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EFFECTS OF STATUS AND GENDER OF AUTHOR AND SEX OF  
READER ON EVALUATION OF AUTHOR CREDIBILITY

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EFFECTS OF STATUS AND GENDER  
OF AUTHOR AND SEX OF READER  
ON EVALUATION OF AUTHOR CREDIBILITY

by

Allyn Elaine Lawrence

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A Dissertation Submitted to the Faculty of the  
DEPARTMENT OF READING  
In Partial Fulfillment of the Requirements  
For the Degree of  
DOCTOR OF PHILOSOPHY  
In the Graduate College  
THE UNIVERSITY OF ARIZONA

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THE UNIVERSITY OF ARIZONA  
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As members of the Final Examination Committee, we certify that we have read  
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## ABSTRACT

The purpose of this study was to investigate the relationships among and between three factors that were hypothesized to affect a reader's evaluation of an author of persuasive material as credible or not. The three factors examined were the following: (1) the occupational status of an author; (2) the gender of an author; and (3) the gender of the reader.

The instruments used in the study included a questionnaire, ranking and rating scales, and a set of four persuasive articles with corresponding response scales. The questionnaire was used to obtain a list of relevant and controversial topics. The ranking and rating scales were used to determine the order of preference or importance of each topic and the attitudes concerning the issue. The four persuasive articles were written by the researcher in a letter-to-the-editor format. Each article was attributed to a male author associated with a high and low status occupation, and to a female author associated with a high and low status occupation. Each article version was accompanied by a response scale. Subjects were to rate their feelings regarding the credibility of each author.

Subjects for the study were freshman and sophomore sociology students at The University of Arizona. A total of 223 students participated in the study.

Significant differences were found regarding author occupational status. For two of the persuasive articles, the high

occupational status author was rated as more credible than the low status occupation author regardless of author or reader gender. Significant differences were also found for reader gender. Female readers overall rated authors as more credible than did male readers for two of the persuasive articles. No significant differences were found regarding author gender.

## CHAPTER 1

### STATEMENT OF THE PROBLEM

The purpose of this chapter is to present the (1) background of the study; (2) statement of the problem; (3) justification of the study; (4) definition of terms; (5) assumptions; and (6) limitations.

#### Background

Critical reading is the judgment of the veracity, validity, or worth of what is read. These judgments are based on a specific set of standards or criteria set by the reader through previous experiences (Robinson, 1967). King, Ellinger, and Wolf (1967, p. v) state that, "critical reading may be considered as a sub-set of comprehension skills within the total framework of reading." Yet, as the authors state, "they are unique in the emphasis placed on analysis and evaluation according to established criteria."

One essential aspect of critical reading is the identification of the source and a comparison of sources of information (DeBoer, 1967). Critical reading encompasses an awareness of the author's qualifications and intent. The critical reading process involves a judgment of the reliability of the source, the alleged authority, and an analytical and judgmental critique of what is read. In addition, the reader must judge the logic or illogic of the writer (Dale, 1967; DeBoer, 1967; Ennis, 1967; Robinson, 1967).

Evaluating an author as a competent and credible source of information is a skill cited in the literature as a necessary skill for reading critically (Huus, 1967; McKee, 1948). In order to do this, the reader must examine the qualifications and intent of the author (Robinson, 1967). In addition, the reader must assess the accuracy of an item or fact presented in relation to the reliability of the source of information. The relevancy, accuracy, and validity of facts and arguments presented must be appraised (DeBoer, 1967). These skills are particularly important when reading persuasive materials. A reader may have to make specific judgments not only about the author's attitudes, beliefs, and values, but also about personal reactions, values, and beliefs. In other words, the reader must evaluate and judge the veracity of the material in comparison to personal knowledge and experience.

#### Statement of the Problem

The purpose of this study was to determine the relationships among the following three factors in regard to the credibility of authors of persuasive material. The three factors include: (1) the status of the author; (2) the gender of the author; and (3) the gender of the reader.

More specifically, the following questions were investigated:

1. Does the gender of the author of persuasive material affect the reader's general evaluation of the credibility of the author?

2. Is the reader's evaluation differentially affected when the author of persuasive material is of high or low occupational status?
3. Does the reader's own gender affect his or her evaluation of an author as credible or not?
4. What interactions exist among the author's gender, the reader's gender, and the occupational status of the author?
5. Does the nature of the topic or controversial issue have any effect on the relationships among reader evaluation of author credibility, gender of author, occupational status of the author, and reader gender?

