Experimental study of the relationship of persuasibility to male-female involvement with message topics

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AN EXPERIMENTAL STUDY OF THE RELATIONSHIP OF PERSUASIBILITY
TO MALE- FEMALE INVOLVEMENT WITH MESSAGE TOPICS

By

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CHAPTER I

INTRODUCTION

General Considerations

Our knowledge of social behavior suggests that a great deal of human interaction involves the intentional efforts of communicators to change the attitudes of others. One of the goals of communication research, therefore, is to develop an understanding of this persuasive process so that communicators can more accurately predict probable outcomes of their efforts.

This study will consider two variables in the process of persuasion: the relationship of message topics to the responses of the message receivers during persuasive communication.

In attempting to understand the process of attitude change, one theoretical conception is derived from learning theory which views man as a rational, information-processing organism who can be motivated to perceive messages, learn the message's content, and incorporate the information into his scheme of responses. The instrument for change in this system is the formal, structured message which relates to the outcome according to the receiver's
perception of the logic, or potential reward for agreeing with the message (Zimbardo, 1969, p. 16).

The reception that receivers give to any given message, therefore, depends particularly on the attributes of both the message and the receiver. The ability to predict outcomes of persuasive attempts depends on our knowledge of the influential attributes, or characteristics of both the message and the audience.

Receiver Characteristics

Within the study of persuasive communication, serious attention has been given to receiver characteristics which are generally referred to as "persuasibility factors." Analysis of the nature of these characteristics can be facilitated by placing them into four categories: (1) the ability to understand a persuasive communication, resulting primarily from levels of intelligence; (2) personality traits relevant to acceptance of the message, such as self-esteem, dogmatism and authoritarianism; (3) general motivational traits, such as anxiety and involvement; and (4) demographic traits, such as sex, age, ethnic origin, and once again, intelligence (Zimbardo and Ebbesen, 1969, p. 17, and Bettinghaus, 1968, p. 31).

Two key communication research problems associated with these variables, according to Bettinghaus, have been:
(1) Do the variables as they relate to a given population combine to form any consistent factor of "general persuasibility?" and (2) Does membership in any identifiable population make it more probable that a persuasive message of a particular type will be received favorably? (1968, p. 31). This study will consider the second of these two questions, in relation to male and female receivers.

Sex Differences in Persuasion

The available evidence is far from clear regarding the significance of sex differences in persuasibility. A number of experimenters consider sex an important variable for analysis in persuasion, while others report sex as having little effect on their experimental results. It might be assumed that the biological sex of the subject, since it requires little effort in measurement, would be a frequently studied variable. Research in persuasion, however, has apparently not studied sex differences as exhaustively as would be expected. Kemp, for example, in a search of the literature, located only nineteen studies which examined sex differences in persuasion (1967, p. 1). Carlson and Carlson, in a survey of studies related to the sex variable generally, appeared to be in agreement with this view. They noted there has been few research studies in which the sex variable has been observed, based on their examination of nearly 300 empirical studies concerned with personality and social problems, as reported in the fourteen consecutive
issues of the *Journal of Abnormal and Social Psychology*, Volumes 56-60 (1960, p. 182).

The Carlsons concluded that (1) males were employed far more often than females as experimental subjects, (2) sex differences, even where possible, were in fact seldom tested, and (3) sex composition was inadequately and ambiguously reported in many of the research reports under investigation.

Other researchers have concluded that the sex variable has been frequently considered. Scheidel has written that "numerous studies have touched upon the relationships between sex and attitude change . . ." (1963, p. 357). Cronkhite (1969), Bettinghaus (1968), and Thompson (1967) have indicated similar views.

In addition to the discrepancies on quantity, disagreements also exist as to the specific implications of results of persuasibility studies employing the sex variable. Scheidel noted that

Although some investigators have found no relationship between these variables, the great majority have found a significant sex difference in responsiveness to persuasive appeals (1963, p. 357). Cronkhite concurred, noting that "the evidence seems to indicate overwhelmingly that women are generally more persuasible than are men . . . ." (1969, p. 136). Some researchers therefore appear to believe that sex differences do exist, and that the female is the more persuasible;
however the literature reviewed in the present study indicates that the conclusion is far from a consistent one.

Conceptual Framework of Sex Persuasibility Studies

Perhaps the primary problem associated with studies of sex differences lies in the various theoretical and conceptual frameworks offered as explanations when an observed sex difference is found. A number of different relationships between sex persuasibility and other variables are found in the literature, including such variables as personality, channels used for communication, message effects, receiver characteristics, and so on. To achieve some amount of conformity in reporting these studies, the following classification of variables was developed.

A Classification of Relevant Variables

In examining the literature relevant to this experiment, it was determined that variables of past studies could be classified under the principal headings used in a variety of models of the communication process. Since the principal concern of this study is with receiver characteristics, the headings were ordered in a receiver-communication model as follows: receivers, environment, message, channel, and source. These elements represent a conceptual model of the communication process focusing on the receiver: The receiver is in a given environment when receiving a
persuasive message, through a certain channel, and from a given source. These elements closely parallel the major variables examined in relationship to comparative sex persuasibility. Independent variables have included elements drawn from the source, the message, the channel (media), the environment, and receiver characteristics, such as sex, while the dependent class of variables has included various measures of receiver responses.

Table 1 lists the specific variables examined in relation to sex persuasibility, as found in a search of the literature. These variables are categorized under the variable classes established in the receiver-communication model. The variables in the table are by no means all-inclusive, but are representative of the past studies in which variables were examined in relation to sex persuasibility. The remainder of this chapter discusses a number of the studies listed in Table 1.

A Review of Related Research

Receiver Characteristics

Personality traits

A generally held conclusion drawn from psychological studies is that the sexes clearly differ in personality traits. Tyler has noted that few research workers would at present question the existence of personality differences between the sexes. What they are more interested in now is
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<sup>a</sup>Studies and topics are summarized in Appendix A
their sources. At first, questions about the origin of sex differences were usually formulated in some simple "either-or" manner -- for example, "Are differences biological or social?" But we have come to realize that such statements are far too simple. Sex differences are both biological and social (1963, p. 97).

Personality factors studied by Janis and Field (1959), showed significant correlations for males, but not for females in a study of adolescent persuasibility. The pattern suggested that differences in persuasibility may prove to be more predictable as a function of personality factors for males than for females, at least in adolescent stages.

Janis and Field found the female to be generally more persuadable than the male, and suggested the following possible explanation for their results:

If studies of the relationship between persuasibility and personality factors continue to show marked differences between males and females, it may be useful to assume that there are at least two broad classes of predispositional variables affecting an individual's persuasibility. One class involves personality factors, while the other concerns cultural sex-typing influences which produce more or less stereotyped differences between male and female role behavior in our society (1959, p. 67).

Value differences

Allport, Vernon and Lindzey (1960) reported value differences were found between the sexes. Women were found to score higher on aesthetic, social, and religious values, while men scored higher on theoretical, economic and political values. Diggory (1962) reported similar differences in attitude frameworks between the sexes. Women's attitudes
in regard to social issues were more closely organized around institutional norms than were men's attitudes. Rocheach (1970) has argued that attitudes stem from individual value sets, which if related to the above value differences, might establish a basis for sex differences in persuasibility.

Masculinity-femininity

Whittaker (1965) investigated, as one of his hypotheses, the relationship of masculinity-femininity as a variable of persuasibility. He proposed that

... male subjects who are highly persuasible will show more feminine personality characteristics than less persuasible males, and that female subjects who are low in persuasibility will show more masculine personality traits than highly persuasible females.

Using the persuasibility test developed by Janis and Field (1959), the Whittaker study reported that the masculinity-femininity hypothesis could not be upheld. No significant difference was found on either of the two male-female scales used in the study.

Kemp (1967) also conducted a similar study, "to investigate the masculinity-femininity variable as a personality variable, and attempt to observe its relationship with persuasion" (p. 12). The results were in agreement with the Whittaker study and appeared to strengthen Whittaker's results. Neither study could obtain a significant difference between persuasibility scores and the masculinity-
femininity scores of the subjects as grouped by sex in the studies.

Environmental Effects

Other factors related to the communication model are classed as environmental effects. These have included both field and experimental studies.

Environmental determinants of persuasibility

A difference in persuasibility is not necessarily a result of biological differences, but perhaps of environmental variables which have resulted in different learning histories. King (1959) reported findings related to the latter variable; however, although females were found more persuasible, no significant differences appeared when comparing the persuasibility of males and females with environmental variables. These included general home adjustment, perception of parental aggression, and perception of parental rejection. King did find a relationship, for females only, between susceptibility to majority opinion and parental domination. Girls with highly perceived parental domination scores were, to a statistically significant degree, more susceptible than were girls with a low parental domination score. King said the relationship did not appear to be a simple one, but rather "an interaction of parental domination, susceptibility, and sex" (1959, p. 215).
A study of persuasibility in relation to estimated majority opinion was also conducted by Sawyer (1955). The general hypothesis predicted that persons persuaded by an argument were those who perceived a relatively small difference between the attitude of the speaker and the attitude of the majority. In this study, however, sex groups did not differ in shifts of "own attitude" scores. There were age differences between these two majority-opinion studies, which might account for the differences in findings: King's subjects were high school students, while Sawyer's study involved college subjects.

Sawyer did report that persons persuaded by the argument altered their mean estimate of the majority attitude to a significantly more favorable position. Those not persuaded, did not significantly alter their mean estimate of the majority attitude.

Effects of the experimental environment

A different kind of effect was examined in several studies reporting results measuring the direct environment of the communication situation. Furbay (1965) examined audience seating arrangements and their effects upon persuasibility. He reported that in the combined data for all seating arrangements, women were more willing to change their opinion than were men.
Knower (1935) incorporated the effects of the speaking situation on the results of persuasive message treatments. Men were less influenced by the situation than were the women.

Field simulation

Strodbeck and Mann (1956) tested sex persuasibility under simulated conditions of jury deliberations. Earlier persuasibility studies, they noted, had relied extensively on college students in classroom or experimental environments. Strodbeck and Mann used actual jurors, selected through the usual civil process, as an important departure from the earlier studies. The researchers reasoned that since the subjects were "fully established in their sex and occupational roles," if structural variables such as sex are important determinants, the jurors should be "maximally favorable" to identifying the relationships involved. Under these conditions, the female members of the jury were significantly higher in "positive reaction" responses than the males. The authors suggested that the women might have been generally less competent than men to discuss the issues of their deliberations (negligence and damages), which might account for the differences in persuasibility.

A different type of environmental simulation was studied by Greenwald (1965), which used the subject of learning preferences for the persuasive treatments. The
study attempted to tie the expressed beliefs to actual behavior, using seventh and eighth grade students in their classrooms. The subjects first expressed their preferences, then participated in actual learning experiences, using the material of their stated preference. This was followed by messages advocating the importance of one of two types of learning experiences in contrast to the other type. The subjects then again rated their beliefs and proceeded to again work problems of their choice, employing one of the two learning experiences. In the four experiments which were conducted, males and females demonstrated no persuasibility differences.

Message Characteristics

The content of a persuasive message can include appeals, arguments, and various stylistic features, in addition to the principal theme, or conclusion which defines its topic (Hovland and Janis, 1959, p. 9). The following studies have investigated these features with respect to comparative sex persuasibility.

Logical-emotional presentations

Cronkhite (1961) conducted a study to determine "whether or not a listener's scholastic aptitude might predict his reaction to speeches having differing amounts of logical and emotional content." (p. 16). Such knowledge might provide speakers with experimental data to determine
how to change the proportions of emotional and logical content of speeches to adapt to audiences of different intellectual levels. It has hypothesized that a significant positive correlation would exist between scholastic aptitude and response to persuasion by logical appeal, and that a significant negative correlation would exist between scholastic aptitude and response to persuasion by emotional appeal.

The two stimulus messages for this study both proposed the adoption of a Federal plan of compulsory health insurance. Cronkhite noted that obviously, neither message could claim completely separated logical and emotional content. The dominant characteristics of each message were validated by expert opinion.

