-bias in American Sign Language, this exercise was intended to show evidence of the subjects' level of awareness to women and gender-bias.

2.3. Procedures

The researcher will randomly assigned the volunteer subjects to be in either the group to see the male signer or the female signer. Then, the subjects were further randomly divided so that every other subject was given the AWS scale before viewing the videotape or after viewing the videotape. Thus, there were four groups of subjects: Group 1 = Male Signer & AWS Before Videotape; Group 2 = Male Signer & AWS After Videotape; Group 3 = Female Signer & AWS Before Videotape; and Group 4 = Female Signer & AWS After Videotape.

The groups 1 and 3 completed the AWS scale in deaf syntax before viewing the videotape. The researcher collected the AWS and showed the

video. After viewing the video, the researcher then administered the gender-bias questionnaire signing in ASL that this is a questionnaire that asks some questions about how the male or female signer signed the essays. When this task is completed, the researcher asked the subjects to fill out the final demographic questionnaire. (See Appendix G.)

Groups 2 and 4 viewed the videotape before taking the AWS scale and followed the same procedures as the groups 1 and 3 who took the AWS scale prior to viewing the videotape except that the AWS was administered to these two groups immediately after the gender-bias questionnaire. Finally, the demographic questionnaire will be administered to groups 1 and 3.

The subjects were be informed that participation in this study was voluntary and if anyone wanted to discontinue the study at any time, all he/she had to do was raise his/her hand and let the researcher know and that person could be excused. None of the subjects asked to be excused.

2.4. Design and Analysis

The data from the gender bias questionnaire was analyzed in a 2x2x6 mixed factorial designed with repeated measures on the last factor (sex of signer X counterbalanced presentation of the AWS scales X video scenerio types).

Figure 2 illustrates the design of the study.

	Traditional Scenarios		NonTraditional Scenarios		Neutral Scenarios	
	Masculine Occupation	Feminine Occupation	Masculine Occupation	Feminine Occupation	Masculine Occupation	Feminine Occupation
	Masculine Pronoun	Feminine Pronoun	Masculine Pronoun	Feminine Pronoun	Masculine Pronoun	Feminine Pronoun
Male Signer:						
AWS Before						
AWS After						
Female Signer:						
AWS Before						
AWS After						

The results from this analysis are presented in chapter Three. Results are used to discuss (1) the subjects' perception of gender bias as a function of the video scenarios they witnessed; (2) the effect of the gender of the signer on perceived gender bias of the scenarios; and (3) whether the order of administration of the AWS interacts with the treatments in the study.

The AWS scores were correlated with total gender bias scores of each subject to determine whether conservative or liberal attitudes toward male and female roles explain the likelihood of perceiving gender-biased language in American Sign Language.

Chapter Three

RESULTS

3.1 Introduction

The data for this research consisted of twenty eight subjects' evaluations of three questionnaires. One questionnaire was purely a fact-finding questionnaire that asked for demographic information and if the subjects could articulate what the purpose of the study was. A second questionnaire evaluated the subjects' attitudes toward women (Spence, Helmreich, & Stapp, 1973). The third questionnaire was developed for use in the present study. This twelve-statement questionnaire examined gender-bias in six types of scenarios:

- | | |
|------------------------|--|
| Nontraditional- | (1) Feminine occupation/Masculine pronoun |
| | (2) Masculine occupation/Feminine pronoun |
| Traditional- | (3) Feminine occupation/Feminine pronoun |
| | (4) Masculine occupation/Masculine pronoun |
| Neutral- | (5) Feminine occupation/Neutral pronoun |
| | (6) Masculine occupation/Neutral pronoun |

The subjects the use of gender signs in the ASL renditions of the scenarios as presented by a male or female signer. Predictions were made about whether subjects would be traditional or non-traditional in their attitudes toward women.

One subject's data included a missing gender-bias item. An average of the existing eleven statements was used to fill in the missing

item to complete the data. All returned questionnaires were usable.

The dependent variables used in this study were the subjects' ratings on the twelve statement gender-bias questionnaire. An analysis of variance of the data was used to determine if there was a difference in the gender bias ratings due to the timing of the administration of the Attitude Toward Women's Scale (instituting the AWS before the subjects viewed the videotape and instituting the AWS after subjects viewed the videotape). The ANOVA assessed if the sex of the signer made a difference in how the subjects answered the gender-bias questionnaire. Finally, further ANOVA analyses were conducted to see if there were any significant differences due to the sex of the subjects on the AWS or gender-bias questionnaire.

Pearson's Correlation and the F-test were performed in testing the research questions. Pearson's Correlation was done between the twelve statement gender bias questionnaire and AWS. No significant correlation resulted ($r = -.0334$). Overall, results show that the subjects as a population are quite homogeneous with little variance (standard deviation 1.8) among them. The results show that the subjects are conservative in their views toward women when compared to the hearing subjects the AWS was originally administered to in Murdock & Forsyth's study (1985). See Table 1.

Table 1
 Comparison Between Attitudes Toward Women (AWS) Means
 in the Present Study with Norms from Murdock & Forsyth (1985)

	Males	Females
Deaf & Hearing-Impaired Subjects (Present Study)	30.37	30.18
Normal Hearing Subjects (Spence, Helmreich & Stapp, 1973)	44.80	50.26

3.2 Analysis of Variance

A 2 X 2 X 6 analysis of variance (ANOVA) was performed to determine the influence of the sex of the signer (male versus female) and the timing of the AWS administration (before versus after videotape) and the six scenarios. The means and standard deviations in all treatment groups are reported in Table 2.

No significant in gender bias ratings occurred as a result of the sex of the signer. In other words, it did not matter to any of the two groups whether they saw the male or the female signer. There was a significant difference in gender bias ratings between whether the AWS was given before or after the video. The analysis showed that subjects who took the

AWS before seeing the videos were significantly higher in their ratings of gender-bias within the scenarios.

