The Interpretation of Generic Language as Male or Male/Female by Nine and Ten Year Old Children

Jane H. Vander Weyden

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THE INTERPRETATION OF GENERIC LANGUAGE
AS MALE OR MALE/FEMALE BY NINE AND
TEN YEAR OLD CHILDREN

by

Jane H. Vander Weyden

A Thesis
Submitted to the
Faculty of The Graduate College
in partial fulfillment
of the
Degree of Master of Arts

Western Michigan University
Kalamazoo, Michigan
August 1979
ACKNOWLEDGMENTS

I wish to express my sincere gratitude for the separate and combined patience, expertise and guidance of my committee members, Dr. George Robeck, chairperson, Dr. Ruth Heinig and Dr. Steven Rhodes. Special thanks are due Dr. Robeck for his encouragement and interest in the initial stages of this project and for his continued willingness to serve as a sounding board for ideas and problems. Without the keen perception and attention to detail of Dr. Heinig and the guidance of Dr. Rhodes in defining the limits of the study as well as analyzing the data, the project would have been far more difficult to complete. Their willingness and continued support far after the initial proposed completion date is greatly appreciated.

Thanks go to the Kalamazoo Public School System for allowing me to include KPS children in this study. I appreciate the help and support of principal Shirley Gregory, teachers Louise Miller, Laurence Nydegger, Helen Hamilton and Lewis Chapin, and instructional specialist Barbara Hinckley. I am grateful for the technical assistance of Dr. Michael Stoline in analyzing the data provided by judges Trudy Stauffer, Steve Terranella, Betty Cohen, Millie Pritchard, Mark Smith and Rosemary Dilworth who gave generously of their time and efforts. Finally, I wish to express special thanks to my family, Dick, Lisa and Jenny, for their support and encouragement during this project.

Jane H. Vander Weyden
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THE INTERPRETATION OF GENERIC LANGUAGE AS
MALE OR MALE/FEMALE BY NINE AND TEN YEAR OLD
CHILDREN.
WESTERN MICHIGAN UNIVERSITY, M.A., 1979

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# TABLE OF CONTENTS

**LIST OF TABLES** ................................................................. iv

**CHAPTER**

I  THE PROBLEM AND ITS BACKGROUND ........................................ 1
   Introduction ................................................................. 1
   Review of the Literature .............................................. 9
   Statement of the Problem ............................................. 16
   Hypothesis ................................................................. 16

II  METHODOLOGY ................................................................. 18
   Subjects .................................................................... 19
   Pretest ................................................................. 20
   Teacher Training Sessions ........................................... 22
   Procedures .............................................................. 23
   Judging ................................................................. 24

III  RESULTS ................................................................. 26

IV  DISCUSSION ................................................................. 31
   Summary ................................................................. 31
   Implications ............................................................ 33
   Recommendations ..................................................... 36

REFERENCES ................................................................. 38

APPENDICES ................................................................. 39
   Appendix A--Subjects' Directions ................................. 40
   Appendix B--Agenda--Teacher Training Session ................. 41
   Appendix C--Teachers' Script ........................................ 42
   Appendix D--Judges' Packets ........................................ 43

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LIST OF TABLES

1. Total Figures Drawn in Survey (By Group) .... 27
2. Cave Men Group Responses ................... 28
3. Cave People Group Responses .................. 28
4. Female Subjects' Responses (By Group) ....... 29
5. Male Subjects' Responses (By Group) ........... 30
CHAPTER I

THE PROBLEM AND ITS BACKGROUND

Introduction

Linguists, psychologists, and sociologists have long debated the role of language in the cognitive and perceptive functions of people. Many theories have evolved which attempt to define and explain how language affects the persons who use it. Whorf's\(^1\) theory of linguistic determinism credits language with providing shape and meaning to all human experience, experience which would otherwise be simply a confusion of constantly changing impressions. Further, he proposes that humans think with language, and therefore language determines thought and perception.

Kneupper,\(^2\) however, suggests that Whorf's theory of linguistic determinism implies that language has total control over people's perceptual capabilities. He concedes the vast influence language has in thought and understanding but believes that language functions within a nexus of mediating factors, all of which influence perception. His theory of linguistic dominance recognizes the dominant role of language in thought, yet acknowledges the purely theoretical nature of any discussion of the subject.

\(^1\)Kneupper, Charles W., "Language and Thought: Rhetorical Implications." Etc., II (September 1975), p. 306.

\(^2\)loc. cit., p. 308.
There are several recent studies which support Kneupper's theory of linguistic dominance. Carmichael, Hogan and Walters\(^1\) briefly exposed subjects to a set of visual figures which were paired with verbal labels. When the subjects were asked to draw the figures from memory, they drew figures which more closely resembled the verbal descriptions than the visual representations. For example, subjects who had been shown 0-0 accompanied by the term *eyeglasses*, drew 0-0. When figures were not accompanied by verbal descriptions, the subjects frequently made one up. This study suggests that people find it easier to understand and remember concepts when they are translated into language than when they remain strictly visual.

Another study, by Brown and Lenneberg,\(^2\) supports these conclusions. They tested the ability of English-speaking people to recognize and remember colors. Subjects were shown a wide variety of colors, some of which had English names and some of which did not. The researchers found that the subjects' ability to recognize and remember colors was directly related to the codability of the color. Codability refers to how easily an object can be described verbally. An object with high codability can be described in one word; an object with low codability requires several words for description. For example, red is a color with high codability, while puce is a color with low codability.

\(^{1}\)loc. cit., p. 309.

\(^{2}\)loc. cit., p. 310.
In the above study, it was found that the lower the codability of a color, the more cognitive processing was required for subjects to identify it. Further, the lower the codability of a color, the less likely subjects were to remember it. The results of this study suggest that language is one means whereby people sort, classify and store the kaleidoscopic influx of stimuli and experience that is human existence.