None of the hypotheses relating scholastic aptitude and persuasibility was supported by the experiment, and it was concluded that the general theory of correlations of message content and scholastic aptitude could not be supported.

Cronkhite investigated several additional questions, one of which related specifically to sex differences. He explained in advance of the reported findings . . . that the experiment was not designed to answer these questions, and the experimenter advanced no hypotheses concerning the questions prior to the study. Therefore the results of these additional investigations should be considered only as indicative of possible directions for further research
rather than as evidence of differences which do or do not exist (1961, p. 53).

The additional investigation into differences between the sexes showed

significant evidence that the men of the experimental group were more persuaded by the logical speech than were the women, and the other results of the investigation of the differences in persuasibility of the sexes, although not significant, were consistent with this finding (1961, p. 65).

The women showed higher persuasibility scores for the emotional speech than the men, although this difference was not found to be significant.

In a similar study, Cathcart (1955) tested the relative effectiveness of four methods of presenting evidence in oral communication, and reported the results indicated

Audience responses to a variable such as evidence and the way that it is used in a speech has very little to do with the sex, educational level, speech training, or the subject matter knowledge of the auditors (p. 232).

Cathcart also noted that although no significant differences could be accepted for the experimentally treated factors, there was a significant difference in the distribution of original opinion in the different sexes. The proneness to shift from these opinions, however, indicated no difference between males and females. The subject of the persuasive messages used in the experiment was capital punishment.

Specific topics

Studies of persuasibility, for the most part, have
employed specific topics in testing the persuasibility variables under specific consideration in each study. Numerous topics and approaches have been utilized in studies making sex comparisons, as represented in part, by the following studies.¹

Propaganda

Bateman and Remmers (1941) used propaganda about a social institution in their measure of persuasibility. The experiment attempted to shift attitudes of high school groups first away from, and then back in favor of, labor unions. The resulting shifts were reported as substantial, with "a more decided shift showing for the girls in their average attitude . . . than for the boys' average shift" (p. 402). Wegrocki (1934) tested the effects of propaganda on children's attitudes on a variety of subjects, such as Catholics, Wilson, German, Lenin, and others. The subsequent exposure to written propaganda and then retesting showed, on the average, greater shift of attitude for the girls than for the boys. An additional finding reported that the girls shifted more in the direction of liking, while the boys shifted more toward hating.

¹Studies discussed elsewhere in this chapter are not repeated under this heading, except when considered necessary. A summary of message topics and specific sex persuasibility results for all relevant studies appears in Appendix A.
Warfare

Cherrington and Miller, also in an early study (1934), tested the relative persuasibility of college students toward the subject of war. The results showed no significant difference between the variability of attitudes between men and women.

Crime-related topics

Using the topic of abolishment of capital punishment, Cathcart (1955) found pretested opinions varied significantly between males and females, however, no difference in variability was observed from these initial positions. The topic of Juvenile delinquency was used by Kaufmann and Feshbach (1963) in an experiment using male and female university students. An analysis of the data for sex differences in persuasibility failed to reveal any significant difference.

Sex-related topics

A study by Kirkpatrick, Stryker and Buell (1952), utilized the Kinsey report to determine male and female attitudes toward male sex practices. The experiment utilized a pretest of attitude, followed by a detailed message report of certain Kinsey findings, and a posttest measure of changes in attitudes. The results reported a significant difference in the way information was received by men and women. Women showed greater amounts of attitude change.
Bergin (1962) tested 60 freshmen males and females on a topic which appeared to lead to extremely high involvement by the experimental subjects. In the environment of a psychologist's office, individual subjects, during several visits, completed a number of psychological tests and were also asked to evaluate themselves on a number of items, including each subject's perceived level of masculinity-femininity. At a later visit to the office, each subject was given a discrepant communication regarding the subject's level of masculinity-femininity. The researcher noted that

The masculinity-femininity scale was chosen as the dimension on which the discrepant communication was to be made, since the Ss were assumed to have special concern for their masculine or feminine image and, therefore, high involvement with communications on the topic (1962, p. 427).

This estimate of involvement appeared to be later confirmed by observation of the subjects' responses to the discrepant message, which included flushed faces, agitation, and other observations.

Under these conditions, a number of significant changes were found; however, no sex differences were revealed in the attitude changes of the males and females.

Prohibition

Knower used the subject of prohibition as the treatment in two studies of persuasion (1935, 1936). The studies
used different channels, as discussed later; however, for both oral and written procedures, women were reported as shifting opinion greater than men.

Voting age

Several studies using college students have used lowering of the voting age to eighteen as the topic for persuasion. Paulson (1954) reported female subjects shifted slightly more than males using this subject matter. Although specific results did not show male-female differences in persuasibility, when all groups who heard all the different presentations were combined, women had shifted more than the men. In a similar study, Sawyer (1955) found no sex difference, using the same topic. Sikkink (1956) found a significant difference, with women showing higher shifts, using a self-rating test of the convincingness of each speech concerning the same topic.

A possible explanation for differences in results between these studies is perhaps suggested by the findings of Janis and Field (1959). In comparisons between self-rated persuasibility and "behavioral" persuasibility test scores, Janis and Field reported there was no relationship indicated for women, and only a slight one for men. The comparison indicated that the two procedures do not measure the same thing.
Multiple topics

A number of studies have utilized more than one topic, including Wegrocki (1934), Diggory (1953), Janis and Field (1959), and others. Using Thurstone-type scales, Diggory measured subjects' attitudes toward such concepts as church, war, Negro, communism, treatment of criminals, law, birth control, God, censorship, and capital punishment. No differences in median attitude scores were reported between the sex groups except on scales measuring attitudes toward church, and God. Although no significant persuasibility results were indicated by the data, Diggory reported that factor analysis revealed significantly different attitude organizations: individual attitudes were differently related to the factor axes for men and women. Diggory suggested the findings were related to differences in the nature of the roles which are prescribed for men and women by society.

Janis and Field (1959) developed a multiple-topic opinion test for use in a study of adolescent persuasibility. The test used five widely-differing topics, including: Civil Defense, cancer, General Paul Von Hindenburg, classical-music radio broadcasts, and a fictitious comedian. The results suggested that the females were more persuasible than males across all topics.
Channel Effects

Studies of comparative persuasibility predominantly used oral channels for message transmission. Knower (1935) used oral conditions, and then written (1936), to determine the effects on persuasibility. In both cases, women changed attitudes more than men in response to arguments in favor of prohibition. Willis (1940), and Dietrich (1946) both used simulated radio broadcasts to test persuasibility. Dietrich found no difference in the persuasibility of males and females; Willis obtained contradictory results for two separate populations. High school students showed no difference in persuasibility, but college subjects indicated that females were more persuadable.

Abelson and Lesser (1959) in their study measuring the persuasibility of children, used a combination of non-verbal and verbal means to obtain persuasibility measures in children. The subjects were asked to evaluate preferences for different pictures, followed by discrepant communications from the test administrator, and from recorded messages of peers. No persuasibility differences were found between the sexes.

Source Effects

Credibility

In a comparative persuasibility study involving lowering the voting age to eighteen, Paulson (1954) found that
a significantly higher percentage of men shifted their attitudes when hearing a taped persuasive message from a speaker labeled "professor" than when the speaker was labeled "student." Percentages of shifts for women who heard the "professor" and the "student" were not significantly different. Although the specific results of this study did not show male-female differences in persuasibility, when all groups who heard all presentations were combined, women indicated a greater shift than men: 49.3% vs. 39.72%.

Haiman (1949) reported similar results, although in his study of the effects of ethos in public speaking, female students did not differ significantly from males in the average size or distance of opinion shifts. A significantly higher proportion of females, however, did shift their opinion. Anderson (1962) investigated the interaction of artistic and non-artistic ethos on persuasibility, using beginning college students. No difference in susceptibility to persuasion was found between the males and females.

Sex of the speaker

In an early study of persuasibility, Khower (1935) reported that in a public speaking situation, men appeared to respond more to women speakers and women more to male speakers. The net results showed one-third of the women
making a significant change in opinion, compared to one-fifth of the men; however, the greater apparent persuasibility of women did not appear when the speaker was a woman. Although Knowler found speakers were more effective with listeners of the opposite sex, Whittaker (1965a) reported that, in an autokinetic situation, males were more influential with both men and women. Haiman (1949) in his study also found no differences in effectiveness between undergraduate male and female speakers; however, a male graduate student speaker was more effective than a female graduate student.

Summary

A number of researchers in the past have concluded that females are more persuasible than males. It is perhaps far more accurate to note simply that in most instances, one of two results have been obtained in studies measuring persuasion and the sex variable. Either no significant difference has been found, or females have been found to be the more persuasible. This chapter has reviewed 28 studies which tested comparative sex persuasibility under widely-differing experimental conditions. Of these, 12 studies showed results in which females were significantly more persuasible than males, while 13 studies found no significant difference between the sexes. This would
appear to be far from conclusive evidence of the greater persuasibility of females.

This review also indicates that: (1) sex differences have generally not been explored as often as might be expected, considering the ease of including examination of this variable in communication studies, and (2) sparsely scattered studies of persuasibility have examined the sex variable in relation to variables which span the principal categories of the communication process. These include variables associated with: receiver characteristics, environmental effects, message effects, channel effects, and source effects. In all of these areas, the accumulated body of knowledge is less than definitive. Contradictory and inconclusive findings have provided the establishment of possible trends only, and greater replication and concentration of studies would appear to be needed in all areas. This conclusion of the current status of the literature is not unique for this area: Scheidel (1963), for example, noted that modern rhetoricians repeatedly emphasize audience analysis even though little of a factual nature is known about it. It is difficult to justify the admonition that the speaker should discover the important elements of an audience -- age, sex, involvement, and other personal variables -- when we are still unable to provide any factual information about the effects these attributes may produce.
This review also considered at some length the range of topics used in the related persuasibility experiments, since the relationship of topics and experimental results bear directly on the problem of this study. A summary chart of topics and results of past studies is listed in Appendix A.

There can be no decisive method for evaluating the specific effects which the choice of topics has had on the results of past studies. In general, however, differences might be inferred between the list of topics used in studies showing persuasibility differences, and those showing no persuasibility difference. The former list would include studies using topics which might clearly have been perceived differently by the two sexes. The topic of male sex practices (Kirkpatrick, Stryker and Buell, 1952) clearly could not be expected to have been perceived in a similar way by both sexes. The reported sex difference in persuasibility in this study might be explained as the differential effects of the choice of topic on the experimental subjects. Another possible example of such imbalanced topics would be the jury deliberations used by Strodbeck and Mann (1956). The researchers noted different knowledge levels of the legal considerations of negligence and damages might have influenced the results of male-female persuasibility.

Studies showing no persuasibility differences include topics which might be inferred as having greater
sources of helping, or altruistic behavior, which some researchers have associated as more of a female personality trait (Lindzey and Goldberg, 1953). The topics of studies falling into this category might include: abolishment of capital punishment (Cathcart, 1955), juvenile delinquency (Kaufman and Feshbach, 1963), attitudes towards war (Cherrington and Miller, 1934), and so on. Another category of topics might stem from the findings of Wegrocki (1934) that boys shifted their attitudes toward social issues more in the direction of hating, while girls shifted more readily in the direction of liking. Such differences in responses might account for the finding of no sex differences in the study by Dietrich (1946), which advocated pro-Russian sentiments.

Numerous interpretations could be advanced to logically account for sex persuasibility differences according to each experimenter's selection of topics. Such interpretations, however, would seem to be limited to pure speculation, as with the above interpretations.
CHAPTER II

THE PROBLEM

This chapter examines the specific problem of this study, developed from a review of past research, as reported in the first chapter. It is divided into three parts. The first part discusses the rationale for the study, and states the problem. The second part introduces definitions and explanations of specific terms used in the hypotheses. The third part states the specific hypotheses of the study.