Table 2
Means and Standard Deviations
of Four Treatment Groups

	Mean	Standard Deviation
Group 1- (Male signer and AWS Before)	10.17	1.47
Group 2- (Male signer and AWS After)	8.57	1.81
Group 3- (Female signer and AWS Before)	10.00	1.85
Group 4- (Female signer and AWS After)	10.14	10.7

The analysis showed that the subjects differed significantly in their perception of gender bias within the six scenarios types. Overall, the subjects evaluated scenario 3 (Feminine occupation/feminine pronoun), scenario 4 (Masculine occupation/masculine pronoun), and scenario 5 (Feminine occupation/neutral pronoun) are more liberal. See Figure 3. When breaking the subjects down into gender, there is a difference in the way the males and females perceived gender-bias. (See Figure 4). When examining Figure 4, the higher the score means the subject was in agreement with the gender bias which reflects conservatism. The lower scores reflect more liberalism. See Figures 5 and 6 for a breakdown of male and female subjects based on whether they viewed the videotape

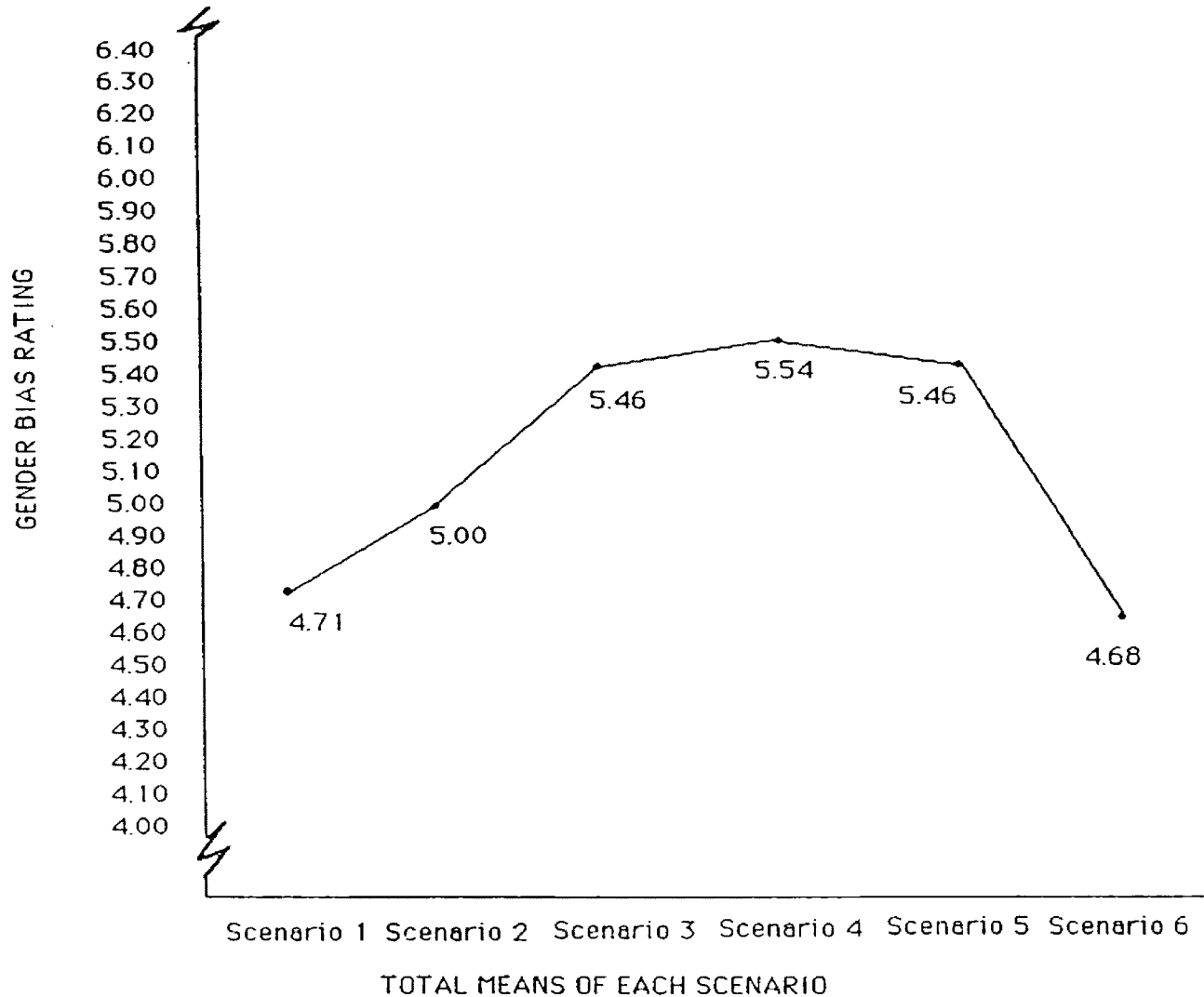
before or after AWS. The females disapproved of Scenario 1 which was Feminine occupation/masculine pronoun (4.40) more than the males disapproved (4.89). Masculine occupation/feminine pronoun was disapproved more by the females (4.30) than the males (5.39). Feminine occupation/feminine pronouns were approved by the females (5.90) more than the males (5.22). The female subjects were more conservative about masculine occupation/masculine pronouns (6.40) than the males (5.06). Feminine occupation/neutral pronoun were more agreeable with the males (5.61) than the females (4.50). Finally, Masculine occupation/neutral pronoun were agreed with more by the females at 4.78 than the males at 4.50. Thus, females are liberal with females staying in feminine occupations and males staying in masculine occupations. The males, on the other hand, are more open to nontraditional occupations being occupied by members of the opposite sex.

While the sex of the signer made no difference in the ratings of gender bias, the sex of the subjects did. It was found that females were more traditional in their responses to the gender-bias questionnaire and the AWS. Further probing found that the females were more traditional in their responses to the statements on the gender-bias questionnaire which asked about females in non-traditional occupations than were the males. Also, females were more in agreement than males that men and women should stay in traditional roles. (See Figure 4). Males tended to be more liberal than females about the occupations with neutral pronouns. The females being more conservative in their views of women coincides Cook

& Rossett's study (1975) that deaf women hold more traditional sex role attitudes than their hearing peers.