#### Justification

One recent study was located that investigated several variables presumed to affect author credibility. Anders (1976) isolated four factors which might affect the reader's evaluation of an author as a credible source of information. She examined: (1) the occupational status of the author; (2) the gender of the author; (3) the gender of the reader; and (4) the sex-role-identity of the reader as measured by the Bem Sex-Role-Identity Inventory.

In order to study these factors, Anders used two instruments. The first instrument was a group of nine occupationally-related letter-to-the-editor articles accompanied by modified semantic differential scales. The nine articles were attributed to male, female, and gender unknown high status authors; male, female, and gender unknown middle status authors; and male, female, and gender unknown low status authors.

The second instrument was the Bem Sex-Role-Identity Inventory which assessed the sex-role-identity of the reader.

The subjects in the study consisted of 165 college freshmen and sophomores in introductory sociology and psychology classes and one English composition class. Specifically, Anders examined the effect of these factors on college students' evaluations of an author as credible or non-credible.

Anders found that the gender and status of the author had no statistically significant effects on the reader's evaluation. However, two noteworthy trends resulted. First, an examination of the data for the total pooled group of subjects revealed that the male-author versions for all three occupationally-related status levels tended to be judged as more credible than the articles attributed to females or articles for which the gender of the author was unknown. Second, the female subjects alone tended to judge the articles for which author gender was unknown as more credible than either male or female author versions.

Anders suggested four factors which may have affected the results of her study. These were: (1) the non-controversial nature of the articles; (2) the relevance of the articles; (3) the neutral or author gender unknown category; and (4) the use of a five-point semantic differential scale.

First, the articles developed by Anders were informative and not controversial or persuasive in nature. After reexamining the literature related to controversial articles, Anders concluded that perhaps the evaluation of an author as credible is a more meaningful task if the

articles being read are of a controversial nature. Therefore, the actual issues discussed may affect the reader's use of the various factors in order to determine the credibility of an author.

The second possible explanation, the relevance of the articles used, was also discussed by Anders. She suggested that source credibility may be an important factor when the information is of high relevance to the receiver. Anders suggested that if the information had been more important and relevant to the readers, the results might have been different.

A third possible explanation for the results had to do with the use of the author gender unknown category. Anders suggested that the variance may have been suppressed due to this category. Subjects did not have to make clear-cut decisions as to whether they believed the female source or the male source. The author gender unknown article versions may have acted as a suppressor variable.

The fourth explanation dealt with the five-point semantic differential scale used in the study. Anders suggested that a seven-point scale might have provided for more variance.

As a result of these four explanations, Anders suggested a modification of her study using essentially the same design but adjusting for these four issues. This study attempted to extend the Anders study by incorporating her suggestions and using a similar design. However, in this study, the sex-role-identity of the reader was not examined, since it did not seem to contribute any significant trends or findings in the original study by Anders. In addition, the format of

the articles was changed from informational to persuasive writing and the subjects were asked to rate their reactions on a seven-point modified semantic differential scale.

#### Definition of Terms

The following terms were used in this study in the manner described below:

1. Controversial topics--those topics thought to involve a dispute, especially between sides holding opposing views. These topics are often the focus of persuasive communication.
2. Credibility--more precisely source credibility which refers to the communicator's importance in the persuasive communication situation. Credibility cannot be defined as a single characteristic of an individual, nor is it a set of characteristics. Credibility is a set of perceptions by the reader or receiver (Bettinghaus, 1968).
3. Critical reading--critical reading has been defined "as an analytical and evaluative process which requires the reader to make rational judgments about both the content and style of writing based upon valid criteria" (King, Ellinger, and Wolf, 1967, p. v).
4. Persuasive communication--persuasive communication by nature must involve a conscious attempt by one individual, such as an author or speaker, to change the behavior of the receiver (an individual or group) through the transmission of some message. Such communication implies a judgment of the situation in terms

of the intentions of the communicator and the resultant behavior of the receiver (Bettinghaus, 1968).

5. Prestige--prominence or influential status achieved through success, admiration, or wealth. A term often used synonymously with status in persuasive communication situations. For example, the importance of the differential status attached to different role positions by the receiver is that the higher the prestige attached to any given position, the more likely is the individual occupying that position to be influential in a persuasive situation (Bettinghaus, 1968).
6. Status--status and prestige are often used synonymously, especially in association with persuasive communication situations. Status often refers to the relative position or standing of an individual such as social position or socioeconomic level.

#### Assumptions

This study included the following assumptions:

1. Since the articles in the study were written from a seventh- to ninth-grade readability, it was assumed that the subjects would be able to read at least at a ninth-grade reading level.
2. Subjects in the study responded honestly to the instruments.