If language does, as much evidence suggests, play an important and even dominant role in the way people think and perceive their world, it follows that the language of any society has great impact on the society as a whole and the individual members of that society. Sapir\textsuperscript{1} states:

Human beings do not live in the objective world alone, nor alone in the world of social activity as ordinarily understood, but are very much at the mercy of the particular language which has become the medium of expression for their society. It is quite an illusion to imagine that one adjusts to reality essentially without the use of language. . . . The fact of the matter is that the "real world" is to a large extent unconsciously built up on the language habits of the group. . . . We see and hear and otherwise experience very largely as we do because the language habits of our community predispose certain choices of interpretation.

Hertzler\textsuperscript{2} echoes this theory when she states that "most of what happens socially . . . is mediated by language, incited and propelled by


language, instructed and programmed by language, directed and controlled by language."

The structures and institutions of society, as well as the expectations and limitations which society places upon its members, are very closely connected with the language which the society uses to describe the world. However, a question frequently debated is: Which came first—language patterns or cultural norms? Marshall\(^1\) argues that the issue is not simply another version of the chicken/egg dilemma. Rather, she states that culture and language have "grown up together," constantly changing and influencing each other.\(^2\) According to Turner,\(^3\) language is influenced by reality, reflects reality, and also shapes people's ideas of reality.

English-speaking persons, like those of other cultures, are greatly influenced by language and its use. However, Lakoff\(^4\) and Nilsen\(^5\) have stated that women and men are affected differently because they have basically different linguistic experiences. They have described two basic differences in the way English-speaking women and men experience language. First, the sexes are taught and expected to use language differently. Men are taught from early childhood to

\(^1\) op. cit., p. 4.
\(^2\) ibid.
use bold, precise and forceful language. Women, on the other hand, are taught to use "soft" language that is appropriate for a "lady." Nilsen\(^1\) states that society teaches and encourages these differences, which create a "Catch-22" situation for women. If women learn their linguistic lessons well and speak like ladies, they are not taken seriously and are accused of not being able to think clearly or seriously. Their alternative is to adopt the bolder more definitive speech generally accepted from men, and to suffer the consequent disapproval of society for doing so. Woman's choice, then, she says, is to talk like a man and be considered less than a woman, or to talk like a woman and be considered less than a person.

The second linguistic disparity between English speaking males and females is the way the English language itself presents them: Men often are presented as dominant, while women frequently are either invisible or described in terms of their sexuality or servitude. In the English language, there are approximately 385 male gender-marked words and only 132 female gender-marked words.\(^2\) Not only are there more words to describe or refer to males than females, but more female-marked words have negative or frivolous meanings or connotations than do male-marked words.\(^3\) A frequently noted example is the difference in connotation between the phrases bull session, which is male-marked, and hen party, which is female-marked. Bull session implies vigorous,

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\(^1\)loc. cit., pp. 16-17.

\(^2\)loc. cit., p. 47.

\(^3\)ibid.
brain storming, problem solving activity; hen party implies silly, frivolous chattering.

Many male-marked words in the English language have developed through the combining of a word which describes an occupation or concept and the word man or men, thus creating a compound word or phrase. Many examples of this process come to mind: congressman, workingman, spokesman, journeyman, statesman, man on the street, the best man for the job, chairman, man-sized, and so forth. Dictionary definitions of these words do not indicate the gender of those who are included in the definitions. For example, the dictionary defines congressman as "a member of either house of Congress, especially of the House of Representatives." Spokesman is defined as "one who speaks for or in behalf of another or others."2

Using dictionary definitions as a basis, many linguists and other students of the language, as well as lay people, argue that male-connotated words usually refer equally to men and women. Others, such as Miller and Swift, disagree, stating that "A word means what it means not because of what dictionaries say about it, but because most speakers of the language use it with a certain meaning in mind and expect others to use it with the same meaning." They cite many


2loc. cit., p. 1755.

instances in which the generic form of a word which supposedly refers equally to men and women is used in a way that can only be interpreted as meaning males. Miller and Swift\(^1\) call this use of generics, as well as the use of the generic pronouns he and his, the "linguistic presumption of maleness."

A serious problem for females results from the common use of generic words which sometimes includes and sometimes excludes women. During early childhood, people learn that the females in their lives (mother, sister, grandma, aunt) are women and therefore are she. They also learn that males (dad, grandpa, uncle, brother) are men or he. At some unspecified point in childhood, it is assumed that children stop thinking of man as male and begin thinking of man as both male and female. They do not, however, begin to think of woman as both male and female. They also are expected to understand that man means both male and female sometimes, as in the phrase "man and his world," but it sometimes means men only.

If man sometimes includes women and sometimes does not, women can never be certain whether they are, in fact, participants in the world and its history, or simply observers. Using generics makes women literally and linguistically invisible. Turner\(^2\) states, "Women have never been so unusual in nonsexual roles as the English language would have us believe." But, she continues, because of woman's invisibility in our language, every woman who plays an independent or

\(^1\)loc. cit., p. 31.

\(^2\)Turner, op. cit., p. 249.
non-passive role in our society is seen as an exception. Because of their exclusion from the language, women are often defined as powerless, incapable of serious thought or action, and inferior to men. As women accept these definitions of themselves, they begin to act in ways which reinforce stereotypical definitions.

Because there is serious disagreement concerning the effects of the use of generic pronouns and words, especially man, men, he and his, it is important to attempt to define exactly how English-speaking persons interpret generic words. Lakoff\(^1\) states that linguistic imbalances reflect inequities in society at large, and serve as clues that something needs to be changed. She also states that "We should be attempting to single out those linguistic uses that by implication and innuendo, demean the members of one group or another, and should be seeking to make speakers of English aware of the psychological damage such forms do."\(^2\)

In order to study those imbalances Lakoff describes, it first is necessary to identify them. One linguistic use that warrants serious investigation is the use of generic terms, so that it may be determined whether their use does, in fact, constitute the kind of linguistic imbalance of which Lakoff speaks.