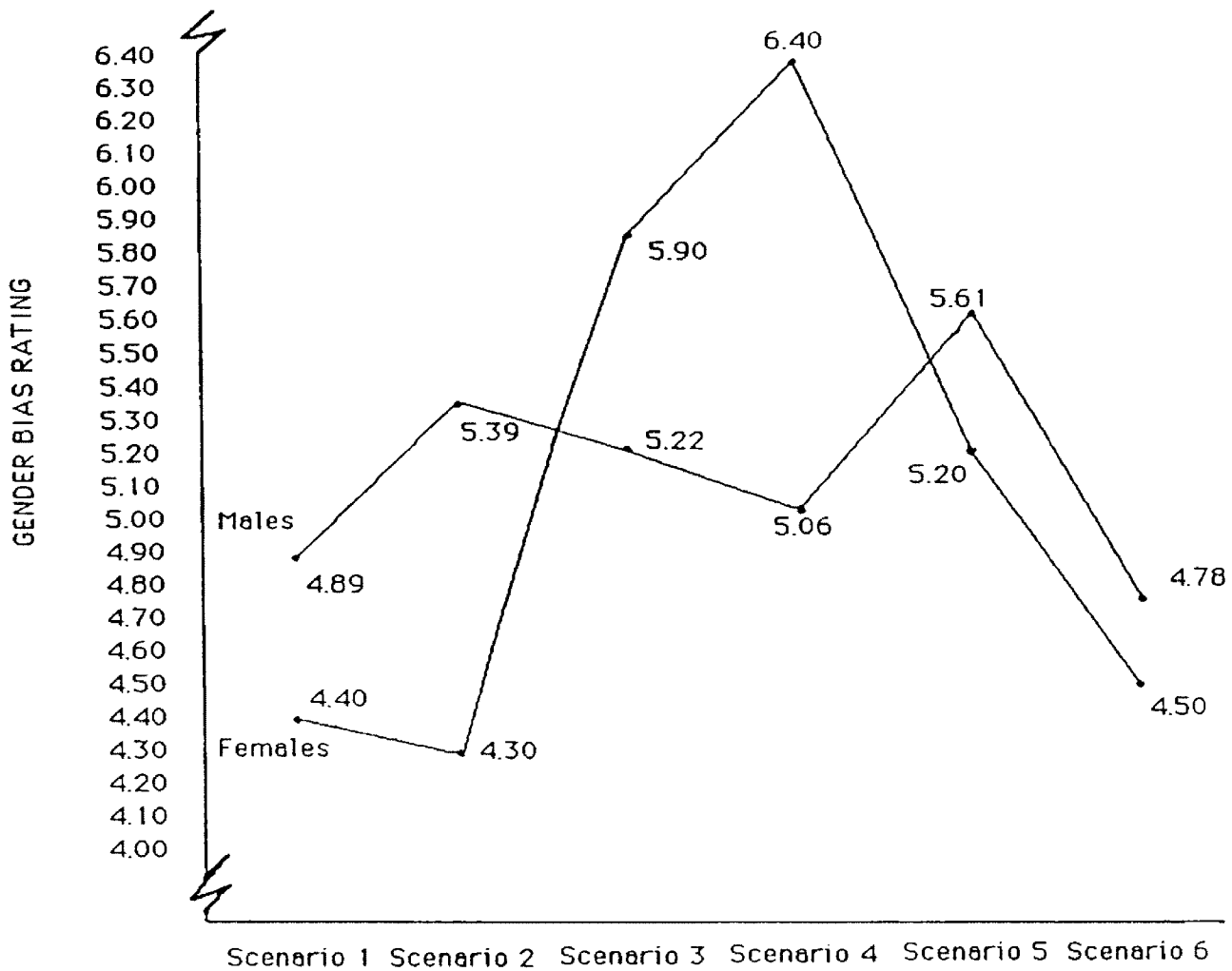
FIGURE 3

THE MEANS OF GENDER-BIAS RATINGS
EACH OF THE SIX SCENARIOS



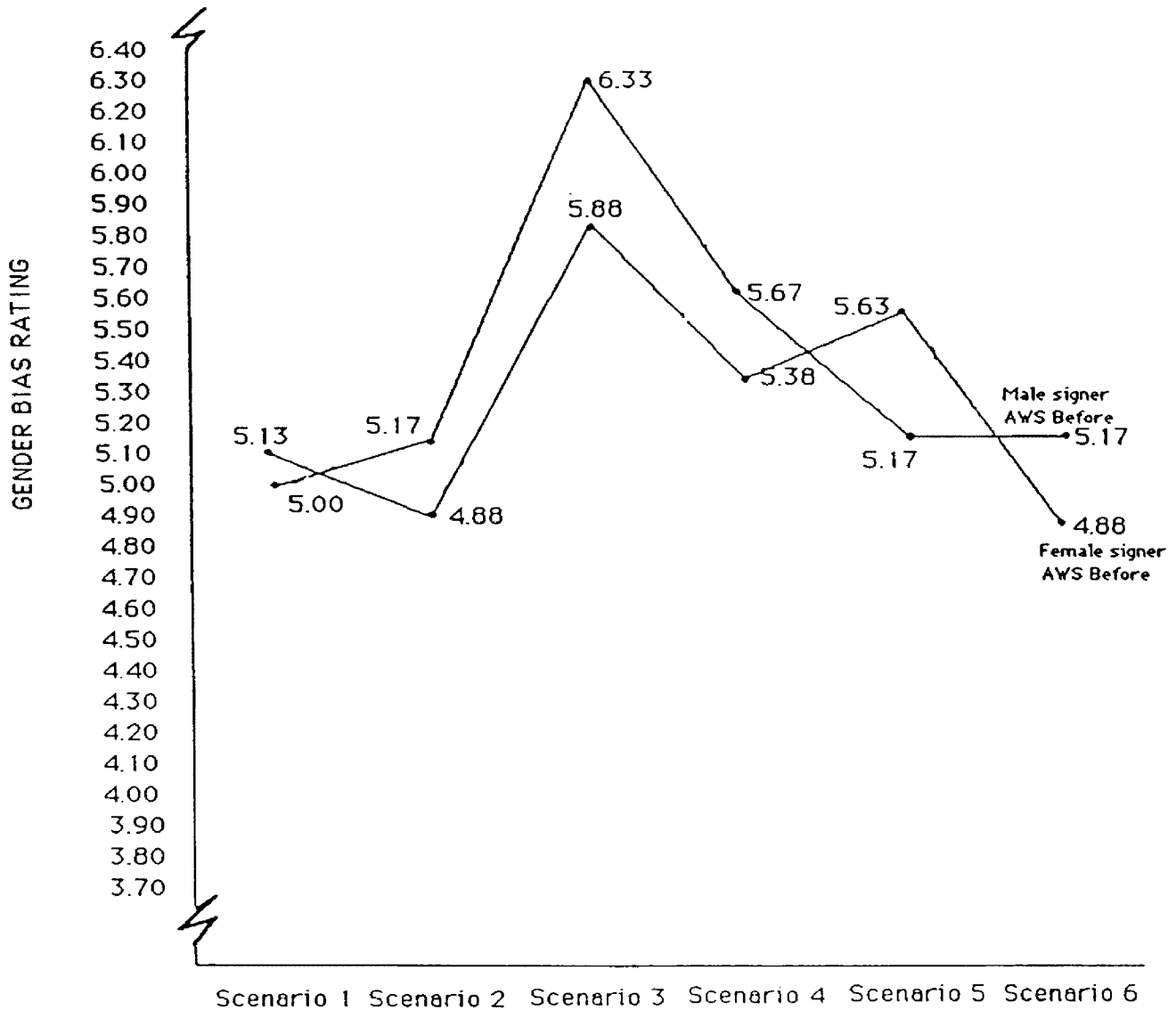
Scenario 1 = Feminine Occupation/Masculine Pronoun
 Scenario 2 = Masculine Occupation/Feminine Pronoun
 Scenario 3 = Feminine Occupation/Feminine Pronoun
 Scenario 4 = Masculine Occupation/Masculine Pronoun
 Scenario 5 = Feminine Occupation/Neutral Pronoun
 Scenario 6 = Masculine Occupation/Neutral Pronoun

Gender Bias Ratings, according to the sex of subjects in comparison to the six scenarios.