Rationale and Problem

Rationale

It would generally seem reasonable to assume that females in our society are more persuasible than males. Tyler noted that evidence from personality questionnaires have generally indicated that males are considerably more aggressive than females (1963, p. 97).\(^2\) Janis and Field have noted that receivers having personality characteristics of hyperaggressive behavior, argumentativeness, and

\(^2\)One exception to this finding is a study by Lindsey and Goldberg (1953), using the Thematic Apperception Test. Males were found to be no more aggressive, nor did they have any greater need for achievement than females. The females of the study were, however, found to have greater tendencies toward helpful behavior, and giving freely of assistance.
suspiciousness tend to be relatively less persuasible than others (1959, p. 56). Since these characteristics, whether biological or cultural, are more closely associated with males, and appear to lead to greater resistance, it would follow that women are more persuasible than males.

It is not surprising, therefore, that this logic, tied to the occasional study showing greater female persuasibility has resulted in the view that: "The nearly unanimous consensus of researchers dating back as far as the 1930's has been that women are generally more persuasible than men" (Cronkhite, 1969, p. 136). Bettinghaus, however, has argued that "the results are not as clear as some researchers suggest" (1968, p. 32). His analysis suggests that topics of a majority of the studies showing significant differences between men and women, have been oriented more towards men than women.

Such possibilities prompted an exploratory pilot study by the author in late 1969, to determine if male subjects might indicate greater persuasibility when the subject matter was oriented more toward the females than the males. A review of the literature on the subject of persuasibility had, at the time, indicated that in no previous study were males found to be more persuasible than women. But it was also found that no experiment had utilized a subject matter which might have been directed more toward
women than men, although the reverse situation seemed occasionally apparent.

Accordingly, the pilot study utilized nylon stockings as the topic for the persuasive messages during an experimental session involving one beginning speech class. The results of this study indicated tentatively that the males were more persuaded under conditions in which the messages appeared to be weighted in favor of the females.

**Past studies of topic effects**

In published studies concerned with persuasibility, little attention has been given to the effect of the topic of the persuasive message on persuasibility between male and female subjects. Two exceptions to this are Scheidel (1963), and Janis and Field (1959). Schiedel noted that

> The topics used for the persuasive speeches in most of the experiments have dealt with political questions, and studies by Swanson and Nafliger, Engstrom, and MacLean, Jr., indicate that men are better informed on political questions than are women. If information correlates negatively with attitude change and positively with retention, as Ash, Block, and Hertzman found, then the sex differences in persuasibility and retention are explained (1963, p. 358).

Scheidel proceeded to test this interpretation in his study. He included material related to the topic of education, and since a number of the female college students involved in the experiment were education majors, Scheidel assumed they would be more involved with the subject than the males.
The females revealed greater attitude shift in response to this topic, and Scheidel concluded that "women are relatively more persuasible on subjects about which they have greater interest and are better informed," and also that "previous knowledge of a topic is not a valid explanation of sex differences in persuasibility" (1963, p. 358).

It should be noted, however, that the procedures used by Scheidel to test this interpretation, might not be as stringent as necessary to reach either of the conclusions. The female subjects, as beginning college students, might not have been as committed to the field of education as Scheidel was led to assume. Furthermore, no empirical assessment was made to actually test the relative involvement of male and female subjects toward the specific educational topic of the study, which was the expansion of federal control of education.

Janis and Field (1959) dealt with the effects of subject matter on persuasibility, including sex persuasibility, by using what they termed a "wider variety" of topics than previous studies. Other researchers have also utilized the Janis and Field test.\(^3\) Janis and Field chose their topics in a manner which they felt would tend to vary the effects of the subjects' prior knowledge. They reported that messages ranged from those on which the subjects could be

\(^3\)Whittaker (1965), and Glass, et. al., (1969).
expected to hold definite initial opinions, e.g., preferences for classical music, to others which might have no previous opinions, e.g., a fictitious television comedian. Janis and Field noted that

One assumption tested in this study is that, if a general factor of susceptibility to persuasion is present, consistent individual differences should be found on all topics, but should show up most strongly on the unstructured topics, i.e., those for which initial opinions are not based on familiarity with the nature of the issue or on prior information about the pros and cons (1959, p. 34).

The results appeared to confirm this prediction, with females demonstrating a fairly consistent greater level of persuasibility than males. Janis and Field concluded that subject matter alone failed to explain the positive relationships for females, among opinion changes on diverse and opposing communications (1959, p. 50).

Such a conclusion, however, does not resolve the question of the influence of the specific topic on sex persuasibility, since although the topics might (or might not) have been "unrelated," no measure was attempted to actually test the similarity or dissimilarity of the male and female levels of involvement with the topics used. For example, in the topic "civil defense," males might possibly have had greater involvement, or stronger frames of reference than the females. The females could have been less involved, or had less direct exposure to information about the topic, as a result of cultural differences in sex roles concerning
the relevance of being well-informed on such matters. Conceivably, these female subjects could have shown significantly higher persuasibility because they were moving from knowing little, to knowing the content of the speech.

In the messages concerning the fictitious television comedian, both sexes might have had low initial levels of information, but the responses to this situation might have been entirely different for each sex, as a result of cultural differences, or ego-envolvement levels.

Aside from such speculation, the fact remains that we do not know in the Janis and Field study, nor any other study in the review, whether initial differences in topic involvement did or did not exist. There can be no assurance, therefore, that the messages were not in fact "content-bound" as a result of the specific topics used.

It is consistent with this view to note that while Janis and Field found women generally more persuasible than men, studies by Glass, et. al. (1969), and Whittaker (1965), both using the Janis and Field test, reported finding no significant difference in male and female persuasibility.

On the basis of such discrepant findings, the interaction of message topics and sex persuasibility, as an issue in persuasive research, does not appear to be soluble until assessments are made of initial topic involvement in advance of experimental treatments. The most effective tool for such a measurement might logically be the semantic
differential, since measurements of meaning would also reflect intensities of differentiated involvement with potential message topics. Specific levels of meaning within both sexes of recipients could then be matched far more accurately than has been done in previous studies.

Statement of the Problem

The central problem of this study, then, was to determine the interaction of message topics with general persuasibility characteristics of males and females. Generally stated, the research question would be: What comparative sex persuasibility characteristics will be obtained when topic-involvements are matched or contrasted between the sexes?

Introduction to the Specific Hypotheses

The review of past sex persuasibility studies and subsequent formulation of the problem led to the positing of a general hypothesis for this study that

No differences in persuasibility will be found when "involvement" with the specific topic of the communication is equal for both sexes, but that persuasibility differences will be revealed under conditions of unequal topic-involvement between the sexes.

This general hypothesis requires clarification of a number of terms and intended meanings.

Terms and definitions

Kemp (1967) noted that persuasion, persuasibility,
attitude change, opinion change, and suggestibility have all, at varying times, been employed in studies investigating responses to communication. These terms have frequently been used interchangeably, and because of the lack of contradictory evidence, they must be considered as having highly similar intended meanings. For the purposes of this study, persuasion was defined as

The changing or modifying of a subject's attitude, from one position related to the communicator's message to a different position in response to the communicator's message.

Taken in this broad sense, persuasion may work both for, or against the persuader. A person may be persuaded to do exactly the opposite of the persuader's intentions. This directional change was taken into account in the analysis of the data of the study.

The term persuasibility was used in this study simply as individual differences in susceptibility to persuasion. This definition is stated broadly, since past studies have indicated that individual and group differences in persuasibility cannot be divorced from other relevant factors, such as the content of the message, source attributes, message topics, and so on.

This study also focused on the relationship between persuasibility and involvement with the topics of persuasive messages. This term was operationally defined as
The measured intensity of a subject's identification with a given topic, as determined by a semantic differential using the evaluative dimension.

The specific method of empirically assessing this measure of individual involvement will be discussed at greater length in the following chapter. It should be noted, however, that topic involvement, as the intervening variable of this study, no doubt reflects the influences of a variety of different variables. For example, a subject's assessed involvement to a specific topic might reflect his degree of "ego-involvement" with the topic; or it might be a result of any number of combinations of factors, such as relevance; or direct and indirect personal background and experiences; or levels of anxiety, and so on. No attempt was made to sort out the influential factors which contributed to a subject's measure of involvement; the measure was simply taken to reflect the subject's sum total of the various possible contributing sources. Osgood, et. al. (1957), as will be discussed in the next chapter, referred to this sum total as the meaning which a subject assigns to a specific topic.

Measures of attitude change

Hovland and Janis have noted that attitudes may be measured by methods which enable an assessment of a subject's private thoughts, feelings, and evaluations (1959, p. 2). This study utilized seven-step interval rating scales as a measure of these personal evaluations. Because
of the lack of any widespread agreement, a certain amount of doubt must remain whether this study's measurement technique assessed changes in attitudes, opinions, or beliefs. According to Hovland and Janis, attitude changes are assumed when there are

... clear-cut indications that the recipient has internalized a valuational message, as evidenced by the fact that the person's actions, as well as his verbalized judgements, are discernibly changed (1959, p. 2).

Opinion changes, as defined by Hovland and Janis are

... used when there is evidence of a genuine change in a verbalized belief or value judgement. This usually constitutes one component of attitude change (1959, p. 3).

Cronkhite has described beliefs as

... the acceptance of a statement or proposition. It does not necessarily imply an attitude of being "for" or "against". Beliefs can be held without the emotional tinge of an attitude (1969, p. 9).

If these definitions were universally accepted and applied by researchers, the data obtained in this study would probably be descriptive of the experimental subjects' beliefs -- because of the nature of the topics used in the study (consumer products).

Cronkhite also noted, however, that "most beliefs and opinions are closely linked with attitudes. They are often rationalizations for attitudes." He also noted that there are no measures of attitudes except "overt behavior," and that an attitude test response is certainly behavior, and
overt as well, "although it may not require as much energy." (1969, p. 9). The question remains, however, whether a correlation exists between paper-and-pencil behavior, and other direct forms of behavior.

Because of the absence of more stringent guidelines, the response changes in this study, as determined by the interval rating scales, will be referred to as the subject's attitude changes.

Hypotheses

This study, then, tested the following hypotheses:

Hypothesis One
Attitude changes in response to persuasive messages will not be significantly different between male and female populations, as measured by interval rating scales, when involvement with the topic of the messages is measurably equal for both males and females.

Hypothesis Two
Attitude changes in response to persuasive messages will be significantly greater for female than for male populations, as measured by interval rating scales, when involvement with the topic of the messages is measurably greater for the males, than for the females.

Hypothesis Three
Attitude changes in response to persuasive messages
will be significantly greater for male than for female populations, as measured by interval rating scales, when involvement with the topic of the messages is measurably greater for the females, than for the males.

Hypothesis Four

Shifts of attitude in both male and female populations will be significantly greater for topics with which they are not involved, than for topics with which they are involved.

Hypothesis Five

Male and female populations will generally shift their attitudes in the directions advocated by the persuasive messages, as measured by interval rating scale scores.
CHAPTER III

THE EXPERIMENTAL DESIGN

This chapter describes the procedures undertaken in collecting data for testing the five hypotheses. It has been divided into four sections. The first section provides a general introduction to the procedures used, the next three sections provide a more detailed explanation of the major elements of the experimental procedures. These include: part two, the pre-assessment procedures; part three, the experimental treatment; and part four, the measurement procedures.

Introduction

In order to test the hypotheses, a three-stage procedure was implemented which included:

(1) A measure of the intervening variable, topic involvement, was first conducted as a preassessment test, using a semantic differential of twelve consumer products.

(2) From the results of this test, three topics were selected for testing the specific hypotheses. Persuasive messages were constructed on these topics to serve as the independent variable in a persuasibility experiment. The measure of the dependent variable, or response to persuasion,
was developed as a booklet of questions and interval rating scales.

(3) A persuasibility experiment was conducted in which subjects rated their impressions of each product-topic on interval rating scales before and after hearing each of two one-sided messages relating to each product.

Experimental Subjects

Subjects included 48 undergraduate students -- 22 males, and 26 females -- drawn from three classes during the spring quarter, 1970, at the University of Montana. The classes included: Communication 234, Introduction to Communication; Sociology 205, Elementary Social Statistics; and Psychology 311, Learning. A majority of the subjects came from the communication class. Subjects ranged from sophomore to senior class level, although most of the students were sophomores.