\(^1\)Lakoff, op. cit., pp. 43-44.

\(^2\)ibid.
Review of the Literature

Three studies which investigated the use of generic words and people's interpretation of them as either male or male/female have been undertaken. A description of them follows.

Nilsen\(^1\) used a picture selection technique to determine whether children interpreted man to be males or males and females. Approximately 100 children, nursery school age through seventh grade, were asked to select pictures to illustrate sentences which contained the generic man. Sample sentences used in the study included: "Man must work in order to eat." Also: "Around the world man is happy." A majority of the children of every age, and of both sexes, interpreted man to mean male. Nilsen concluded that children usually do not think of females when ideas are presented to them with the use of generic words and pronouns. She cited language as one factor which influenced the exclusion of females from children's ideas of the world, but also cited the sexist nature of beginning sociology texts as a mediating factor. As an example of the male-oriented nature of school learning materials, Nilsen\(^2\) stated that in beginning textbooks on prehistoric people, illustrations of males outnumber illustrations of females eight to one.

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\(^2\) loc. cit., p. 96.
A study by Schneider and Hacker\(^1\) involved approximately 300 college students from Drake University, Grandview College and Simpson College. The subjects were asked to select pictures, cartoons, illustrations, advertisements and photographs from magazines and newspapers to illustrate chapters for a beginning sociology text. The subjects did not know the purpose of the study which was to determine whether the generic *man* suggested males to the students. Subjects were told that some members of the Duke University Department of Sociology were considering illustrating an introductory sociology text and would like to see pictures which students felt represented a given list of topic titles. Two forms of directions were used. Eight of the 13 topics were identical on both forms and did not use any generic words. On one form, five titles contained the generic *man*: "Social Man," "Urban Man," "Political Man," "Industrial Man" and "Economic Man." On the second form, the *man* titles were replaced with: "Society," "Urban Life," "Political Behavior," "Industrial Life" and "Economic Behavior."

The pictures were coded by sex composition into the following categories: "Females Only," "Males Only," "Both Males and Females Present," "No People Present," "People Present but Sex Indistinguishable" and "No Answer." Three independent judges were used for the

coding and a reliability check indicated that the judges were in agreement 94 percent of the time.

The results of the study supported the basic hypothesis: For a significant number of subjects, the generic \textit{man} means male. Approximately 64 percent of all respondents receiving the \textit{man} instructions submitted pictures of males only, while approximately 50 percent of the other subjects submitted pictures of males only. The respondents' sex did influence responses, but the data from Drake and Simpson differed from the data collected at Grandview. In the Grandview sample, women seemed to be less sensitive to the generic \textit{man} than in the other two samples. The researchers have suggested that the results may indicate that upper middle class women (Drake and Simpson samples) and working class men (Grandview sample) may be more influenced by societal expectations of sex-role appropriateness than by language.

One problem which may have affected the results of this study is that subjects were asked to bring in material from commercially published sources. Schneider and Hacker\textsuperscript{1} state that "The problem of the often disproportionately male composition of the source material was not met in this research and could have a variety of disturbing effects." However, they do not feel that the different responses of the two groups in their study were necessarily affected by this problem, since all subjects theoretically had access to the same media.

Another problem which may have affected the results, which Hacker and Schneider did not address, involves the words other than \textit{man} used

\textsuperscript{1}loc. cit., p. 15.
in the chapter titles. It is possible that words such as industrial and political could suggest males to subjects because of the socialization process which defines political and industrial activity as more appropriate for males than females.

The third study related to the use of generics was done by Harrison.\(^1\) She asked the question: "[Do] the language patterns in which our [sociology] texts refer to early humans influence the inferences drawn by students?"\(^2\) She was particularly concerned with the omission of females in discussions of early people and questioned the impact of the use of generic terms in the way students interpret early human history. Specifically, she asked whether students interpret the generic man to be equally male and female. She assumed that if man is truly a generic word, students would visualize males and females equally when the generic was used.

To answer this question, Harrison asked approximately 500 junior high school students to respond to a series of statements concerning the students' impressions of early people. The subjects were given a series of seven statements and were asked to draw illustrations that would depict early people. The subjects and their teachers were not informed of the purpose of the study. All students participated during their science classes.

Three forms of the instructions were used, the only difference in them being the terms referring to people. Only one form was used

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2loc. cit., p. 15.
in any given class. On Survey I, the generic terms man, men, mankind and he were used; on Survey II, the terms humans, people and they were used; on Survey III, men and women and they were used. Subjects were asked to name each figure drawn with a modern first name. The figures in each drawing were coded as male or female, according to the name given. When a name applied to both males and females, the figure was not counted.

The statements which were given the subjects follow, with the words underlined which were different in the three sets of instructions.

1. Draw three examples of early man and the tools you think he used in daily life.

2. When primitive men began to settle in areas rather than to roam, they began to cultivate plants. Draw three of the earliest plant cultivators at work.

3. The color of hair, eyes, and skin of an early man are usually not visible on skull remains. Draw the heads of two examples of early man, and show what color eyes, hair, and skin they had.

4. Draw two early men who had just learned the use of fire, cooking an evening meal.

5. At the dawn of civilization when mankind first started making pottery, there was probably little equipment. Draw the way you think mankind first made pottery—two examples.

6. The infants of early man were not able to care for themselves. A long period of nurturing was necessary for survival. Draw some early men (including children) showing situations of nurturing.

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1 loc. cit., p. 9.

2 ibid.
7. Suppose that on "feast days" men of good will gathered to celebrate. Draw such a group of men of good will, gathered to celebrate.