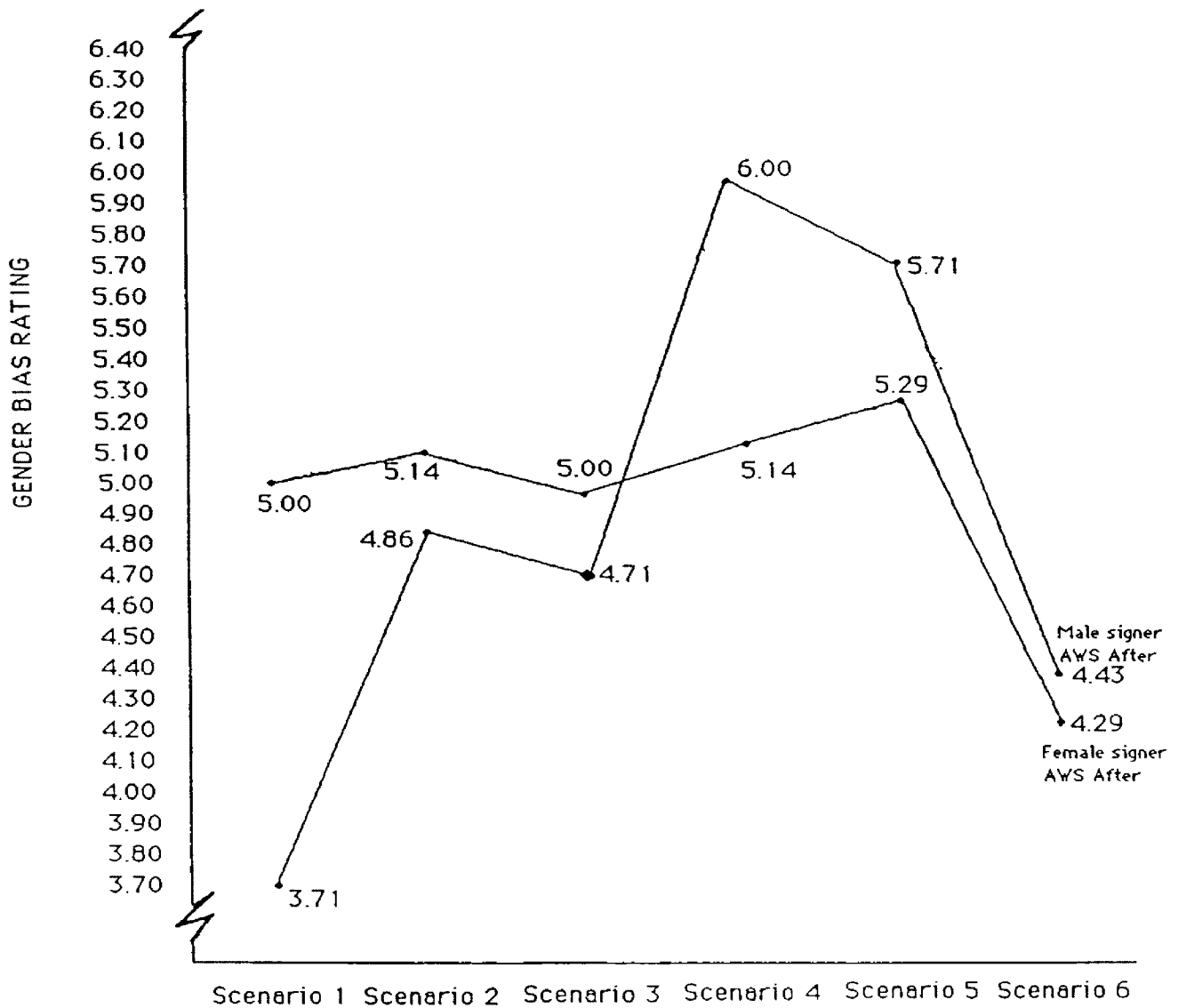
Scenario 1 = Feminine Occupation/Masculine Pronoun
 Scenario 2 = Masculine Occupation/Feminine Pronoun
 Scenario 3 = Feminine Occupation/Feminine Pronoun
 Scenario 4 = Masculine Occupation/Masculine Pronoun
 Scenario 5 = Feminine Occupation/Neutral Pronoun
 Scenario 6 = Masculine Occupation/Neutral Pronoun

Means of Gender-Bias Ratings
Between Sex of Signer and AWS Before



Scenario 1 = Feminine Occupation/Masculine Pronoun
 Scenario 2 = Masculine Occupation/Feminine Pronoun
 Scenario 3 = Feminine Occupation/Feminine Pronoun
 Scenario 4 = Masculine Occupation/Masculine Pronoun
 Scenario 5 = Feminine Occupation/Neutral Pronoun
 Scenario 6 = Masculine Occupation/Neutral Pronoun

Means of Gender-Bias Ratings
Between Sex of Signer and AWS After



Scenario 1 = Feminine Occupation/Masculine Pronoun
 Scenario 2 = Masculine Occupation/Feminine Pronoun
 Scenario 3 = Feminine Occupation/Feminine Pronoun
 Scenario 4 = Masculine Occupation/Masculine Pronoun
 Scenario 5 = Feminine Occupation/Neutral Pronoun
 Scenario 6 = Masculine Occupation/Neutral Pronoun

Chapter Four

DISCUSSION

4.1 Research Questions and Results

This research sought to answer three questions which would better determine if ASL incorporated gender-biased signs. The first research question asked if the deaf school-age children would be able to recognize gender bias in ASL when certain scenarios were manipulated. The results showed that there was a significant difference how the male and female subjects perceived male and female in certain occupations. The gender of the signer of the scenarios had no significant effect on the subjects' recognition of gender bias in the twelve scenarios.

The second question asked to what extent did the subjects' ability to recognize the gender bias correlate to their attitudes toward women? While the AWS did not correlate significantly with the gender-bias questionnaire, a distinction was made how female deaf students rated the gender bias questionnaire in relation to how they felt about their own gender. Males, while conservative on the gender bias questionnaire, were more liberal in their attitudes toward women than the females were. Murdock & Forsyth (1985) argued that persons who had an androgynous orientation toward sex roles and have positive attitudes toward females as measured by the AWS would be most likely to recognize gender bias in language.