Preassessment Procedures

The hypotheses of this experiment required that a preassessment be made of what was termed the "involvement" of the male and female groups towards the proposed topics of the persuasive communication. This differed from pretests utilized in many studies of persuasion, in that it measured the types and the intensities of evaluative meanings which the groups generally demonstrated for
a given topic-concept. This premeasurement provided data by which comparisons of meanings could be made between the sexes, and appropriate topics could then be selected for testing the hypotheses. The three topics required for the experimental treatment were: one topic having a measurably greater male involvement (hereafter called the male-involvement topic); one topic having a measurably greater female involvement (hereafter called the female-involvement topic); and a third topic of apparently equal weighting for both sexes (hereafter called the balanced topic).

Semantic Differentiation

The instrument used for this meaning measurement was the semantic differential, as developed by Osgood, Suci, and Tannenbaum (1957). This instrument provides a scaled measure of the meanings individuals give to different concepts. Osgood, et al., defined meaning by first postulating the existence of a semantic space for each person—a Euclidian region of unknown dimensionality. Meaning for any given individual was described as a series of straight line functions that pass through this space. Each line is represented as a semantic scale of bipolar opposite adjectives. The meaning for any given concept is determined according to its location along the scale. The total meaning for a concept is determined by successive allocations of
the concept to a series of these scaled semantic alternatives (Osgood, 1957, p. 26).

The operational definition of meaning for Osgood is the score obtained from these allocations, and has two essential properties: distance and direction. The direction in the semantic space is determined by which of the two mediating adjectives is selected -- with the assumption that the two adjectives are reciprocally antagonistic. The mid-point along this scale is a region of no meaning, at which point the opposing terms have cancelled the effects of each other. The distance from the mid-point is equivalent to the intensity of the evoked selection.

Application of the Semantic Differential

Consumer products were selected for use as the topic-concepts in the semantic differential of this study, since on the basis of past usage alone, certain products would be more identifiable with one or the other sex. The primary considerations in selecting the topic-concepts were that they: (1) have relevance to a college audience, and (2) have a potential ambiguity of appearance, for use in experimental sessions which required allegedly "highly similar" competing brands of consumer products.

It was hypothesized on an a priori basis, that each sex would be able to identify with, and rate the semantic scales with greater intensity for some products than for others. These ratings were to serve as the measure of
subject's involvement with the product. For the purposes of this experiment, this involvement was equated to Osgood's definition of distance, i.e., the distance from the midpoint of the scale, represented the subject's intensity, or "involvement" with the topic.

Dimensions of meaning

Only one of the three principal meaning factors of the semantic differential was used in this experiment: the factor termed "evaluative." Osgood et al. noted that it is reasonable to identify attitude, as conceived in both lay and scientific language, with the evaluative dimension of the total semantic space. This dimension was originally isolated through a factorization of meaningful judgments of a large number of subjects (Osgood, et al., 1957, p. 190). Osgood noted that the evaluative factor has usually been the dominant factor, "accounting for the largest proportion of the total variance." The evaluative dimension was therefore used exclusively in this experiment because it appeared to be most closely tapping the dimensions that would be brought into play by the male and female groups when participating in the experimental treatment.4

Preassessment sessions

All experimental subjects completed the semantic

4Appendix B provides a list of adjective pairs used, and factor loadings; Appendix C is a sample of the instrument.
differential instrument during regular class sessions. Subjects were then asked to participate in a second part of the "consumer study" by signing-up for an experimental session outside of the regular class time. Only the preassessment scores of students who signed-up for the experiment were used in compiling meaning preassessment scores.

Results

Table 2 lists the comparative mean scores, on the evaluative factor, for males and females for the twelve products listed in the semantic differential. These mean scores were also charted, as represented in Fig. 1, to examine visually each topic's potential applicability to the experiment.

TABLE 2
MEAN SCORES FOR THE EVALUATIVE FACTOR OF THE SEMANTIC DIFFERENTIAL PREASSESSMENT

<table>
<thead>
<tr>
<th>Topic-Concept</th>
<th>Male Mean Scores</th>
<th>Female Mean Scores</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automobile Tires</td>
<td>12.1364</td>
<td>11.2857</td>
<td>.8507</td>
</tr>
<tr>
<td>Life Insurance</td>
<td>14.8636</td>
<td>10.5000</td>
<td>4.3636</td>
</tr>
<tr>
<td>Diamonds</td>
<td>17.2727</td>
<td>15.3571</td>
<td>1.9156</td>
</tr>
<tr>
<td>Dry Flies</td>
<td>16.7727</td>
<td>19.3571</td>
<td>-2.5844</td>
</tr>
<tr>
<td>Panty Hose</td>
<td>16.0909</td>
<td>11.2857</td>
<td>4.8052</td>
</tr>
<tr>
<td>Pipe Tobacco</td>
<td>18.9545</td>
<td>16.6786</td>
<td>2.2759</td>
</tr>
<tr>
<td>Snapshots</td>
<td>13.9091</td>
<td>10.2857</td>
<td>3.6234</td>
</tr>
<tr>
<td>Birth Control Pills</td>
<td>10.0000</td>
<td>10.6071</td>
<td>-.6071</td>
</tr>
<tr>
<td>Sun Tan Lotion</td>
<td>17.1364</td>
<td>15.6071</td>
<td>1.5293</td>
</tr>
<tr>
<td>Deodorant</td>
<td>13.5909</td>
<td>9.2143</td>
<td>4.3766</td>
</tr>
<tr>
<td>Lipstick</td>
<td>18.2727</td>
<td>15.7857</td>
<td>2.4870</td>
</tr>
<tr>
<td>Shaving Cream</td>
<td>13.2273</td>
<td>15.0714</td>
<td>-1.8441</td>
</tr>
</tbody>
</table>
Fig. 1. — Comparative profiles of semantic differential preassessment mean scores for males and females.

<table>
<thead>
<tr>
<th>(most negative)</th>
<th>Interval Scores</th>
<th>(most positive)</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>30</td>
<td>25</td>
</tr>
</tbody>
</table>

Automobile Tires ................................................................. +
Life Insurance ........................................................................... +
Diamonds ...................................................................................... +
Dry Flies ...................................................................................... +
Panty Hose ................................................................................... +
Pipe Tobacco ............................................................................... +
Snapshots ...................................................................................... +
Birth Control Pills ...................................................................... +
Sun Tan Lotion .............................................................................. +
Deodorant ....................................................................................... +
Lipstick ......................................................................................... +
Shaving Cream ................................................................................. +

† Represents the mid-point of semantic scale (neutral)
---------- = Male mean scores; ——— = Female mean scores

See preceding table (2) for exact mean scores.
Selection of experimental topics

Selection of topics for use in the experiment was based on the difference values between the male and female mean scores on the semantic differential, as represented in Table 2. Topics having the largest difference in mean scores between males and females were chosen as the male- and the female-involvement topics. The balanced topic was chosen from the topic showing the least difference between the male and female mean scores.

Male-involvement topic

The topic showing the greatest male-involvement difference between the two populations was "dry flies." The scores for this concept were submitted to an F-maximum test for homogeneity of variances between the male and female populations (Bruning and Kintz, 1968, p. 110). The results indicated there was no statistically significant difference between the variances of the male and female populations. The scores for male and female subjects were therefore submitted to a t-test for two independent means (Bruning and Kintz, 1968, p. 9). The results showed a significant difference between the two populations to the .05 level of significance. The topic "dry flies" was therefore accepted as the male-involvement topic for use in the experiment.
Female-involvement topic

The topic showing the greatest female-involvement difference between the male and female mean scores was the product "panty hose." Scores for this topic were subjected to the same statistical procedures as the male-involvement topic. Equality of variance was ascertained, and the mean difference between the two populations was found to be significant to the .001 level. The product "panty hose" was therefore accepted as the female-involvement topic.

Balanced topic

The topic showing the least difference between male and female mean scores was the topic "birth control pills." Both male and female populations reported similar mean scores of positive involvement with the topic. The same statistical procedures revealed that the variance was equal between the two populations, and that furthermore, no statistically significant difference existed between the male and female mean ratings.

Experimental Treatment

Following selection of the three persuasive topics, the experimental sessions were developed. The experimental procedures, briefly, included the following stages: (1) subjects rated their initial impressions of a consumer product on interval rating scales, (2) subjects heard a one-sided
message related to the product, (3) identical interval scales were again rated, (4) subjects heard a second one-sided message, advocating a reverse position, and (5) subjects rated a third set of identical rating scales.

Message Preparation

Persuasive messages for each of the products were developed from a number of informational sources relating to each of the products. The panty hose messages were developed out of interviews with a ladies apparel manager of a local department store. The store reported a substantial volume of sales of panty hose to college coeds, and the manager was able to supply information about buying habits and the kinds of information that coeds considered most relevant to their purchases.

The dry fly messages were developed out of interviews with several retail sporting goods managers, and also from printed sources of fly fishing catalogs and published articles on dry fly fishing.

The birth control pill messages were developed around a developing national controversy concerning the safeness of the Pill for consumers. Magazine articles were consulted for a period of six months prior to the time of the experiment, and two arguments were developed — one supporting, and one opposing use of the Pill.
Product Preparation

Product samples of the panty hose and dry flies were assembled and prepared for direct comparison by the experimental subjects. Since the persuasive messages related directly to the physical appearances of these products, initial judgments were based on personal examination of the product samples. The topic "birth control pills," however, was discussed only, since the messages were concerned with issues relating to the effects, rather than visual qualities of the product. Six sets of panty hose material samples, which had been used for display purposes in retail sales, were labeled separately with adhesive labels featuring a large single letter, either L or S. The stockings were identical except for color variations. Sets of identical dry flies were placed individually in clear plastic boxes with identifying letters, either L or A, attached to each box.

Source Attributes

To control as much as possible for variations in the variables of source attributes, all messages were tape recorded for use in the experimental sessions. An experienced male speaker's voice was used exclusively in constructing the master tape. The use of a single voice, male only, appeared to have fewer inherent difficulties than any attempt at equal balancing between both male and female voices. Although both male and female speakers could have
been represented in this experiment, the differential effects of nonverbal-vocal qualities on persuasibility would have been unknown. In addition, results of persuasibility studies tend to be either inconsistent or non-significant concerning irrelevant membership-group similarity.\(^5\)

**Ordering Effects**

Because ordering effects of the separate messages might figure importantly in the experimental results, twelve separate orders of presentation were prepared on tapes from the master recording of both persuasive messages and procedural instructions. These twelve orders were developed by rotating the order of both the three products and the two messages for each product. Each message in the experiment was designed to function as an independent unit, for rotation purposes. The five parts of the total recorded material included: (1) general introduction, (2) product introduction, (3) pre-message information, (4) post-message information, and (5) the actual messages.\(^6\) The general and product introductions were worded so that any combination of messages could follow, and similarly, the pre- and post-message information sequences were standardized so that either of the sets of information could be used with the same introduction.

\(^5\)Refer to p. 21 for a discussion of these results.

\(^6\)All of the actual messages appear in Appendix D.
To allow respondents time to read instructions, or fill in rating scales, a recorded bell signal cued the attendant operating the tape recorder to stop the tape, and wait until all subjects had finished the specific task.

Three different products were used in the experiment, and each product had two one-sided messages, supporting first one, and then the other of the two brands, or positions under consideration for each product. The ordering of these messages with all twelve treatments began with the general introduction followed by different sequences of the messages for the three products. Table 3 presents two examples representative of the principal combinations used in the study.