Two null hypotheses were tested: There would be no significant difference in the number of (1) males drawn to the exclusion of females, or (2) females drawn to the exclusion of males, in response to any given question on all forms of the directions. The data were analyzed using the chi-square test at the 0.05 level of significance for both hypotheses.\(^1\)

Results of this study indicate that junior high age students frequently interpreted the generic man to mean male only. First, Survey I, which used the generics, elicited more male responses from both male and female students than did either Survey II, which used terms such as people, or Survey III, which used men and women. In addition, Survey II elicited more male responses than did Survey III. Second, on all three survey forms both male and female students drew consistently more males than females. Third, male students were more likely to draw males only on all three survey forms. In fact, 42 percent of the male subjects drew male figures only for every item on Survey I, which used the generic terms. However, no student drew female figures only for all items on any survey form.

Based on this data, Harrison concluded that students' responses reflect their perceptions of females as they are presented (or not presented) through the specific language of the surveys. She also stated that the male dominance of the responses is due in part to the

\(^1\)Ibid.
language generally used in describing the development of early people, as well as sex-role stereotyping concerning the roles of women and men in society.¹

Harrison's study is a valuable contribution to the study of language usage and women's place in society. However, it does have one serious problem: The statements in the surveys offered the subjects very specific clues as to the gender of the figures they were to draw, based on what are generally accepted sex-role stereotypes in our society. For example, in statements one and two, the surveys asked students to draw pictures of plant cultivators (farmers) and users of tools, both predominantly male occupations in American society. Both male and female students in all three groups drew the greatest percentage of exclusively male figures in response to these two items than in response to any other statements. Also, item six, which dealt with child care and nurturing, elicited the largest number of female-only drawings than any other statement. Child care is most often associated with women in our culture, as is nurturing. The problem with these questions is that it is impossible to determine how much the subjects' preconceived ideas of appropriate behavior for males and females influenced their responses. It is interesting to note that while Harrison's subjects believed that women were not tool users or plant cultivators, the opposite conclusions are confirmed by fossil evidence and comparisons with modern hunting and gathering cultures.²

¹loc. cit., p. 11.
²ibid.
The setting of Harrison's study could have also had some effect on the responses of the subjects. The study was done in the subjects' regular science class and could have been perceived as a test by some of the subjects. As a result there may have been a conscious effort on the part of some of the subjects to draw the "correct" gender or to duplicate verbatim illustrations of early people from other sources.

One other element in Harrison's study could have affected the results. The questions and statements in the study required that the students demonstrate some very specific types of knowledge concerning the tools and equipment and activities of early people. Subjects lacking this type of knowledge could have been intimidated by the questions.

Statement of the Problem

Based on the preceding findings, it is possible to assume that people frequently interpret the generic use of words such as man and men and the pronouns he and his as males only. However, popular use of these words to refer to both males and females continues. This study again investigated the generic nature of the words man, men, he and his, to determine whether they are all inclusive as the term generic implies.

Hypothesis

In this study, children were asked to perform a task which involved drawing human figures. The task was based on the hypothesis that children would draw significantly more males than females when
given directions containing the generic terms man, men, he and his
than when given directions containing non-generic terms.

Several other questions were looked at in this investigation:

1. Will the responses of female and male subjects differ
   when both are given instructions using generic words?

2. Will the responses of female and male subjects differ
   when both are given instructions using non-generic
   words?

3. Will female subjects draw one sex significantly more
   often when given instructions with or without generic
   words?

4. Will male subjects draw one sex significantly more
   often when given instructions with or without generic
   words?
CHAPTER II

METHODOLOGY

In this study, nine and ten year old children were asked to draw human figures in response to a set of written instructions. The subjects were divided into two groups and two sets of instructions were used. The instructions were identical except for the words which referred to people. One set of instructions asked subjects to draw pictures of cave men and used the generic terms men, man and his. The other instruction form asked subjects to draw pictures of cave people, and used the terms people, person and their. Throughout the remainder of this paper, the group which received instructions using generic terms will be referred to as the Cave Men Group. The group which received instructions without generic terms will be referred to as the Cave People Group.

The directions given the subjects follow. Words which were different in the two sets of instructions are indicated in parentheses.

1. Read All directions before you begin.

2. In the space below, draw a picture of some cave men (people).

3. Under each cave man (person), write his (their) name. Use names everyone will know. Do not make names up.

4. DO NOT write your own name on this paper.

The terms cave people and cave men were chosen for comparison. Other examples of generic words, such as policeman and police officer, were not included in the study in an attempt to minimize the affects
of the socialization process as much as possible. It was believed that, since most policemen are in fact males, the subjects' responses might reflect that reality. The same difficulty existed with the use of many other common generic terms.

Although it is likely that the subjects have had some contact with cave people through television and/or books, they have had no first hand, personal experience with early people. Therefore, it was believed that their responses to instructions using the terms cave man and cave people would be less likely to be affected by sex-role stereotyping, by personal experience or by a conscious effort to tailor their responses to fit into a "correct" or "liberated" category than to instructions using other generic terms.

Subjects

Eighty-two students in four classrooms at a Kalamazoo elementary school were selected for the project. Thirty-five girls and 47 boys participated. The Cave Men Group contained 18 girls and 23 boys. The Cave People Group contained 17 girls and 24 boys. One classroom was a joint fourth-fifth grade room, while the other three were fourth grade rooms. Only one form of the instructions was used in any one class. Two classes received the generic instructions and two classes received the non-generic instructions. In order to counter-balance any possible effects of the administrators, one male teacher and one female teacher were in each group.

The subjects were not selected randomly, but were instead intact groups which were made available to the researcher by the school
system. While no definite statements can be made concerning the racial, intellectual or socio-economic make-up of the subjects, the Kalamazoo Public School System has been found to be in compliance with a Federal Court order mandating racial balance in every school and in every classroom. The administration also attempts to balance each classroom according to race, gender and intellectual capability at the beginning of each school year.¹

While it is not known how many subjects in the study attended the Kalamazoo Public Schools in previous years, those who did attend Kalamazoo Schools in grades K-3 had no formal education in the development of civilization prior to the study. Therefore, it was believed that their responses would be relatively uncontaminated by prior study of the subject of cave people. The subjects were, in the opinion of their teachers, all capable of reading the directions and following directions independently.