The third research question sought to determine the extent to which

the timing of the AWS would affect the gender-bias questionnaire. Clearly, subjects who filled out the AWS scale before viewing the videotape rated the scenarios differently than those who took the AWS after seeing the videotape. The last questionnaire which asked the subjects to state the purpose of the study, only three were able to articulate the purpose. This suggests that the subjects are aware of the differences in their language but are not cognitive of the fact that they are aware. Deaf females particularly seem to be agree with the traditional sex roles for both males and females. While hearing females, according to Murdock & Forsyth, are take advantage of the liberal attitudes and make strides toward getting into non-traditional occupations, deaf females do not. Deaf males do not seem to be tuned into the female's perception of themselves. In Males and Females, Hunt (1972) wrote, "That sex differences do exist is an incontrovertible biological fact. Whether such differences should result in differential treatment of males and females is a social decision. Equality does not mean similarity" (p. 133).

4.2 ASL's Placement of Signs

Previous research examined the positions of the signs for male and females and tried to assert that ASL was biased because the masculine signs, such as father, boy, son, man, uncle, grandfather, and brother are made on the upper half of the head while the feminine signs, such as mother, girl, daughter, woman, grandmother, and sister are signed on the lower half of the head. The masculine signs being at the top of the head was to symbolize "head of the house and the brain." The feminine signs being at the lower part of the head was centered around the mouth as in

gossiping and "beneath the man." The only iconic signs that "make sense" are the signs for boy (as in tipping his hat) and for girl (as in tying her bonnet).

In defense of the placement of signs, ASL has undergone many arbitrary and iconic changes through the years to reduce the space needed to sign. Before, signs were made wherever and this caused the signer to be everywhere from head to toe on the body. In an effort to reduce the range a signer would have to stretch, signs are not restricted to an imaginary window around the signer's face. Thus, a lot of signs have to be crammed into confined parameters. So that signers and receivers will not forget how a sign is made correctly, signs are "assigned" to some designated space. If there is a rhyme or reason to the sign being placed somewhere, the easier it will be to remember the sign. Exactly where the signs are located does not necessitate a discrimination against a sex. What is defined as sexism is the connotations that come to people's minds and how they view a particular gender, in relation to a sign. This study sought to find out how the subjects did view women in general by asking the subjects questions about ASL.

4.3 Diagnosis: Sex Differences or Sex Discrimination?

Some may argue that this study has found sex differences and not sex discrimination. Extensions of this study could examine the perceptions deaf males and females have of women (hearing versus deaf) to determine what factors affect how deaf women decide their roles in society, especially if women intentionally choose roles that are not "masculine" in

characteristics. This information could lead researchers to better understand why deaf women may feel "inferior" or the need to obtain a sex-appropriate occupation. Deaf women may be doubly disadvantaged. First, they may feel the need to become "equal" with hearing women. Second, they may feel the need to become "equal" with men (deaf and/or hearing). Just exactly how the deaf females interpreted the questions could indicate how deaf females view women in different contexts.

4.4 Gallaudet University versus Elsewhere, U.S.A.

In the preliminary study conducted at Gallaudet University, ten males and ten females were asked how they perceive "secretary", "nurse," "president," and "pilot" on a scale of one to five with one being rated as "masculine" and five as "feminine." The females were more "liberal" than the males about "secretary" and "nurse." The females rated "secretary" 4.3 as a feminine occupation while males rated it 4.4 which is a slightly more conservative view. For the occupation "nurse," the results were similar; females rated it 4.1 and the males rated it 4.2 as a feminine occupation. For the masculine occupations, the males were more conservative than the females. For example, "president" was rated 1.7 by the males and 1.8 by females. "Pilot" was rated 1.4 by the males and 2.1 by females. So, it seems that at Gallaudet, the females may be more liberal in their views about occupations being held by either a man or a woman. This could be because Gallaudet University prides itself on being equal opportunity and is taking measures to expose the females to more than perhaps, the females from Montana have been exposed. Being in the capitol of the United States and having many capable women as politicians and other

leaders in the community, the deaf females at Gallaudet University probably do see more women in "higher" occupations.

4.5 Different Interpretations of Deaf Females' Answers

To determine which scenarios were reflecting the gender bias that the subjects were responding to, an analysis was made between each subject's ratings of each of the twelve statements. The female subjects wanted the masculine occupations to stay masculine and the feminine occupations to stay feminine. Does this mean that the deaf females are comfortable with the sex-role stereotypes because it increases predictability and they know what to expect? Would being in nontraditional occupations be more upsetting to the deaf females' than being in feminine occupations which could be construed as "inferior" to male traditional occupations? The deaf females may place more priority on security and predictability than they do on equal opportunity and sex-neutral occupations. Exactly how the females judge these occupations seems to make a difference to what they have been exposed to in their past. For example, the females at Gallaudet University did rate the occupations more liberally than did the Montana females.

In retrospect, there are three questions of interpreting the conservativeness of females from a female's perspective. The first question is are the females thinking the researcher is asking, "Who does the job the most, a man or a woman?" Or, a second question is do the females think the researcher is asking, "Who can do the job, a man or a woman?" They could be indicating that they are tuned in to the concept of

sexism even if they do not label "sexism" as such. The third question that could be asked is are the deaf women separating what deaf women can do versus what hearing women can do?

Hearing people do not think when looking at a picture that a person might be deaf. The deaf, on the other hand, may be looking at the picture and asking, "Is that a hearing or a Deaf?" Do deaf females have a different perception of "hearing women" versus "deaf women?" If it is found to be true that deaf females are viewing themselves as less competent than hearing females, then special training sessions that reinforce the central tenets of self-concept and self-esteem could be implemented. Also, further exposure of deafness and its implications can always be used as education. This has been found to be effective. For example, at Gallaudet University, every student must take extensive classes in Deafness and Deaf Psychology. The rationale is that in order to fully cope with a handicap, the person afflicted must understand the handicap him/herself. Then, by knowing what are and are not the limitations, the deaf person can better deal with the various facets and repercussions in life. When a Deaf says that he/she is a Gallaudet University alumni, the Deaf community look up to this accomplishment with high esteem. Gallaudet University educators know this and also know that their graduates are well-respected and listened to by the other members in the Deaf community. With this in mind, Gallaudet University arms their students with vast knowledge and teach education about deafness that can be filtered down into the Deaf community.

4.6 Some Social Implications

4.6.1 "Deaf people can do anything, except hear"

Further study could be done to determine exactly how the deaf females viewed the questions in this study. If it is true that deaf females feel that they are not as capable as hearing women, then perhaps more emphasis could be placed on the slogan that "Deaf people can do anything, except hear." This was a powerful slogan during the Deaf Prez Now movement back in March, 1988 that ousted hearing woman Dr. Elisabeth Ann Zinser from her week-long presidency at Gallaudet University. This same slogan also helped establish Dr. I. King Jordan as the first deaf president of Gallaudet University in its 124 year history. A possible study that could help determine how young deaf students feel about various occupations is to ask, "Can deaf and hearing do this job or is this job for hearing people only?" Some argue that the Deaf are being discriminated against in certain occupations. The Deaf must first apply for these occupations. If the Deaf would branch out and begin to put themselves into the non-traditional "hearing" occupations, perhaps this could serve as role models for younger deaf students.