### TABLE 3
TAPED TREATMENTS AND MESSAGE TIMES

<table>
<thead>
<tr>
<th>Tape One Description</th>
<th>Minutes</th>
<th>Tape Two Description</th>
<th>Minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>introduction</td>
<td>1:30</td>
<td>introduction</td>
<td>1:30</td>
</tr>
<tr>
<td>dry flies introduction</td>
<td></td>
<td>dry flies introduction</td>
<td></td>
</tr>
<tr>
<td>Brand L</td>
<td></td>
<td>Brand S</td>
<td></td>
</tr>
<tr>
<td>Brand S</td>
<td>4:45</td>
<td>Brand L</td>
<td>4:45</td>
</tr>
<tr>
<td>panty hose introduction</td>
<td></td>
<td>panty hose introduction</td>
<td></td>
</tr>
<tr>
<td>Brand L</td>
<td></td>
<td>Brand A</td>
<td></td>
</tr>
<tr>
<td>Brand A</td>
<td>3:45</td>
<td>Brand L</td>
<td>3:45</td>
</tr>
<tr>
<td>birth control pills intro.</td>
<td></td>
<td>birth control pills intro.</td>
<td></td>
</tr>
<tr>
<td>opposing</td>
<td></td>
<td>supporting</td>
<td></td>
</tr>
<tr>
<td>supporting</td>
<td>6:45</td>
<td>opposing</td>
<td>6:45</td>
</tr>
<tr>
<td>Total. . . .</td>
<td>16:45</td>
<td>Total. . .</td>
<td>16:45</td>
</tr>
</tbody>
</table>
Taped presentations

The twelve taped orders of presentation for the experimental treatment are presented in Table 4. Message combinations varied both for the three products, and for the messages used in each product, thereby providing twelve principal combinations.

**TABLE 4**

**A LIST OF TAPED EXPERIMENTAL TREATMENTS**

<table>
<thead>
<tr>
<th>Tape</th>
<th>Combination</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>D D P P C C</td>
</tr>
<tr>
<td>Two</td>
<td>S L A L P C</td>
</tr>
<tr>
<td>Three</td>
<td>F P C C D D</td>
</tr>
<tr>
<td>Four</td>
<td>A L P C S L</td>
</tr>
<tr>
<td>Five</td>
<td>C C D D P P</td>
</tr>
<tr>
<td>Six</td>
<td>P C S L A L</td>
</tr>
<tr>
<td>Seven</td>
<td>D D C C P P</td>
</tr>
<tr>
<td>Eight</td>
<td>S L P C A L</td>
</tr>
<tr>
<td>Nine</td>
<td>P P D D C C</td>
</tr>
<tr>
<td>Ten</td>
<td>A L S L P C</td>
</tr>
<tr>
<td>Eleven</td>
<td>C C P P D D</td>
</tr>
<tr>
<td>Twelve</td>
<td>P C A L S L</td>
</tr>
</tbody>
</table>

Legend: $D_L$ = Dry Flies, Brand L; $D_S$ = Dry Flies, Brand S; $P_L$ = Panty Hose, Brand L; $P_A$ = Panty Hose, Brand A; $C_F$ = Birth Control Pills, Supporting Argument; and $C_O$ = Birth Control Pills, Opposing Argument.
Experimental Sessions

By prior arrangement, subjects reported to separate classrooms for the experimental sessions. There were usually four persons present for each of the taped presentations. The subjects were informed that they were participating in a consumer research study, and all test forms were labeled under the title of a fictitious consumer research institute to increase "face credibility" of the study. As part of the taped presentation, introductory material explained that the purpose of the study, in part, was to test sets of new, similar competing products.  

Measurement Procedures

Response Booklets

Subjects rated their initial evaluations and responses to the oral material in individual answer booklets. For each of the three products, there were three separate sheets of identical seven-step interval rating scales. The subjects rated one sheet of interval scales initially, and then one sheet following each of the two one-sided messages per product, as indicated in the summary section of Table 5. All of the ratings represented each individual's response to specific questions concerning the product, with one interval

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7 See introductory material in Appendix D.
8 See sample response booklet in Appendix E.
scale being marked for each specific question, e.g. "which stocking do you feel has the better weave?". A mark at one end of the scale meant the respondent totally preferred the brand listed at that end of the scale. The mid-point of the scale meant the subject was neutral or undecided.

**TABLE 5**

**EXPERIMENTAL DESIGN**

<table>
<thead>
<tr>
<th>Treatment Sequence</th>
<th>(T_1)</th>
<th>(X_1)</th>
<th>(T_2)</th>
<th>(X_2)</th>
<th>(T_3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ss' Activity</td>
<td>Rating of initial observation = 0₁</td>
<td>One-sided message</td>
<td>Second rating = 0₂</td>
<td>One-sided Message</td>
<td>Third rating = 0₃</td>
</tr>
</tbody>
</table>

**Plan of the Total Data Collection Design for All Experimental Sessions**

<table>
<thead>
<tr>
<th>(T_1) initial rating</th>
<th>(X_1) = first message</th>
<th>(T_2) second rating</th>
<th>(X_2) = second message</th>
<th>(T_3) third rating</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step One -- Introduce First Product</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>0₁</td>
<td>(X₁)</td>
<td>0₂</td>
<td>(X₂)</td>
</tr>
<tr>
<td>Females</td>
<td>0₁</td>
<td>(X₁)</td>
<td>0₂</td>
<td>(X₂)</td>
</tr>
<tr>
<td><strong>Step Two -- Introduce Second Product</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>0₁</td>
<td>(X₁)</td>
<td>0₂</td>
<td>(X₂)</td>
</tr>
<tr>
<td>Females</td>
<td>0₁</td>
<td>(X₁)</td>
<td>0₂</td>
<td>(X₂)</td>
</tr>
<tr>
<td><strong>Step Three -- Introduce Third Product</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>0₁</td>
<td>(X₁)</td>
<td>0₂</td>
<td>(X₂)</td>
</tr>
<tr>
<td>Females</td>
<td>0₁</td>
<td>(X₁)</td>
<td>0₂</td>
<td>(X₂)</td>
</tr>
</tbody>
</table>
Experimental Design

The data collection design in Table 5 depicts the order of events in the experiment. At time-one \((T_1)\), subjects examined two very similar brands of a consumer product, and rated their preferences \((O_1)\) on interval rating scales. Subjects next heard a persuasive message \((X_1)\) supporting one of the two brands; at time-two, subjects again rated their opinions about the brands on a second page of rating scales. Subjects then heard a persuasive message for the second of the two brands, and at time-three, rated a third sheet of interval rating scales. This complete procedure repeated three times: first for Step One, then for Step Two and Step Three. At each step, a new product was introduced and evaluated. For dry flies and panty hose, subjects examined two brands to arrive at their initial preferences. For birth control pills, subjects initially rated their feelings concerning this product, and then heard the two one-sided-messages, supporting and opposing, and rated scales, as in the other steps.

Scoring Procedures for the First Four Hypotheses

The following explanation relates the method used for scoring the booklets after the experimental sessions were completed. The procedure was essentially the same as the method used by Janis and Field (1959), and Glass, et al. (1969). The persuasibility scores obtained from the
booklets were based only on the direction of change. For example, a male subject, responding to one persuasive message, changed four of his six rating scale responses in the direction advocated by the message. His score was therefore 4, which is the measure of his responsiveness to that single message. This method of scoring does not reflect the magnitude of change: a change of one unit or many units on a single interval rating scale is scored as 1. This scoring method was adopted for the same reasons as those advanced by Janis and Field, particularly the problem that, "... there is no simple way to equate the magnitude of change on one question with that on another ..." (1959, p. 39). This procedure also tended to compensate for the comparisons of ratings made in response to the three different topics, since the intensities might be expected to vary appreciably among topics.

One persuasibility score was obtained for each individual per product. This score represented the total number of items on which the subject changed his position in response to the two messages heard for each product. The male subject described above, scored 4 in response to the first persuasive message, and 3 in response to the second message presented for the one product being considered. His persuasibility score for that product was therefore 7, out of a possible persuasibility score of 12. Each subject
received three such scores, each ranging from zero to twelve, for the three topics used in the experiment.

**Statistical tests for persuasibility scores**

Janis and Field (1959), and Glass et al. (1969), both utilized the analysis of variance in testing the data obtained from this scoring procedure. For the purposes of the present experiment, however, the standard t-test for independent measures, and for related measures was used, since no more than two group means was required to test any of the first four hypotheses.

**Statistical reasoning**

Two different statistical reasoning procedures were utilized for the first four hypotheses in this experiment, and will therefore be described separately.

**Hypothesis One.** — On the basis of the semantic differential preassessment results, both male and female groups were expected to show no significant differences in attitude shifts made in response to persuasive messages concerning the topic, "birth control pills." Since $H_1$ predicted that both male and female populations would have the same population mean following each persuasive message, the working hypothesis is written:

$$H_1: \mu_1 = \mu_2$$
The level of significance was established (two-tailed) at:

\[ p < .05 \]

Under the terms of the hypothesis, any difference between the means of the samples of the two populations would be due to sampling error only. If this probability was as low as, or lower than, the established .05 level of probability, the hypothesis would be rejected.

**Hypotheses Two, Three and Four.** — All three hypotheses predicted that differences would exist between the attitude shift means of the two populations under consideration in each separate hypothesis. Hypotheses Two and Three predicted differences between male and female populations; hypothesis Four predicted within-group differences for males and for females. Under the terms of the null hypothesis, both populations in each hypothesis would have the same mean resulting from attitude shifts. The null is written:

\[ H_0: \mu_1 = \mu_2 \]

The level of significance (one-tailed) was established at:

\[ p < .05 \]

Under the terms of the null hypothesis, any differences between the means of the samples of the two populations of each hypothesis would be due to sampling error only. If this probability was as low as, or lower than, the established .05 level of probability, the null hypothesis would be rejected.
Scoring and Testing the Fifth Hypothesis

The fifth and final hypothesis of the experiment differed from the previous hypotheses in that it was concerned with message effectiveness. This hypothesis predicted that shifts of attitude would be generally in the direction advocated by each persuasive message. Analysis of the data was therefore conducted for each separate persuasive message used in the experiment. For this hypothesis, scores were needed at all three measurement times in the experiment, since the effectiveness of any given message would require pre- and post-test measures for each message, rather than a single-measure persuasibility score. Accordingly, each interval scale for all experimental subjects was re-scored according to the specific interval marked on each of the scales. All scores were listed according to the number of intervals from the left-hand margin. That is, for each scale, scores ranged from one to seven, left to right, excepting birth control pill scales, which alternated their direction. The six scales, per response sheet, were then summed, and this figure represented the individual's score for that particular point in the experimental session. There were, then, three scores for each individual, for each of the three products, as required for testing the hypothesis. This scoring technique was only

9See example of birth control pill scales, Appendix E.
used for assembling the data to test the fifth hypothesis.

**Statistical procedures for Hypothesis Five**

Since this scoring procedure consisted of the magnitude of the shift, as well as the direction, and since the magnitude of all scales could not be equated, interval measurement was not assumed, and a nonparametric test of difference was used to test each message's effectiveness. The hypothesis predicted that a difference would exist between the ratings made before and after each persuasive message. The Wilcoxon sign-test for differences between the before and after measures was used to check for significance in the related measures. A message was accepted as having effected the desired change in responses if a .05 level of significance (one-tailed) was found in comparing the before and after measures.
CHAPTER IV

RESULTS

This chapter contains the results and statistical interpretation of this persuasibility experiment. The effect of message topics on sex persuasibility was empirically tested by means of an experimental treatment of male and female college students, using three preassessed topics: a balanced topic, a male-involvement topic, and a female-involvement topic. The general hypothesis of this investigation stated that no difference in persuasibility would be found when involvement with the specific topic was equal for both sexes, but that persuasibility differences would be revealed under conditions of unequal topic-involvement between the sexes. Furthermore, each sex was expected to shift more for topics which they were not involved with, than for topics with which they were involved.

Attitude shifts for each sex, in relation to the three topics, are depicted in Fig. 2. The mean shift scores of the graph appear to confirm the general hypothesis, to the extent that: (1) for females, there were substantially greater shifts for the male-involvement topic than for the female-involvement topic, and (2) the mean shift for males is slightly greater for the female-involvement topic than for the male-involvement topic.
Fig. 2. -- Mean changes in product ratings as a function of message topic, for male and female subjects.

Male and female mean shifts were analyzed for statistical significance by the use of t-ratios. A summary of the mean shifts and t-test results is presented in Table 6 for the first three hypotheses of the study. These are the between-group hypotheses of the study. The t-tests are then, for independent means.