Pretest

The instruction sheets were pretested with a class of 23 fourth grade students at another elementary school. Two sets of the instructions were used. The directions, with the words which were different in the two sets underlined, follow: "Draw a picture of some cave-people (cavemen). Under each caveperson (caveman) write their (his) name(s). Use modern first names only--do not make names up."

¹From a conversation with Dr. Peter P. Wallus, Coordinator of Categorical Aids and Director of the Emergency School Aid Act, Kalamazoo Public Schools, May 21, 1979.
Alternating rows of children were given each set of the instructions. The subjects were asked to read the directions and to work completely on their own, without asking for help from the researcher, teacher or fellow students. It was explained that there were no right or wrong answers.

The pretest highlighted some problems and potential problems with the methodology. One set of directions asked for pictures of cave-people (all one word), which several children could not read. Therefore, the term was changed to cave people (and cave men) on the final instruction sheets. Another child did not know the word modern, so the phrase "names everyone will know" was substituted. During the pretest, the subjects were allotted 20 minutes in which to complete their drawings. Since most of the children finished within 10 minutes, the final testing time was set at 15 minutes.

Two other issues arose during the pretest. The need to use only one instruction form in each classroom was demonstrated during the pretest when two subjects questioned why they were given different instructions. The most serious problem, however, involved management procedures during the testing. Because the subjects knew that the drawings were not to be graded and were being done as a favor for someone outside the school, they did not take the project seriously. Although they were told not to ask questions or to talk to each other, they did in fact do both. Their comments aloud during the study would have seriously jeopardized the results. Therefore, the actual study was changed from an art project to be directed by the art teacher, as originally planned, to a "special project" led by the regular classroom.
teacher, who was believed to have more disciplinary control of the subjects.

Teacher Training Sessions

The teachers and the school principal met with the researcher to discuss procedures prior to the testing. (See Appendix B.) The teachers were not told the purpose of the research, but were told that the project was part of a master's thesis and had been approved by the Kalamazoo Public Schools Department of Data Services. The researcher announced that the results of the project would be available to the teachers at the completion of the project.

Procedures were then explained and teachers were provided a script to read to subjects during the investigation. They were not shown the students' instruction sheets, however. The teacher script follows:

Your class has been selected to take part in a very important special project. Your teacher will give each of you a sheet with a set of directions on it. Do not write your name on this sheet. Read all the directions very carefully before you begin. Do not ask for help from your teacher or other students. Simply do what you think you should do and do not discuss your work with anyone else. You will have 15 minutes. You may begin as soon as you receive your sheet. Use a pencil or pen or whatever is at your desk.

(TEACHER HAND OUT SHEETS)

Remember to do the best you can, but do not worry—you will not be graded. Remember—no questions or comments.

(TEACHER WAIT 10 MINUTES)

You now have 5 minutes left.

(TEACHER WAIT 5 MINUTES)
Your time is now up. (TEACHER PAUSE FOR JUST A MINUTE)
Turn your paper over. (TEACHER WAIT UNTIL ALL ARE TURNED)
On the back of your paper write girl if you are a girl and
boy if you are a boy. Do not write your name. Pass your
papers to the teacher.

The importance of all teachers following this script word for
word without improvising, rephrasing or adding or deleting anything
was emphasized. The importance of students not asking questions or
making comments during the project also was discussed.

A day and time were set for the testing. Although an exact time
could not be agreed upon, all teachers agreed to test their students
within the first hour of one day, before any of the students left
their rooms for art, music, gym, library, reading or other special
classes, to minimize the possibility of subjects' discussion of the
project.

Procedures

On the day of the study, one teacher was ill. Since the
researcher did not want a substitute teacher to administer the test,
an instructional specialist who was well-known and well-liked by the
students was recruited by the principal and trained by the researcher.
Teachers announced that the class had been selected to take part in a
very important special project. They then read subjects' instructions
directly from the script for teachers.

They announced that subjects would each receive a sheet with
written instructions on it. The students were told to read all direc-
tions carefully before beginning, and not to put their names on their
sheets. They also were told not to ask questions of the teacher or
other students, and to do their own work, following the directions as carefully as possible. The subjects were told that they would have 15 minutes to complete their task and could begin as soon as they received their directions. They also were told to use the pencil or pen at their desks.

The teachers handed out the subject direction sheets, and asked the subjects to do the best they could. They also told the students that the papers would not be graded. After 10 minutes, teachers announced that there were 5 minutes left. Upon completion of the drawings, teachers told subjects to turn their papers over and to write on the back of the paper whether subject was a girl or a boy. Again they were told not to write their names. All papers were passed to the teachers.

Judging

Each picture was coded to indicate which set of directions was used and was assigned a number at random after the drawings were made. Each figure on each page also was assigned a number. All drawings were given to two independent judges, one male and one female, who did not know the purpose of the drawings, with instructions to determine the gender of each figure drawn. Since the subjects' directions were on the same sheets as the drawings, the direction portion of each sheet was cut off before the judges received the drawings. Judges received a short briefing describing how to determine the gender of figures in children's drawings. They received a judge's packet containing a direction sheet, four tabulation sheets, a sample
drawing and an explanation sheet describing how to interpret the sample drawing. (See Appendix D.)

The direction sheet introduced the judge's task, and gave specific directions for filling in the tabulation sheet. In the first column, the drawing letter and number were recorded. The gender of each figure was then recorded in columns two through ten. Specific criteria were given the judges for determining gender: Names assigned by the artist were to be the primary clues. When a name could apply to either sex, even with a variation in spelling, judges were told to use clothing differences, facial or body hair, and other outstanding physical attributes as gender clues. Judges were instructed not to use the activity of the figure as a clue. For example, it was pointed out that rocking a baby does not indicate femaleness, as carrying a club does not indicate maleness. When in doubt, judges were instructed to label those figures "unknown."