4.6.2 ASL Is A Whole Language of Another Culture

Another major point that has been made and needs to be reinforced is ASL is a different language from English and the Deaf culture is entirely different from hearing culture. Just because a particular word may be considered discriminatory towards women in English due to how hearing people view the concept does not mean the same occurs in ASL. Deaf

people may not share these conceptual views in their language. For example in the hearing culture, "lady cop" and "policeman" may be offensive to some while "law enforcement officer" and "police officer" are regarded as gender-neutral terms. However, all of the above terms could be signed in ASL with the same sign (Lettershape "C" over the chest symbolizing a police badge). The sign itself is not sexist or gender-biased. How the receiver perceives and interprets this sign will be based on his/her understanding and knowledge of ASL. To be extremely clear, an ASL signer may insert "woman" before the sign "cop." This could be following a rule in ASL where the signer is to put the most salient or prevalent information first. For example, if I were to ask you "where do you live?" I would sign "live where" or "where live." My focus would depend if I was more interested in your living or the exact place where you live. So, regarding the "lady cop," if the focal issue is the fact that the police officer was a woman, then the signer may place "woman" before cop.

4.7 Taking the Sexism Out of ASL

While this researcher maintains that ASL is gender-biased in comparison to English, the changes proposed in the English language to reduce sexism and gender bias such as adhering to the American Psychological Association's Guidelines to Nonsexist Language will not work in ASL. The hearing can change their choice of wording to recreate different images of males and females in occupations. Such changes are not as easily applied to ASL since the signs will remain the same. The changes in ASL that occur will have to occur at a cognitive level within the minds of the Deaf. In order for change to come about in ASL, the Deaf

must recognize the need. Some hearing "friends of the Deaf" say, without proof, that the Deaf community lags behind the hearing community in social issues. If this proves to be true, then perhaps in the next decade there will be an upsurge of information in the Deaf community to eradicate gender-bias signs in ASL. Meanwhile, catalysts must be in place to bring about the social change. This researcher offers a few suggestions that can be used as catalysts to start the process of eliminating gender-bias in ASL.

4.8 Options to Pursue in Ridding ASL of Gender Bias

The key to unlocking gender bias in ASL is to understand the Deaf culture because it is the culture that interprets ASL. From the evidence of this quantitative study, ASL does show evidence that its users are gender-biased. The people who use ASL have perceptions of gender bias and they "read" this into the language. This researcher argues that the gender-bias lies within the people's minds, not the language. ASL, itself, does not sow sexism as clearly as one may find in English. It takes two signs to make an "idea" sexist whereas in English, one word can bring about sexist connotations. For example, the sign for "cop" is not sexist. Only when the Deaf put in the "woman" sign before "cop" is the idea then sexist. So, alternatives could be implemented to prevent the Deaf from thinking that they must specify the gender.

4.8.1 More Printed Materials in ASL-Syntax

This study indicates that deaf subjects do understand written materials better when written in the Deaf's native language, ASL. Books

that are written in English are cumbersome for Deaf people to read with full understanding and comprehension. Just as translations occur in other languages of English printed materials, perhaps a study that scrutinized the effectiveness of printed materials in ASL for Deaf people could be pursued. Since Deaf people read at the level comparable to a fourth grader, few read. By not reading, the Deaf are not exposed to men and women in nontraditional roles. More education classes teaching English reading skills to deaf students would enable the deaf students to better read the mainstream literature. By not being able to hear television, the Deaf are not exposed to men and women in nontraditional roles.

4.8.2 More Closed Captioning

Closed captioning has really opened the gateway for many Deaf people. Before closed captioning, television was not functional to the deaf. Years ago, foreign movies used to be a favorite for deaf people because they were captioned at the bottom in English. Before closed captioning, most Deaf had to wait until the newspaper came out to get the news. By then, the news was a day old. Closed captioning has become the Deaf's radio, television and up-to-date newspaper. There is a National Captioning Institute located in Fairfax, Virginia that is striving to get more television programming televised. The US Department of Education does fund some captioning but not all. Some funds come from large corporations such as Mobil, Ford, Proctor and Gamble, and others. The difficulty with getting all programming captioned is that some television and video executives do not see captioning as being financially beneficial. The Deaf would rent videos that were closed-captioned. The Deaf

sometimes will watch a program on television that is closed captioned over another program that is not. With more closed captioning, young deaf children can understand and learn more about different occupations and the changing sex roles of males and females. With this extra exposure, perhaps the young deaf children will be less intimidated by what they perceive to be "hearing occupations."

4.8.3 More Exposure to Nontraditional Roles

Would greater exposure to women in nontraditional roles increase deaf school-age females' positive perception of women? The hearing children can see women in more nontraditional roles on television with ease. Since all deaf people do not have closed caption decoders (devices that allow the words to appear on the bottom of the television screen) and the fact that not all shows are closed captioned (due to television executive decisions or lack of funding), the deaf children are not exposed to as many examples of women and men in nontraditional roles as hearing children may be. The average hearing person watches approximately four hours of television each day allowing the hearing person opportunities to take in large amounts of information.

4.8.4 More Education Classes about Deafness

Educating deaf children how their deafness affects their learning can be beneficial. By knowing what they are not taking in through their ears, the deaf can learn other strategies to take in information through some of their other senses. Their eyes can be the greatest asset if the deaf could read information in a language that they can understand.

Psychologists will say that motivation has a strong factor in learning and maybe even moreso than a person's level of intelligence. Thus, explaining the psychology of deafness and the normal emotions that accompany deafness can let young deaf children know that they are not abnormal or alone in their feelings. By better understanding why they feel the way they do about their deafness and its implications, the deaf can be more creative in dealing with situations that are made more complicated by deafness. Just as blacks should learn about African history, the Indians about Native Americans, the Deaf should learn about their rich culture and the proud heritage of Deafness. It is here that success stories of Deaf women can be entered into the curriculum. These courses can be taught by both deaf men and women to serve as role models for the children. While education classes in deafness are needed, classes in basic communication cannot be neglected.

4.8.5 More Communication Classes

Because deaf people do not pick up the "facts in life" through casual listening and eavesdropping, learning the lessons of life can be made a little more difficult. It may be easy for the conflict of the family to be blamed on the deafness, that the self-esteem is not in a child because he/she has nothing to be proud of since he/she is deaf. Information on self-concept, relationships, and conflict can be useful to everyone, both deaf and hearing. By exploring male-female communication, sexual harassment, sex discrimination, and other gender-bias topics, the deaf can become cognitively sensitized to the issues. The implication here is that the deaf will go outside of the classroom and make changes in

his/her lifestyle and way of thinking. The change in attitude will be reinforced and apparent in the language.