Hypothesis One predicted that

Attitude changes in response to persuasive messages will not be significantly different between male and female populations, as measured by interval rating scales, when involvement with the topic of the messages is measurably equal for both males and females.

The hypothesis was confirmed. No statistically significant difference between the mean shift of the males and females was found ($t = .4641$).
TABLE 6
STATISTICAL TESTS FOR HYPOTHESES ONE, TWO, AND
THREE: MEAN DIFFERENCES BETWEEN SEXES

<table>
<thead>
<tr>
<th></th>
<th>Males (n = 22)</th>
<th>Females (n = 26)</th>
<th>t-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>Mean</td>
<td>Score</td>
<td>Mean</td>
</tr>
<tr>
<td>Balanced Topic</td>
<td>84</td>
<td>3.8182</td>
<td>90</td>
</tr>
<tr>
<td>Male Topic</td>
<td>67</td>
<td>3.0455</td>
<td>125</td>
</tr>
<tr>
<td>Female Topic</td>
<td>73</td>
<td>3.3182</td>
<td>93</td>
</tr>
</tbody>
</table>

a Not Significant.  bp < .0005.

The second hypothesis stated that
Attitude changes in response to persuasive messages will be significantly greater for female than for male populations, as measured by interval rating scales, when involvement with the topic of the messages is measurably greater for the males, than for the females.

This hypothesis was also confirmed, with a highly significant difference obtained between the male and female shift scores (t = 65.2) for the male-involvement topic, with females shifting more.

Hypothesis Three predicted that
Attitude changes in response to persuasive messages will be significantly greater for male than for female populations, as measured by interval rating scales, when involvement with the topic of the messages is measurably greater for the females, than for the males.

The hypothesis was not confirmed. There was no statistically significant difference between the mean shifts of the male
and female populations \( t = .2678 \). Furthermore, the mean shift was greater for females than for males, which was the opposite of the predicted direction.

**Results of the Within-Group Hypothesis**

The fourth hypothesis examined within-group shift differences, and was tested separately for males and for females, using \( t \)-tests for related measures. A summary of the scores and results of these tests is presented in Table 7. The fourth hypothesis had predicted that

Shifts of attitude in both male and female populations will be significantly greater for topics with which they are not involved, than for topics with which they are involved.

The hypothesis was confirmed for the female population only. The mean differences between the female shifts in response to the male- and female-involvement topics was significantly different \( t = 1.8620 \). The male shifts differed in the predicted direction, as indicated in Fig. 2., although the difference was not significant \( t = .3649 \).

**TABLE 7**

**Statistical Tests for Hypothesis Four: \( t \)-tests of Mean Differences Within Male and Female Groups**

<table>
<thead>
<tr>
<th></th>
<th>Male-Invol. Topic</th>
<th>Female-Invol. Topic</th>
<th>( t )-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>Mean</td>
<td>Score</td>
<td>Mean</td>
</tr>
<tr>
<td>Males</td>
<td>67</td>
<td>3.0455</td>
<td>73</td>
</tr>
<tr>
<td>Females</td>
<td>125</td>
<td>4.8077</td>
<td>93</td>
</tr>
</tbody>
</table>

\(^a\)Not Significant. \(^b\)p<.05.
Results of Hypothesis of Message Effectiveness

Hypothesis Five had stated that

Male and female populations will generally shift their attitudes in the directions advocated by the persuasive messages, as measured by interval rating scores.

Since a number of no-shifts, and reverse shifts were observed in the data, each of the six persuasive messages was submitted to a significance test. Using the Wilcoxon sign test for differences between related measures (Bruning and Kintz, 1968, p. 205), the six messages were tested individually for males and for females. Table 8 presents a summary of the results of these tests. All but two of the messages were found to have elicited significant attitude shifts in the direction advocated. The two messages which failed to show significance included one each of the male- and female-involvement topic messages, and were non-significant for both sexes. The shifts, however, were in the direction advocated.

TABLE 8

STATISTICAL TESTS FOR HYPOTHESIS FIVE: WILCOXON SIGN TESTS FOR DIFFERENCES BETWEEN RELATED MEASURES

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pro</td>
<td>L</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>Con</td>
<td>S</td>
<td>L</td>
</tr>
<tr>
<td>Critical Value</td>
<td>63</td>
<td>148</td>
<td>40</td>
</tr>
<tr>
<td>Males Signif. (p&lt;)</td>
<td>.025</td>
<td>N-S</td>
<td>.005</td>
</tr>
<tr>
<td></td>
<td>61</td>
<td>45.5</td>
<td>N-S</td>
</tr>
<tr>
<td></td>
<td>.025</td>
<td>.025</td>
<td>N-S</td>
</tr>
<tr>
<td>Critical Value</td>
<td>78.5</td>
<td>104</td>
<td>75</td>
</tr>
<tr>
<td>Females</td>
<td>73.4</td>
<td>10</td>
<td>106.1</td>
</tr>
<tr>
<td>Signif. (p&lt;)</td>
<td>.025</td>
<td>N-S</td>
<td>.01</td>
</tr>
<tr>
<td></td>
<td>.01</td>
<td>.005</td>
<td>N-S</td>
</tr>
</tbody>
</table>
CHAPTER V
SUMMARY AND CONCLUSIONS

This chapter is divided into five sections. The first section reviews and summarizes the previous four chapters. The second section discusses some of the qualifications and limitations of the study. These are not the only limitations to be found in the study, but appeared to be the most salient ones. The third section states the specific conclusions drawn from the results of the experiment. The fourth section presents some of the implications drawn from the conclusions, and the fifth section provides suggestions for future research.

Summary

Review of the Literature

A review of literature relevant to the study of comparative persuasibility between the sexes indicated that (1) sex differences have generally not been explored as often as might be expected, and (2) there exists a scattering of persuasibility studies which have examined the sex variable in relation to a wide variety of other variables. These include variables associated with: receiver characteristics, source effects, channel effects, environmental effects, and message effects. In all these areas, the accumulated body
of knowledge is less than definitive. Contradictory and inconclusive findings have provided only a variety of possible trends in the research. In all studies making sex persuasibility comparisons, the results indicated either that no difference existed, or that females were more persuasible than males.

A brief summary of the prominent findings associated with each category of variables includes the following:

**Personality factors**

Janis and Field (1959) found relationships between personalities and persuasibility for males only. Females were found to be generally more persuasible than males under all conditions. Allport and Lindzey (1960) found males and females scored differently on value scales, thereby indicating a possible underlying basis for differences in persuasibility. Diggory (1965) also reported women's attitudes are more closely organized around institutional norms than are men's attitudes. Whittaker (1965), and Kemp (1967), investigated, and found no basis for, the relationship of persuasibility to levels of masculinity-femininity.

**Credibility**

Paulson (1954) reported evidence that males are more sensitive to the credibility of the source of a communication than are females.
Sex of the speaker

Conflicting results have been obtained in this area. Knower (1935) found speakers more effective with audiences of the opposite sex, but Whittaker (1965a) reported males were more influential with both sexes. Haiman (1949) found no differences in effectiveness between the sexes of undergraduate speakers, although a male graduate student was more effective.

Environmental effects

Women appear to be more sensitive to the conditions of the persuasive situation than men, according to studies by Knower (1935, 1936). Furbay (1965) also found that women were more persuasible than men under all conditions, in testing the effects of seating arrangements on persuasibility.

Message characteristics

Cronkhite (1961) reported a tentative, and extraneous finding that men were more persuaded by logical arguments than were women. Women appeared to be slightly, but not significantly more responsive to emotional speeches than were the men.

Topic effectiveness

A large variety of topics have been employed in persuasibility studies, with divergent results. The effects of this range of topics on the various results cannot be assessed accurately; however, there were a number of
instances where topics appeared to be affecting the persuasibility results.

The problem and general hypothesis

The relationship between message topic and sex persuasibility appeared to be neither sufficiently examined, nor adequately controlled in the results reported in the research studies under review. A determination was made that the influence of this factor might be examined by a preassessment of the experimental subjects' level of involvement with potential message topics. On the basis of this preassessed level of involvement, varying kinds of topics could be selected and employed as the independent variable of a persuasibility experiment.

The general hypothesis of this investigation was that no differences in persuasibility would be found when involvement was equal for both sexes, but that persuasibility differences would be revealed under conditions of unequal topic involvement between the sexes. Furthermore, each sex was expected to shift more for topics which they were not involved with, than for topics with which they were involved.

Isolating the variables

In preparation for the experiment, three steps were necessary: A measure of the intervening variable of topic involvement was conducted in a preassessment test using the semantic differential. From the results of this test, topics
were selected that were suitable for testing the hypotheses, and messages were constructed to serve as the independent variable. Third, the measure of the dependent variable, or response to persuasion was developed as a booklet of questions and interval rating scales. The topics drawn for use in the experiment were consumer products which were to be physically introduced during the experimental session.

Experimental session

The experimental procedures included the following stages: (1) subjects rated their impressions of a consumer product on interval rating scales, (2) subjects heard a one-sided message related to the product, (3) identical interval scales were again rated, (4) subjects heard a second one-sided message, advocating a reverse position, and (5) subjects rated a third set of identical rating scales. Three different products were used in the experiment, each having the two one-sided messages, supporting first one, and then the other of the two brands, or positions under consideration for each product.

Results

The specific hypotheses governing this investigation were in part confirmed. No persuasibility difference was found between males and females under conditions of equal topic-involvement for both sexes. Under conditions of greater
male topic-involvement, females were significantly more persuaded than the males, however males were not more persuaded under the conditions of a greater female-involvement with the topic.

For within-group comparisons, females were significantly more persuasible for the male-involvement topic than for the female-involvement topic. There was no significant difference in persuasibility for males between the male-, and female-involvement topics; however, shifts were greater for the female-involvement topic.

Discussion
Qualifications

The conclusions drawn from the results of this study must be made in light of the following qualifications:

(1) The experiment was designed to test only the effects of differences in topics, and not differences produced by the specific delivery, content, sex of the speaker, or possible extraneous receiver variable effects.

(2) All subjects were college students who were in a limited, and therefore limiting age range. A relatively homogeneous college population can furthermore not be considered representative of the society as a whole.

(3) The size of the experimental subject populations was relatively small.
Limitations

A number of possible limiting factors are identifiable for this study within the experimental conditions utilized, and also in the topics used in the persuasive messages. These are not the only limiting factors, but appear to be the more important ones.

Experimental conditions

Recorded messages appeared to be a source of both strength and weakness in the study. Tape recorders were invaluable in standardizing the presentation and permitting rotated forms of presentation of the messages. Important variables were controlled, in part, under these conditions. However, this control automatically sacrificed some of the naturalness and the simulation of a realistic situation.

Message topics

The topics used in the experiment might limit the conclusions for a variety of reasons. The topics were based on preassessed measures of involvement for both sexes, however, it can only be assumed that the messages constructed for each of these topics, actually reflected the source, or underlying reasons for the various levels of high and low topic-involvement for each sex.
There is also the possibility, as with other persuasibility experiments, that shifts made by the subjects were made simply to satisfy the experimenter, rather than representing actual shifts of attitude. However, the design of this experiment attempted to reduce this possibility by requiring that attitude responses be made repeatedly in differing directions. The subjects were placed in a position of first making personal comparative judgments, and then having to contradict themselves in light of the content of each message. For each product, therefore, the subjects had to decide between three possible sources of conflicting information: their own evaluations, and the suggestions of the two opposing messages. This situation might be expected to reflect changes in the subjects' attitudes, and therefore their levels of persuasibility, since the conflicting sources of information would be a simulation of everyday attitude-change situations.

Conclusions

The following tentative conclusions are suggested by the data, subject to the specific conditions and operations employed in the experiment.

(1) No persuasibility differences are indicated between males and females when involvement with the topic is measurably equal for both sexes.
(2) Females indicate a significantly greater persuasibility than males when topic-involvement is measurably greater for males than for females.

(3) Males do not indicate greater persuasibility than females when topic-involvement is measurably greater for females than for males.

(4) Females indicate significantly greater persuasibility in response to a male-involvement topic than to a female-involvement topic. A significant negative relationship is therefore suggested for females between their level of involvement with the topic, and their level of persuasibility.