In the final column, judges recorded the gender of the artist. Judges were instructed to record results from the two groups separately and in numerical order, for ease in tabulating results. When the two judges differed regarding the gender of a figure, a third judge was asked to label a figure male, female or unknown. If two of the three judges agreed, the figure was included in the tabulations. When there was three-way disagreement, the figure was not used in the study. Although the third judge knew that she was acting as a "tie-breaker," she did not know how the previous judges had labeled any of the figures.
CHAPTER III

RESULTS

In tabulating the results of this research, only figures which judges determined to be male or female were included. Those which were determined to be "unknowns" and those which two of the three judges could not agree on were eliminated from the study. One drawing which contained no people also was eliminated, as was one figure which the first two judges disagreed on and the third judge inadvertently left out of her tabulations.

The first two judges agreed on the gender of 87 percent of the figures drawn, or 227 of 284 total figures drawn in the study. After the third judging, there still was no agreement between the judges as to the gender of 18 figures, or approximately 6 percent of the total figures drawn.

The data consisted of frequency counts of the number of male and female figures drawn by the subjects in the two experimental conditions. A corrected chi-square test was used to test the hypothesis and the questions.¹

The hypothesis that children would draw males significantly more often than females when given directions using generic terms than when given directions using non-generic terms was supported. It was found that in the Cave Men Group, 82 percent of the total figures drawn,

drawn were male and 18 percent were female. In the Cave People Group, 63.5 percent of all figures drawn were male and 36.5 percent were female. These figures are recorded in Table 1. The difference in these figures is significant ($x^2 = 10.63506$, df = 1, $p = 0.00111$).

Not only were more males drawn by subjects in the Cave Men Group than in the Cave People Group, but there were more male figures than female figures drawn throughout the study.

Table 1
Total Figures Drawn in Survey (By Group)

<table>
<thead>
<tr>
<th>Group</th>
<th>Male Figures Drawn</th>
<th>Female Figures Drawn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cave Men Group</td>
<td>82.0%</td>
<td>18.0%</td>
</tr>
<tr>
<td>Cave People Group</td>
<td>63.5%</td>
<td>36.5%</td>
</tr>
</tbody>
</table>

Note. Probability = 0.00111.

Four other questions were investigated in this study. The first one was: Will the responses of female and male subjects differ when both are given instructions using generic words? It was found that within the Cave Men Group, girls' and boys' responses were found to differ significantly ($x^2 = 6.01776$, df = 1, $p = 0.01416$). Boys drew male figures 91 percent of the time compared to girls who drew males 73.6 percent of the time. Boys in the Cave Men Group drew females only 9 percent of the time, while girls drew female figures 26.4 percent of the time. Table 2 contains these figures.
Table 2

Cave Man Group Responses

<table>
<thead>
<tr>
<th></th>
<th>Male Figures Drawn</th>
<th>Female Figures Drawn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys' Responses</td>
<td>91.0%</td>
<td>9.0%</td>
</tr>
<tr>
<td>Girls' Responses</td>
<td>73.6%</td>
<td>26.4%</td>
</tr>
</tbody>
</table>

Note. Probability = 0.01416.

The second question investigated in this study was: Will the responses of female and male subjects differ when both are given instructions using non-generic words? Within the Cave People Group, it was again found that the responses of girls and boys were significantly different ($x^2 = 10.43823$, df = 1, $p = 0.00123$). Of the total figures drawn by boys, 76.8 percent were male, while 47.4 percent of the total figures drawn by girls were male. Of the figures drawn by boys, 23.2 percent were female, while 52.6 percent of the figures drawn by girls were female. These figures are presented in Table 3.

Table 3

Cave People Group Responses

<table>
<thead>
<tr>
<th></th>
<th>Male Figures Drawn</th>
<th>Female Figures Drawn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys' Responses</td>
<td>76.8%</td>
<td>23.2%</td>
</tr>
<tr>
<td>Girls' Responses</td>
<td>47.4%</td>
<td>52.6%</td>
</tr>
</tbody>
</table>

Note. Probability = 0.00123.
The third question investigated in this study was: Will female subjects draw one sex significantly more often when given instructions with or without generic words? It was found that girls in the Cave Men Group drew significantly more males than girls in the Cave People Group ($x^2 = 8.22028, \text{df} = 1, p = 0.00414$). In the Cave Men Group, 73.6 percent of all figures drawn by girls were males, and 26.4 percent were female. However, in the Cave People Group, only 47.4 percent of all figures drawn by girls were male, while 52.6 percent were female. These figures are presented in Table 4.

Table 4
Female Subjects' Responses
(By Group)

<table>
<thead>
<tr>
<th>Group</th>
<th>Male Figures Drawn</th>
<th>Female Figures Drawn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cave Men Group</td>
<td>73.6%</td>
<td>26.4%</td>
</tr>
<tr>
<td>Cave People Group</td>
<td>47.4%</td>
<td>52.6%</td>
</tr>
</tbody>
</table>

Note. Probability = 0.00414.

The fourth question investigated in this study was: Will male subjects draw one sex significantly more often when given instructions with or without generic words? Boys' responses also were found to be significantly different between the two groups ($x^2 = 4.08311, \text{df} = 1, p = 0.04331$) although the difference is not as great as that found in the girls' responses. Boys in the Cave Men Group drew male figures 91 percent of the time and female figures only 9 percent of the time.
In the Cave People Group, 76.8 percent of all figures drawn by boys were male and 23.2 percent of all figures drawn by boys were female. Table 5 contains these figures.