4.9 Future Research and Its Implications

The present study creates several potential extensions for future research in examining gender bias in American Sign Language. Several questions have been posed throughout the Discussion chapter to be pursued as extensions of this study. Future research to better understand gender-bias language can benefit by examining how the signers and the receivers of the signs interpret the signs. A serious dilemma in establishing that ASL is sexist could be problematic. If the Deaf think that their language is "bad," some may refrain from signing bringing about detrimental effects throughout the Deaf community. This is the sole communication for some Deaf Americans. Also, the Deaf may feel guilty and ashamed of their language which some define as their culture. This researcher has argued that sexism does not lie in the language, just as Jolly and O'Kelly (1985) determined. The connotations of the signs that lies within the minds of the Deaf people is what gives life and meaning to the signs. If society wants to change some negative connotations, then education seems to be an alternative. This researcher suggested some specific ways to alter the behavior, rather than telling the Deaf that their language is bad and that they should do something about the gender-bias and sexism.

Conclusion

In summary, this researcher sees several options that can be pursued to

reduce the amount of gender-bias in Deaf people's use of ASL. All of the options involve allowing young deaf males and females to see men and women in nontraditional roles. First, recognize that ASL and English are two separate languages and that materials for Deaf people can be put into ASL syntax, rather than English syntax. Second, that more programs and commercials on television be close-captioned so that those Deaf people with closed caption decoders can read these. Two positive results will come of this. First, the Deaf people will get the information. A second result is the Deaf will have the opportunity to better their English skills (second language) by reading the English in captions. A third option is to further expose deaf children to different occupations and let them know that they can do anything, except hear. With deaf persons diversifying themselves into the national market, more hearing people will become exposed to Deaf people and their special needs. This can be the initial stages of getting more assistive devices in the world for the Deaf. A fourth option is to create and make available more educational classes on Deafness, Deaf Psychology, Deaf History, and the Great Deaf People of America who have become successful. By allowing the Deaf to better understand their deafness, they have a more solid foundation to deal with their impairment. When a Deaf can deal with his/her impairment, others around him/her will have an encouraging model to follow. A fifth option is to implement Communication training in the deaf schools (from kindergarten on up) educating young deaf students about self-concept, self-disclosure, differences between male and female communication. By understanding there are differences, misconceptions about discrimination can be greatly minimized.

Just recently, the Bible has been revised to eliminate the generic "he" and "man" to include both men and women. The pronoun for God has remained "he." In a few years, it would be interesting to replicate this study to determine if further infiltration of gender-neutral language in English would have an effect on ASL. It would also be interesting to see if, over the next decade, a sign is created for the concept of sexism. For example, when the concept or new idea spreads through out the Deaf community, a sign is created. This researcher argues that, hopefully, through more closed captioning, more materials printed in ASL and the Deaf becoming more involved with the hearing working world, that the attitudes of young deaf children should be less conservative about the roles of men and women. This would allow for a closing in the now-widening gap between the deaf and the hearing as far as attitudes toward gender are concerned.

Appendix A
ASL Signed Essay Questions as Presented in Video

E. On way New York, secretary man name Jack became sick. Go hospital. He broke arm. Dr. Smith said Jack be okay. After two days, Jack left hospital and went back work. Jack secretary and must type a lot, he still do other things in office.

F. Bill want become man nurse. All his life, Bill want help other people. This summer, Bill work hospital help nurse take care of other people. He found out he only guy in class full of women. But, man nurse Bill still want.

K. On way New York, secretary name Lisa became sick. Must go hospital. Arm broke she. Lisa be okay Dr. Smith say. After two days, Lisa left hospital and went back to work. Lisa secretary and must type a lot, she do other things in office.

L. Jennifer want become nurse. All of her life, she want help other people. This summer, she work hospital help nurse take care of other people. Jennifer found she only woman in class full of men. Nurse, Jennifer still want become.

G. On the way New York, secretary became sick. Hospital must go. Secretary broke arm. Dr. Smith said secretary be okay. After two days, secretary left hospital and returned to work. Secretary must type a lot, still do other things in office.

H. Student want become nurse. Ever since small, student want help other people. This summer, student worked hospital help nurse take care of other people. Student found that he/she (ASL pronoun) only person in a class full of opposite sex. Student still want become nurse.

I. On plane, woman fly person name Cindy spoke passengers. She told people she be woman fly person for five years. She really enjoy pilot. Some people surprise Cindy be pilot. Cindy said most her friends happy.

J. Jennifer new woman President of Coca-Cola. Jennifer ask some people in store about new softdrinks. President surprise some people not like c-o-k-e. President, smiled and thanked people for answer her questions. Then, Jennifer went home finish drank some c-o-k-e finish.

A. On plane, fly person name Paul spoke to passengers. Paul told people he work fly plane for five years. He really enjoy be pilot. Some people surprise Paul be pilot. Paul said most of his friends happy for him.

B. Bob is new President of Coca-Cola. Bob ask some people in store about new pop. President surprised some people not like c-o-k-e. President, Bob smile and thank people for answer his questions. Then, Bob went home finish and drank some c-o-k-e finish.

E. On plane, fly person spoke passengers. Fly person fly plane five years. Pilot work five years with planes. Some people amaze this person be pilot. The pilot said friends happy.

F. Person from Montana is new President of Coca-Cola. Person ask some people in store about new pop drink. President surprise some people not like c-o-k-e. President smiled finish thank the people for answer questions. Then, President went home finish and drank c-o-k-e finish.

Appendix B

Questionnaire as Presented to Pilot Study Subjects At Gallaudet University

Occupation	Masculine		Feminine		
secretary	1	2	3	4	5
mechanic	1	2	3	4	5
model	1	2	3	4	5
flight attendant	1	2	3	4	5
businessperson	1	2	3	4	5
librarian	1	2	3	4	5
nurse	1	2	3	4	5
president	1	2	3	4	5
custodian	1	2	3	4	5
hairstylist	1	2	3	4	5
news anchor	1	2	3	4	5
salesperson	1	2	3	4	5
athlete	1	2	3	4	5
electrician	1	2	3	4	5
soldier	1	2	3	4	5
teacher	1	2	3	4	5
plumber	1	2	3	4	5
manager	1	2	3	4	5
lab technician	1	2	3	4	5
author	1	2	3	4	5
mail carrier	1	2	3	4	5
musician	1	2	3	4	5
doctor	1	2	3	4	5
pilot	1	2	3	4	5
firefighter	1	2	3	4	5
chairperson	1	2	3	4	5
police officer	1	2	3	4	5