(5) As suggested by earlier studies, males do not indicate greater persuasibility in response to variations in the level of sex-involvement with the topic. No relationship is suggested for males between their level of topic involvement, and their level of persuasibility.

Implications

A major implication of this study is the possibility that experimental results of sex persuasibility studies cannot be meaningfully evaluated apart from the message topics in which the persuasibility factor occurred. The present study tentatively demonstrated that a predictable differential responsiveness to persuasive messages could be made on the basis of the choice of topics, particularly for females. If message topics can affect the results predictably, it seems
difficult to justify experimental procedures which do not rigorously control this factor when making sex persuasibility comparisons. Unless methods of topic preassessment are implemented for the sexes, there appears to be no reliable method for assessing the potency of a persuasibility difference when it occurs.

This study also indicated that females have a greater variance in responsiveness to different topics of persuasive communication, than do males. This greater variance was graphically demonstrated in Table Two, showing the responses to the three experimental topics. If future research shows any consistency in this greater message topic "sensitivity" on the part of females, the discrepant findings within the literature might, in part, be explained. Previously published studies have consistently reported two different results: either no significant difference was found, or females were found to be the more persuasible. The findings of the present study imply that these results might have been significantly affected by the experimenter's choice of topic. Both of the major findings of sex persuasibility studies could be interpreted in terms of the effects of the topics used. Studies showing greater female persuasibility may well have been related to unequal topic involvement between the sexes, just as studies showing no persuasibility differences might have been related to a greater equality in topic involvement for both sexes.
This interpretation is strengthened from the lesser variance of topic sensitivity demonstrated by males in this study. The lack of a demonstrable topic-sensitivity by the males might account in part for the reason why males have never been found to be more persuasible than females -- at least in known published studies designed to test such differences.

This difference in topic sensitivity between males and females is consistent with psychological personality literature, which suggests that the sexes "clearly differ in personality traits" (Tyler, 1963), and also that females indicate greater levels of verbal responsiveness (Lindzey and Goldberg, 1953). But just as it has proven unrealistic for the psychologists to attribute these differences solely to biological or environmental factors, so too is it difficult to relegate persuasibility differences to any either-or category.

Above all, the findings of this study imply the practical considerations that communicators should not rule out the potential of the message topic-involvement for contributing to varying levels of persuasibility, both between and within the sexes. The communicator might also infer from this study that under conditions of low-involvement, greater
levels of persuasibility will be obtained from both males and females, but especially for females.

**Suggestions for Future Research**

The tentative conclusions of the present study raise numerous questions. If future research is to be conducted using topic involvement as an intervening variable, the following questions might be pursued:

1. What factors or variables are inherent in message topics which contribute to greater and lesser levels of involvement: is it information level, masculine or feminine identification with the topic, ego involvement, or other factors?

2. How consistent is the predictability of sex persuasibility factors when the level of involvement for each sex is preassessed?

3. Females appear to have greater sensitivity to topics of persuasive messages. What are the important sources of this relationship? For example, is the greater sensitivity contingent on content as well as topic, or other factors?

The present study provides little information in response to these questions. The study was limited to an examination of message topics; it did not consider possible relationships of other factors related to the source, the message, or the channels of communication. These might include relationships between topic involvement, sex persuasibility and variables such as one-sided vs. two-sided messages,
logical vs. emotional presentations, source credibility, and others. Still other variables for consideration might stem not from characteristics, but rather from consequences of receivers' responses to a given communication situation. These would include such considerations as active vs. passive participation, commitment to a position, and perception of justification for adoptive behavior. There are, of course, countless other factors within the communication process which might also be considered in conjunction with topic involvement and sex persuasibility.
BIBLIOGRAPHY


APPENDIXES
## APPENDIX A

A SUMMARY OF MESSAGE TOPICS AND PERSUASIBILITY RESULTS
AS REPORTED IN PAST EXPERIMENTAL STUDIES

### Studies Showing Significantly Greater Female Persuasibility

<table>
<thead>
<tr>
<th>Researchers</th>
<th>Dates</th>
<th>Topics</th>
<th>Ss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Furbay</td>
<td>1965</td>
<td>Nuclear testing</td>
<td>Univ. Stdnts.</td>
</tr>
<tr>
<td>Whittaker</td>
<td>1964</td>
<td>Autokinetic</td>
<td>Univ. Stdnts.</td>
</tr>
<tr>
<td>Janis &amp; Field</td>
<td>1959</td>
<td>5-&quot;diverse&quot; subjects</td>
<td>adolescents</td>
</tr>
<tr>
<td>King</td>
<td>1959</td>
<td>45 - opinion items</td>
<td>adolescents</td>
</tr>
<tr>
<td>Strodbeck &amp; Mann</td>
<td>1956</td>
<td>Field-simulation of jury deliberation</td>
<td>actual jurors</td>
</tr>
<tr>
<td>Sikkink</td>
<td>1956</td>
<td>Voting age to 18</td>
<td>College Stdnts.</td>
</tr>
<tr>
<td>Kirkpatrick, Stryker &amp; Buell</td>
<td>1952</td>
<td>Attitude toward male sexual behavior</td>
<td>Univ. Stdnts.</td>
</tr>
<tr>
<td>Haiman</td>
<td>1949</td>
<td>National compulsory health insurance</td>
<td>Univ. Stdnts.</td>
</tr>
<tr>
<td>Knower</td>
<td>1936</td>
<td>Prohibition - written</td>
<td>College Stdnts.</td>
</tr>
<tr>
<td>Knower</td>
<td>1935</td>
<td>Prohibition - oral</td>
<td>College Stdnts.</td>
</tr>
<tr>
<td>Wegrocki</td>
<td>1934</td>
<td>Many opinion items</td>
<td>children(12-15)</td>
</tr>
</tbody>
</table>

### Studies Reporting No Significant Sex Persuasibility Differ.

<table>
<thead>
<tr>
<th>Researchers</th>
<th>Dates</th>
<th>Topics</th>
<th>Ss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass, et al.</td>
<td>1969</td>
<td>Janis &amp; Field test</td>
<td>Underweight, overweight &amp; normal Ss</td>
</tr>
<tr>
<td>Kemp</td>
<td>1967</td>
<td>Civil rights</td>
<td>Univ. Stdnts.</td>
</tr>
<tr>
<td>Thompson b</td>
<td>1967</td>
<td>Not given</td>
<td>Univ. Stdnts.</td>
</tr>
<tr>
<td>Greenwald</td>
<td>1965</td>
<td>Learning preferences</td>
<td>Jr. High Ss</td>
</tr>
</tbody>
</table>

*aArranged in chronological order.*

*bResearcher reported that he and a co-worker of an "as yet unpublished study," found no significant difference between sexes.*
# Studies Reporting No Significant Difference (Continued)

<table>
<thead>
<tr>
<th>Researchers</th>
<th>Dates</th>
<th>Topics</th>
<th>Ss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anderson</td>
<td>1962</td>
<td>Artistic/non-artistic ethos-topic not given</td>
<td>College Stdnts.</td>
</tr>
<tr>
<td>Whittaker</td>
<td>1965</td>
<td>Janis &amp; Field Test</td>
<td>Univ. Stdnts.</td>
</tr>
<tr>
<td>Abelson &amp; Lesser</td>
<td>1959</td>
<td>Responses to pictures &amp; taped peer voices</td>
<td>children</td>
</tr>
<tr>
<td>Cathcart</td>
<td>1955</td>
<td>Abolish capital punishment</td>
<td>Univ. Stdnts.</td>
</tr>
<tr>
<td>Sawyer</td>
<td>1955</td>
<td>Voting age to 18</td>
<td>Univ. Stdnts.</td>
</tr>
<tr>
<td>Dietrich</td>
<td>1946</td>
<td>Pro-Russia sentiments</td>
<td>Univ. Stdnts.</td>
</tr>
<tr>
<td>Cherrington &amp; Miller</td>
<td>1934</td>
<td>Attitudes towards war</td>
<td>Univ. Stdnts.</td>
</tr>
</tbody>
</table>

# Studies Reporting Inconclusive Sex Persuasibility Findings

<table>
<thead>
<tr>
<th>Researchers</th>
<th>Dates</th>
<th>Topics</th>
<th>Ss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cronkhite</td>
<td>1961</td>
<td>Logical/emotional speech (Logical= Ms &gt; Fs emotional = N.S.)</td>
<td>Univ. Stdnts.</td>
</tr>
<tr>
<td>Paulson</td>
<td>1954</td>
<td>Voting age to 18 (N.S., but Females shifted more)</td>
<td>College Stdnts.</td>
</tr>
<tr>
<td>Diggory</td>
<td>1953</td>
<td>Many opinion items (mostly no differ.)</td>
<td>College Stdnts.</td>
</tr>
<tr>
<td>Willis</td>
<td>1940</td>
<td>Germans, criminals, etc. (High school Ss = N.S.; college Ss, females greater)</td>
<td>High School Ss &amp; College Ss.</td>
</tr>
</tbody>
</table>
### APPENDIX B

FACTOR LOADINGS FOR BIPOLAR ADJECTIVES IN THE SEMANTIC DIFFERENTIAL INSTRUMENT

<table>
<thead>
<tr>
<th>Adjective Pair</th>
<th>Evaluative</th>
<th>Potency</th>
<th>Activity</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>good-bad</td>
<td>1.00</td>
<td>.00</td>
<td>.00</td>
<td>Osgood&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>positive-negative</td>
<td>.48</td>
<td>.00</td>
<td>.07</td>
<td>Osgood</td>
</tr>
<tr>
<td>familiar-strange</td>
<td>.45</td>
<td>.16</td>
<td>.15</td>
<td>Solomon</td>
</tr>
<tr>
<td>important-unimportant</td>
<td>.38</td>
<td>.04</td>
<td>.31</td>
<td>Osgood</td>
</tr>
<tr>
<td>meaningful-meaningless</td>
<td>.41</td>
<td>.04</td>
<td>.25</td>
<td>Osgood</td>
</tr>
<tr>
<td></td>
<td>.79</td>
<td>.28</td>
<td>.33</td>
<td>Tucker</td>
</tr>
</tbody>
</table>

<sup>a</sup>Sources: Osgood, et al., 1957; Solomon, 1954; Tucker, 1955.
APPENDIX C — SEMANTIC DIFFERENTIAL

NEW PRODUCT RESEARCH INSTITUTE
Northwest Region, U of W, Box 1663, Seattle, Washington.

NAME* MALE ☐ FEMALE ☐

OCCUPATION AGE
(if student, state year) (check proper square)

DIRECTIONS

Please Read Carefully

This booklet of interval scales is designed to obtain consumer opinions and meanings for different consumer products. This is not a test; there are no "right" or "wrong" answers. What we want is your own personal response to each of the scales.

Please rate the concept at the top of each of the following pages on the scales below. Note that there are seven steps on each scale. A check at one end of the scale means "extremely." If, for instance, you were rating the CONCEPT: DDT and checked the first scale as follows, it would mean that you felt the insect spray DDT to be extremely bad:

[Diagram]

A check in the position second from the end on any scale means "quite." A check in the position third from either end means "slightly." A check in the middle position on any scale means that you are neutral or undecided or do not feel that the scale applies to the concept. Only one position should be checked on any scale, but please check all scales. Place your marks on the lines, not on the dividers.

*Your name and opinion will remain anonymous — ALL DATA WILL BE TREATED CONFIDENTIALLY. (Your name on this paper is merely to keep papers from becoming lost.)