Table 5

Male Subjects' Responses
(By Group)

<table>
<thead>
<tr>
<th>Group</th>
<th>Male Figures Drawn</th>
<th>Female Figures Drawn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cave Men Group</td>
<td>91.0%</td>
<td>9.0%</td>
</tr>
<tr>
<td>Cave People Group</td>
<td>76.8%</td>
<td>23.2%</td>
</tr>
</tbody>
</table>

Note. Probability = 0.04331.
CHAPTER IV
DISCUSSION

Summary

This study was based on the hypothesis that English generic terms, such as man, men, he and his do not refer equally to both females and males, as speakers of the English language presume. It was predicted that children would draw male figures significantly more often than female figures when given directions using generic terms than non-generic terms, provided other sex-role clues were eliminated. To test this hypothesis, 82 nine and ten year old children were asked to draw pictures of human figures. One group of children was given directions using the generic cave men and other generics. The other group was given directions using the non-generic cave people and other non-generic terms.

The hypothesis was supported by this study. Data from the investigation indicate that subjects in the Cave Men Group drew significantly more male than female figures than did subjects in the Cave People Group. Other trends which were evident from this study are:

1. More male figures than female figures were drawn by subjects in both groups throughout the study.

2. There were significantly more male figures drawn by subjects in the Cave Men Group than in the Cave People Group.

3. There were significantly more female figures drawn by subjects in the Cave People Group than in the Cave Men Group.
4. Girls in both groups drew more female figures than did boys; however, overall, the girls drew more males than females.

5. Boys in the Cave People Group drew approximately two and one-half times as many female figures as boys in the Cave Men Group.

6. Girls in the Cave People Group drew twice as many female figures as girls in the Cave Men Group.

Because the directions given to the two groups were identical except the words referring to people, it is possible to assume that the difference in the two groups' responses is due at least in part to the language used in the directions. The results suggest that nine and ten year old children, especially males, do not generally interpret the generic words cave man, cave men, and his to include both females and males. Rather, the subjects generally interpreted the generic words as male figures. The subjects did, however, often include both males and females in the terms cave person, cave people, and their. Regardless of the directions given, more male figures were drawn by both males and females in the study which suggests that children generally think of all human beings as male unless specifically labeled female. The results of this study are consistent with those of Harrison,1 Schneider and Hacker,2 and Nilsen.3

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1 Harrison, op. cit., pp. 10-11.
Implications

This study and others preceding it suggest that children do not include females in their definitions of words ending in man. Therefore, according to Marshall:¹

'The use of man is misleading and inaccurate; conceptually, the image conveyed is that of a male human being. . . . The use of sex-linked words is an overt limitation on women's role. [It] denies the fact of, and calls into question the appropriateness of, women's involvement in such activities.

Strainchamps² states that "words acquire their connotations by reflecting the sentiments of the dominant group in a society--in our case, white Anglo-Saxon males." She concludes that as long as men in American society believe that women are inferior beings the language will continue to reflect that belief.³ Her ideas mirror the beliefs of linguists who state that language simply reflects the structure of society. Lakoff,⁴ for example, states that "social change must precede lexical change." This narrow interpretation of the relationship between language and society is predicated on the assumption that a horizontal, cause-effect relationship exists: that is, society creates language and language merely reflects society. Marshall,⁵ however, recognizes the reciprocal role of language and society when

¹Marshall, op. cit., p. 4.
³loc. cit., p. 361.
⁴Lakoff, op. cit., p. 42.
⁵Marshall, op. cit., p. 4.
she states that "they have grown up together, constantly influencing each other." Turner\(^1\) also identifies that relationship when she states that "Language both reflects reality and shapes our ideas of reality."

Language patterns, once identified as undesirable, are not easily changed. Marshall\(^2\) calls language "the mass mind; it is affected . . . little and slowly." However, it does change. New words like astronaut are created to describe new concepts and ideas; old words like yeoman are dropped from usage when they no longer are needed. Language changes as society changes, but it may also become reinforcement and even the stimulus for change. For example, during the civil rights movement of the 1960's and 1970's, words used to refer to members of the Negro race changed drastically in popular acceptance. Nigger was dropped from social usage, and Negro was replaced by Black. It became socially unacceptable to refer to an adult Black man as boy. Words which refer to women also can change. Eventually, it may be recognized that it is also demeaning to refer to an adult woman as girl.

There are many words in the English language which can be used to refer to women which do not, by implication, make women appear either inferior or invisible. Generic words such as man and mankind can easily be replaced by people, humans or humanity. The male pronouns he and his can generally be avoided by using plural antecedents.

\(^1\) Turner, op. cit., p. 248.

\(^2\) Marshall, op. cit., p. 4.
When that is not possible, Turner suggests using the word one or even the plural pronoun they to refer to a singular antecedent. Words which refer to occupations can be changed to describe the job itself rather than the person who performs it. For example, congressman could be representative, policeman could be police officer, mailman could be mail carrier. One test of whether a word is sexist or not is to change the ending from man to woman and then to apply it to both sexes. If it is inaccurate to refer to a male as the chairwoman of a committee, it follows that it is inaccurate to refer to a female as the chairman. An easy way to avoid the problem is to refer to both as the chair or chairperson. Rarely are new words needed to solve the problem of sexist usage. The words are there; people must choose to use them.

As society changes to recognize the dynamic role of women in every phase of American life, the English language and the use of it also will change. If language reflects the power structure of the society, as many think it does, it must also reflect the changing nature of the power structure in America. As Turner states, "English might well accommodate itself to the increasingly visible female, acknowledging that she is not, by her gender, an exception in the affairs of life."

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1 loc. cit., p. 251.

2 ibid.
Recommendations

Future investigation into the way English-speaking people interpret generic words and pronouns is warranted. This study had several limitations which could be addressed in further studies on the subject.

The sample size in this study is very small (82), and could be expanded in future studies. It would be beneficial in future studies to increase the sample size to include various age groups to determine whether age of the subjects affects the results. Further, subjects for this study were only available in predetermined groups and were not a random sample of nine and ten year old children in the Kalamazoo Public Schools. No breakdown of ethnic origin, socio-economic status or intellectual capabilities was available for subjects in this study. It would be interesting to analyze that data for trends.