Appendix C

Means of Preliminary Questionnaire from Gallaudet University

Occupation	Mean	Mode
secretary	4.35	4, 5
mechanic	1.95	2
model	3.7	3
flight attendant	2.95	3
businessperson	3.1	3
librarian	3.55	3
nurse	4.15	5
president	1.75	1
custodian	2.9	3
hairstylist	3.58	3
news anchor	3	3
salesperson	2.65	3
athlete	2.65	3
electrician	1.9	2
soldier	1.85	2
teacher	2.95	3
plumber	1.96	2
manager	2.9	3
lab technician	2.55	3
author	2.75	3
mail carrier	2.75	3
musician	2.9	3
doctor	2.15	3
pilot	1.75	2
firefighter	2.4	2
chairperson	3.05	3
police officer	2.25	3

Appendix D

GENDER-BIAS QUESTIONNAIRE

	Strongly Agree	Agree	Disagree	Strongly Disagree
1. "Man secretary" is the best way to describe Jack being a secretary.	1	2	3	4
2. The signer signing Bill the man nurse should not have signed (man.)	1	2	3	4
3. The secretary without a name was not signed right without the sign for either "man" or "woman."	1	2	3	4
4. The student without a name that wanted to be a nurse was signed fine without a "man" or "woman" sign.	1	2	3	4
5. The signer signed "woman pilot" and this is wrong.	1	2	3	4
6. The signer signed "man pilot" and this is wrong.	1	2	3	4
7. The signer signed "woman president" and this is fine.	1	2	3	4
8. The signer did not sign "man president" because Bob is understood to be a man and men are normally presidents.	1	2	3	4
9. The pilot without a name may be a man or a woman the the signer signed this.	1	2	3	4
10. The person from Montana who was Coca-Cola's new President is probably a man the way the signer signed it.	1	2	3	4
11. Lisa should be a secretary was signed right by the signer.	1	2	3	4
12. If the signer signed "Jennifer, woman nurse" this would be dumb because most women are nurses.	1	2	3	4

Appendix E

Attitudes Toward Women Scale (AWS)- Short Version Spence, J.T., Helmreich, R. & Stapp, J. (1973).

	Strongly Agree	Agree	Disagree	Strongly Disagree
1. Swearing and obscenity are more repulsive in the speech of a woman than a man.	1	2	3	4
2. Women should take increasing responsibility for leadership in solving the intellectual and social problems of the day.	1	2	3	4
3. Both husband and wife should be allowed the same grounds for divorce.	1	2	3	4
4. Telling dirty jokes should be mostly a masculine prerogative.	1	2	3	4
5. Intoxication among women is worse than intoxication among men.	1	2	3	4
6. Under modern economic conditions with women being active outside the home, men should share in household tasks such as washing dishes and doing the laundry.	1	2	3	4
7. It is insulting to women to have the "obey" clause remain in the marriage service.	1	2	3	4
8. There should be a strict merit system in job appointment and promotion without regard to sex.	1	2	3	4
9. A woman should be as free as a man to propose marriage.	1	2	3	4
10. Women should worry less about their rights and more about becoming good wives and mothers.	1	2	3	4
11. Women earning as much as their dates should bear equally the expense when they go out together.	1	2	3	4

12. Women should assume their rightful place in business and all the professions along with men.	1	2	3	4
13. A woman should not expect to go to exactly the same places or to have quite the same freedom of action as a man.	1	2	3	4
14. Sons in a family should be given more encouragement to go to college than daughters.	1	2	3	4
15. It is ridiculous for a woman to run a locomotive and for a man to darn socks.	1	2	3	4
16. In general, the father should have greater authority than the mother in the bringing up of children.	1	2	3	4
17. Women should be encouraged not to become sexually intimate with anyone before marriage, even their fiancés.	1	2	3	4
18. The husband should not be favored by law over the wife in the disposal of family property or income.	1	2	3	4
19. Women should be concerned with their duties of childbearing and house tending, rather than with desires for professional and business careers.	1	2	3	4
20. The intellectual leadership of a community should be largely in the hands of men.	1	2	3	4
21. Economic and social freedom is worth far more to women than acceptance of the ideal of femininity which has been set up by men.	1	2	3	4
22. On the average, women should be regarded as less capable of contributing to economic production than are men.	1	2	3	4
23. There are many jobs in which men should be given preference over women in being hired or promoted.	1	2	3	4

24. Women should be given equal opportunity with men for apprenticeship in the various trades.	1	2	3	4
25. The modern girl is entitled to the same freedom from regulation and control that is given to the modern boy.	1	2	3	4

Appendix F

Attitudes Toward Women Scale (AWS)- Short Version Spence, J.T., Helmreich, R. & Stapp, J. (1973).

	Strongly Agree	Agree	Disagree	Strongly Disagree
1. Swearing and "dirty" words are more bad in a woman than a man.	1	2	3	4
2. Women should help fix the problems of today.	1	2	3	4
3. Both husband and wife should be allowed the same reasons for divorce.	1	2	3	4
4. Telling dirty jokes should be for men only.	1	2	3	4
5. Getting drunk among women is worse than men getting drunk.	1	2	3	4
6. To help out at home, men should wash dishes and do laundry.	1	2	3	4
7. Women should "obey" their husband.	1	2	3	4
8. Men and women should get new job or promotion without regard to sex.	1	2	3	4
9. A woman can ask man to marry her instead of man asking woman.	1	2	3	4
10. Women should worry less about their rights and worry more about becoming good wives and mothers.	1	2	3	4
11. Women who make same money as men should pay half the cost of date.	1	2	3	4
12. Women should be their rightful place in business and all the professions along with men.	1	2	3	4
13. A woman should not go to same places do same things as a man.	1	2	3	4

14. Sons in family should go to college more than daughters should go to college.	1	2	3	4
15. Dumb for a woman to run a train and for a man to fix socks.	1	2	3	4
16. Father should have greater power than the mother in raising children.	1	2	3	4
17. Women should not have sex before marriage.	1	2	3	4
18. If husband and wife divorce, man should not get the house, car and money.	1	2	3	4
19. Women should worry more about children and house than about work.	1	2	3	4
20. The leaders in a community should be men.	1	2	3	4
21. Money and a good job are more important to women than women acting the way men want women to act.	1	2	3	4
22. Women cannot make as much money as men.	1	2	3	4
23. In some jobs, men should get the jobs before the women.	1	2	3	4
24. Women should be given equal opportunity with men for jobs.	1	2	3	4
25. The girl can do the same thing as the boy.	1	2	3	4

Appendix G**Demographic Questionnaire**

I am: male
 female

I am: hearing impaired
 deaf

I am: _____ years old.

My parents are: hearing
 hearing impaired
 deaf

I sign in: ASL
 SEE
 both ASL and SEE

"What was the Purpose?"

On this sheet of paper, please write in your own words what you think the researcher was trying to do in this study with the videotape and questionnaires. Write as much as you would like.

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