TURN THIS PAGE UNDERNEATH WHEN COMPLETED....
APPENDIX C — Continued

Sample Semantic Scales Sheet

<table>
<thead>
<tr>
<th>Concept</th>
<th>Scale</th>
<th>Opposite Concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bad</td>
<td>scale</td>
<td>Good</td>
</tr>
<tr>
<td>Active</td>
<td>weak</td>
<td>Passive</td>
</tr>
<tr>
<td>Positive</td>
<td>strange</td>
<td>Negative</td>
</tr>
<tr>
<td>Weak</td>
<td>strong</td>
<td>Strong</td>
</tr>
<tr>
<td>Familiar</td>
<td>feminine</td>
<td>Feminine</td>
</tr>
<tr>
<td>Masculine</td>
<td>important</td>
<td>Important</td>
</tr>
<tr>
<td>Unimportant</td>
<td>simple</td>
<td>Simple</td>
</tr>
<tr>
<td>Complex</td>
<td>meaningless</td>
<td>Meaningless</td>
</tr>
<tr>
<td>Meaningful</td>
<td>large</td>
<td>Large</td>
</tr>
</tbody>
</table>

Two scale orders were used in the semantic differential instrument, as represented here and on the following page. The 12 sheets of scales -- one concept per sheet -- were also rotated for each test booklet.
APPENDIX C — Continued

| 1. large          | small       |
| 2. meaningless    | meaningful  |
| 3. simple         | complex     |
| 4. important      | unimportant |
| 5. feminine       | masculine   |
| 6. strange        | familiar    |
| 7. strong         | weak        |
| 8. negative       | positive    |
| 9. passive        | active      |
| 10. good          | bad         |
APPENDIX D
RECORDED MESSAGES

The following messages are taken verbatim from the oral tape-recorded material used in this experiment. For an explanation of how these messages were employed, see Chapter Three: Order of Presentation.

Introductions and Instructions

General Introduction

As part of a regional marketing behavior study, we are conducting tests of various products from both regional and national manufacturers. We are seeking your evaluations of brands of rather specialized products. Before we continue, please read and fill-in the blanks on the first page of your response booklet. . . . (bell).

You will be asked to compare and evaluate these different brands of products from competing manufacturers. As you consider each of these products, you may feel that they do not directly concern you personally. Please attempt to identify as much as possible with the problems concerning each product and overlook any possible lack of direct experience with the product. Past research has shown that even in products affecting only specialized users, the accuracy of responses is increased when diverse audiences of consumers are used.

Now, please turn to the second page of your booklet. You will notice there are a list of scales. In just a moment you will be asked to mark each of these scales. But first please read the instructions at the top of the page. . . . (bell).
Product Introduction (used for both Dry Flies and Panty Hose)

The products to be evaluated on this page of rating scales are ___________. The assistant will at this time pass out samples for your inspection. The two brands you will be examining are from separate, competing manufacturers. Please examine them briefly and pass them on; then, complete this first page of rating scales. If you have any questions about how to answer the scales, raise your hand, and the assistant will help you. Please fold the page under once you have completed the scales; remember to place one mark on each scale on the page . . . (bell).

Pre- and Post-message Instructions

The following is a brief message based on information from the manufacturer of Brand ____. Please listen carefully before completing the page of scales.

(Message)

Now, please fill-in the page of scales and turn the page over . . . (bell).

Product Introduction (birth control pills)

The product to be evaluated on this page of rating scales is birth control pills. Please rate each scale according to your own personal feelings in response to the question above each scale. If you have any questions about how to answer the scales, raise your hand, and the assistant will help you. Please fold the page under once you have completed the scales; remember to place one mark on each scale on the page . . . (bell).
Pre- and Post-Message Instructions

The following is a brief message concerning the controversy over birth control pills. Please listen carefully before completing the page of scales.

(Message)

Now, please fill-in the page of scales and turn the page under. . . .

(bell).

Messages

Supporting Argument—Birth Control Pills

The College of American Physicians and Surgeons has become concerned recently that the great benefit of the birth control pill may be by-passed because of alarmists' reports of slight danger. They feel that recent impassioned distortions only becloud the truth about the Pill.

Since the Pill is one of the most powerful drugs ever placed in widespread, regular use, it is not surprising that those taking it are exposed to certain dangers. No drug is perfectly safe, physicians point out; one of every thousand people is hypersensitive to aspirin. The risk of death from the Pill is far less than that from pregnancy or car crashes.

There is, furthermore, no evidence to date that links the Pill to cancer, as some questionable sources have implied. So far doctors have seen no increase in breast or uterine cancers among users. As with all powerful drugs, some users may experience side effects—perhaps one in every 10 women—but the body usually adjusts to the Pill after a few months' use.

Any possible dangers of taking the Pill must be set against the greater hazards of pregnancy. For three weeks after a normal pregnancy and delivery, the risks of blood clotting, called thromboembolism are greatly increased, and even during pregnancy may be slightly increased. Dr. David Danforth of Northwestern, representing the Physician's Congress, has calculated there are far fewer cases of thromboembolism among pill takers, than with women during pregnancy and after delivery.

Clotting problems aside, pregnancy also carries other risks, including fatal complications associated with high blood pressure and kidney disorders. Other contraceptive methods are far less effective, and unwanted pregnancy involves the risk of illegal, septic abortion, which is notoriously hazardous to life.
Opposing Argument—Birth Control Pills

Anti-Pill crusaders, including many physicians, are demanding that the Birth Control Pill be taken off the market, claiming that it is killing scores if not hundreds of American women every year, maiming many more, and making others infertile. The doubts have caused the Federal Drug Administration to send out a letter of all U.S. physicians, advising them to discuss the risks of the Pill with each of their patients. It is also considering requiring Pill manufacturers to furnish users with a detailed warning about potential hazards.

It is now definitely established that pill-users run a slightly greater risk of developing dangerous clots in their blood vessels than non-users. Such blood clots, called thromboembolic disease, can kill if they come loose and are swept by the bloodstream into vital organs. Three out of every 100,000 women on the Pill will die of thromboembolic disease this year.

Another major unsolved question is whether or not the pill may cause cancer. There are grounds for suspicion. For a number of years, researchers have known that estrogen causes various kinds of cancers in species of animals. This is considerably more damaging than the evidence against the cyclamates which were banned by the FDA.

As many women use the Pill for longer periods of time, doctors are discovering that it produces a number of subtle metabolic changes. This is in addition to the more conspicuous side effects of headaches, menstrual disturbances, nausea, depression, breast tenderness, nervousness, leg cramps, and loss or gain of weight.

There is also the possibility of long-term after-effects whose character may be hidden now. Some specialists believe the Pill may cause infertility. FDA Biologist Marvin S. Legator points out that scientists do not know the answers to many of these questions and urges that animal experiments exploring the matter must be started.

Recorded Messages—Dry Flies

Brand S

When fly fishing, the angler takes a few feathers and other natural materials tied to a hook, and presents them to a fish in an alluring manner so that the fish will strike. This calls for definite skill on the angler's part, but the quality of the fly is extremely important. Brand S is an exclusive dry fly, made with natural non-absorbent materials so that the fly will stay afloat and imitate insects that have fallen on the water. The natural fan wings, or hackle, of Brand S makes it a joy to use, since it is almost impossible to sink, and the natural materials make it easier to see in poor light. Brand S flies are superior to commercially-tied flies, because of their handcrafted, perfect balance, and the stiffness of the hackle. Real hair
tails and bodies make them float much better than flies tied with heavier synthetic materials. The hand tying also permits a reversal in the hackle, which stays in position much better than the hackle of machine-tied flies. Dry fly fishing calls for distinctive techniques and special types of flies. Brand S does not compromise its dry fly quality to attempt to satisfy all conditions of fly fishing. It is a carefully hand-tied fly of superior effectiveness, durability and appearance.

Brand L

For an artificial fly to be successful, it must imitate the insects the trout are feeding on. Since trout vary their feeding patterns, the more versatile the fly, the better. Brand L used semi-absorbent synthetic materials which imitate both flying and water-bound insects. The Brand L fly floats on the surface, then gradually absorbs water and submerges to become a water-bound nymph. This is a distinct advantage, since many insects spend more than 90 per cent of their life in the water, and are air-borne only a day or two before they die. Brand L can be used year-round, since some types of nymphs will be at the bottom of a stream at virtually any time of the year. This combination fly is made with Herl, a synthetic material used only by the manufacturer of Brand L. It also has the advantage of being machine manufactured, costing half as much as hand-tied flies. This is important, since trees, brush and underwater growth are frequently snagged, and rapidly deplete an angler's fly packet. The same fly patterns have traditionally been tied dry and wet flies. Brand L has succeeded in combining the best features of both wet and dry flies, which makes it hard to beat.

Recorded Messages--Panty Hose

Brand L

Fibers are today one of the most important considerations when purchasing nylon stockings and panty hose. This is why Brand L is such a breakthrough to the consumer. A product of recent industrial research, the fiber in Brand L is called Cantril and is a wrinkle-free crimp nylon that's designed to fit and feel better. Unlike the other brand, it is not as coarse nor as susceptible to sagging. Brand L will sell at slightly above today's panty hose prices, yet the increase will be justified by its elegant appearance, fit and feel. This panty hose represents the culmination of twenty years of research into nylon weaving, providing the most elegant look and feel of any panty hose on the market.

In summary then, Brand L is noted particularly for its fit and elegant feel.
Brand A

Brand A represents the culmination of highly-innovative research within the nylon industry. The fiber in Brand A is called Agilar and is far more resistant to runs and snags than the other brand. This panty hose design utilizes a unique new contour construction which promises to combine outstanding fit with high durability. Research, in fact, has shown Brand A is far more durable than any other panty hose on the market. This gain in durability is not at the expense of fit. The name Agilar also refers to another quality: the fiber's multi-directional stretch quality will provide greater freedom and agility of movement.

In summary, then, this brand, Brand A, is noted particularly for its fit and durability.
EXPLANATION

Please Read Carefully

This is a survey to find out what opinions consumers have on developments from new product research. This is not a "test" or "examination." There are no "right" or "wrong" answers to these questions. They are just matters of personal opinion on which some people have one idea while other people have a different idea. What we want is just your own honest, personal opinion on these questions, given to the best of your knowledge and understanding.

OCCUPATION (if student, state year)

Age (optional)________________

CHECK APPROPRIATE SPACE

MALE ____  FEMALE ____

---

Form 26 
aActual booklets contained three pages of identical rating scale pages for each product

Tape _____
INSTRUCTIONS

Please rate the separate questions on the scales that follow. Note that there are seven steps on each scale.

A mark at one end of the scale means extremely. A mark in the position second from the end means quite. A check in the position third from the end means slightly. A check in the middle position on any scale means that you are neutral or undecided or do not feel that the scale can be answered.

Only one position should be checked on any scale, but please check all scales. Place checks on the lines, not on the dividers.

Which fly has the sturdiest construction?

Which fly would be the best "buy" for the money?

Which fly would be the more durable?

Which fly has the best appearance?

Which fly has the better quality materials?

Which fly looks the most natural?

How would you rate your general confidence in the decisions you have made in the above scales?
Please rate the separate questions on the scales that follow. Note that there are seven steps on each scale.

A mark at one end of the scale means extremely. A mark in the position second from the end means quite. A check in the position third from the end means slightly. A check in the middle position on any scale means that you are neutral or undecided or do not feel that the scale can be answered.

Only one position should be checked on any scale, but please check all scales. Place checks on the lines, not on the dividers.

The Pill is the most effective contraceptive device.

The Pill can cause cancer if used for a prolonged time by some women.

The body usually adjusts to birth control pills just as it adjusts to practically all drugs.

The F.D.A. should ban the pill until more testing provides evidence that it is a relatively safe product.

There is no scientific evidence that links the pill to cancer, only statistical speculation.

Thromboembolism (blood clotting) is a major disease among women, and the pill is a leading cause of thromboembolism.

How would you rate your general confidence in the decisions you have made in the above scales?
INSTRUCTIONS

Please rate the separate questions on the scales that follow. Note that there are seven steps on each scale.

A mark at one end of the scale means extremely. A mark in the position second from the end means quite. A check in the position third from the end means slightly. A check in the middle position on any scale means that you are neutral or undecided or do not feel that the scale can be answered.

Only one position should be checked on any scale, but please check all scales. Place checks on the lines, not on the dividers.

Which stocking do you think has the better feel?

Which stocking do you think has the better weight?

Which weave do you like better?

Which stocking would have the better fit?

Which stocking would be more durable?

Which stocking would be the better "buy" for the money?

How would you rate your general confidence in the decisions you have made in the above scales?