More and different stimulus words such as mailman, policeman or congressman, as well as caveman, could be used in future studies. Although caveman was chosen because of the subjects' relative lack of contact with the term, it is possible that the results could be related to the subjects' prior knowledge of cavemen.

Factors other than language could have affected the results of this study. Elementary and secondary science textbooks generally refer to early people in terms such as man, men, cavemen and other generics but rarely refer directly to females or their role in the development of civilization. Further, textbook illustrations

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1Harrison, op. cit., p. 8.
depicting early people are dominated by pictures of males. The male bias of these materials, the accepted use of generics when referring to people, and the dominance of males in American society, as well as in the English language, may have influenced the subjects to draw more males regardless of the directions given in the study.

\footnote{Miller, op. cit., p. 107.}
REFERENCES


APPENDICES
Appendix A

Subjects' Directions

Cave Men Group

1. Read All directions before you begin.

2. In the space below, draw a picture of some cave men.

3. Under each cave man write his name. Use names everyone will know. Do not make names up.

4. DO NOT write your own name on this paper.

Cave People Group

1. Read All directions before you begin.

2. In the space below, draw a picture of some cave people.

3. Under each person, write their names. Use names everyone will know. Do not make up names.

4. DO NOT write your own name on this paper.
Appendix B

Agenda—Teacher Training Session

1. Explain that the research project is part of master's thesis and has been approved by the Kalamazoo Public Schools and the principal.

2. Students will be asked to draw some pictures. They will receive an instruction sheet with a space for drawing. They should use pencils, pens or whatever they have at their desk for the drawings.

3. Explain that the researcher will be willing to explain the whole project in detail after the actual research has been completed, if they wish.

4. Ask teachers to all schedule the research for the same time and day. Explain the necessity of the children not discussing the project with children in other classes.

5. Hand out instruction sheets to be read to students by teachers. Emphasize importance of all teachers following this sheet word for word without improvising or rephrasing into their own words.

6. Emphasize absolute importance of students not asking questions or making any kind of comments about the project if at all possible. Any kind of discussion could jeopardize the whole research. If a student starts to ask something, attempt to cut them off very quickly.

7. It is important for the teacher to watch what the kids are doing at all times and to deal with any irregularities firmly and immediately.

8. Answer teacher's questions concerning procedure.

9. Set day and time for research.
Appendix C
Teachers' Script

Your class has been selected to take part in a very important special project. Your teacher will give each of you a sheet with a set of directions on it. Do not write your name on this sheet. Read ALL the directions very carefully before you begin. Do not ask for help from your teacher or other students. Simply do what you think you should do and do not discuss your work with anyone else. You will have 15 minutes. You may begin as soon as you receive your sheet. Use a pencil or pen or whatever is at your desk.

(TEACHER HAND OUT SHEETS)

Remember to do the best you can, but do not worry—you will not be graded. Remember—no questions or comments.

(TEACHER WAIT 10 MINUTES)

You now have 5 minutes left.

(TEACHER WAIT 5 MINUTES)

Your time is now up. (TEACHER PAUSE FOR JUST A MINUTE)

Turn your paper over. (TEACHER WAIT UNTIL ALL ARE TURNED OVER)

On the back of your paper write girl if you are a girl and boy if you are a boy. Do not write your name.

Pass your papers to the teacher.
Appendix D

Judges' Packets

Directions for Judges

You are being given a group of drawings done by school children. Your task is to determine the gender of each of the figures in each drawing, using a specific set of criteria to make the determination. A sample drawing and its interpretation are attached for your reference. Use the attached judge's tabulation sheets to record your conclusions.

In the first column, record the drawing letter and number, found in the left hand corner of the drawing.

Determine the gender of each figure in the drawing using the following method: First look at the name assigned each figure by the artist. Use it as your primary clue for determining gender.

When the name does not clearly indicate male or female (for example, Bobby, Kim, Billy, and Jerry could be names of males or females with slight variety in spelling) use clothing, facial or body hair, and other outstanding physical attributes, such as presence of breasts, as gender clues.

DO NOT USE THE ACTIVITY OF THE FIGURE AS A CLUE. Holding or rocking a baby, for example, does not make an otherwise neutral figure necessarily female. Likewise, carrying a club or hunting does not necessarily indicate maleness.

If there is any doubt as to the gender of a figure, do not guess. Instead, label that figure "unknown." Do not mark on the drawings.

In the columns marked Fig. 1 through Fig. 10, record the gender of each figure: M (male), F (female), or U (unknown).

In the final column, record the artist's gender, found on the back of each drawing. Write out the word boy or girl.
<table>
<thead>
<tr>
<th>Drawing number and letter</th>
<th>Fig. 1</th>
<th>Fig. 2</th>
<th>Fig. 3</th>
<th>Fig. 4</th>
<th>Fig. 5</th>
<th>Fig. 6</th>
<th>Fig. 7</th>
<th>Fig. 8</th>
<th>Fig. 9</th>
<th>Fig. 10</th>
<th>Artist's gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-sample</td>
<td>F</td>
<td>M</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Boy</td>
</tr>
</tbody>
</table>
Draw a picture of some cavepeople. Under each caveperson, write their names. Use modern first names only—do not make names up.

Fig 1
Mary

Fig 2
Ron

Fig 3
Dele
Interpretation of Judges' Sample Drawing

In the attached sample, three figures have been drawn. They have been labeled Fig. 1, Fig. 2, and Fig. 3. By using names as the first clue, one male and one female can readily be identified. However, the third figure is named Dele, which is neither inherently male or female. We could guess that the artist meant Dale or Dell, but we do not know for sure.

The next clue to consider is clothing. Mary and Dele are dressed identically, so therefore clothing cannot be used as a determining factor. Dele does have one thing in common with Ron that Mary does not share—hair on the chest and arms. Dele can, then, be labeled a male figure.

Line one on the judges' tabulation sheet is filled in properly for the sample drawing.