### Limitations

This study includes the following limitations:

1. Only one high status occupation was used, and only one low status occupation was used.
2. The administration of the instruments was restricted to subjects attending general introductory sociology classes at The University of Arizona, Tucson.
3. Only a selected number of topics was used as a basis for the articles read by the subjects in the study.

## CHAPTER 2

### REVIEW OF THE LITERATURE

The purpose of this chapter is to review selected literature regarding the factors that affect the evaluation of an author or source as credible or non-credible. Specifically, the review will focus on the factors of: (1) the status or occupational status influences; (2) the gender of the author; (3) the gender of the reader; and (4) the influence of the content of the message.

#### Critical Reading and Credibility

Credibility or source influence literature spans many fields. In particular, the importance of source evaluation has been alluded to in the area of critical reading. Critical reading calls for an analysis and evaluation of what is read according to established standards set by the reader. A critical reader should be able to judge the validity and worth of what is read.

However, not only the evaluation of the quality, style, and worth of what is read is important. In addition, a proficient critical reader should have the ability to evaluate the competency of the source. Specifically, the judgmental critique of the material read should be made in combination with the judgment of the author's competency, qualifications, and intent (Dale, 1967; DeBoer, 1967; Ennis, 1967; Robinson, 1967; and Spache and Spache, 1973).

A valuable and extensive addendum to the literature in critical reading regarding the influence and evaluation of the source has been the literature in the fields of sociology and social psychology. This research specifically has been concerned with the factors influencing source credibility. The crucial focus has been on trying to determine what credibility is and effects of source credibility on receivers of messages.

According to this literature, source credibility has been most often defined as a set of listener or receiver perceptions about a source's believability or acceptability. Evidence does exist supporting the notion that sources perceived as highly credible are also more effective in persuasion (Haiman, 1949; Hovland and Weiss, 1952; Hovland, Janis, and Kelley, 1953; McGinnies, 1973).

An extensive number of studies attempting to define the dimensions of credibility are available (Berlo, Lemert, and Mertz, 1961; Hovland, Janis, and Kelley, 1953; McCroskey, 1966; and McCroskey, Jensen, and Todd, 1972). The dimensions of credibility are most often identified in these studies include trustworthiness, competence, dynamism, and sociability. It becomes apparent that the notion of credibility is complex. Not only does it involve an examination of source characteristics, but it also requires an examination of receiver characteristics and perceptions.

Bettinghaus (1968) emphasized that credibility is not a single characteristic of an individual or source of information. Neither is it a set of characteristics. He proposed that credibility is a set of

perceptions by the receiver. The specific characteristics of the source such as age, sex, or socioeconomic status may affect the perceptions that the receiver has, and thus they become relevant to the study of credibility. A receiver characteristic which has been identified in relation to perceiving a source as credible is that of the gender of the receiver.

#### Research Regarding Status

The socioeconomic status of the source was one characteristic cited earlier which might influence receiver perceptions concerning the credibility of the source. That is, the reader attributes a certain level of prestige or status to the source according to the known characteristics of the source such as the occupation. Often, the differences in the prestige or status attached to an occupation are used in defining the social status of the occupation (Reiss, 1961). Reiss (1961, p. 1) notes that, "whenever subjects are asked to evaluate or judge the rank, position, or standing of occupations, most investigators refer to the 'prestige-status' of the occupation . . . so that the occupations may be rank-ordered by differences in their prestige status."

George Counts (1925) completed the first major study regarding the social status of occupations by measuring the prestige of various occupations. The subjects in his study rank ordered 45 occupations in terms of the social standing thought to occur in society. The Counts study served as a model for a large number of other investigations which continued to support the notion that occupations are a reflection of social status or prestige (Deeg and Paterson, 1947; Duncan, 1961;

Glick and Miller, 1956; Hodge, 1962; Inkeles and Rossi, 1956; Medvene and Collins, 1974; Smith, 1943).

Triandis, Vassiliou, and Thomanek's study (as cited by Triandis, 1971) supported the notion that high socioeconomic status is correlated with occupational status. Based on this notion, they predicted that a higher level of occupation would bring about a high level of respect when judged by a heterogeneous sample of the adult population.

Additional sociological research seems to support the view that occupational status is closely related to socioeconomic status. Hodge (1962) examined status consistency and the functional relationship among education, occupation, and income. He found that an individual's occupation is the single most consistent aspect of a person's life.

Occupational prestige was also studied by Medvene and Collins (1974). They found that certain occupations are regarded as having a higher prestige or status with a great deal of consistency. Therefore, it seems reasonable to assume that occupational status might be an author characteristic that could affect the reader's perceptions and judgment of that author.

This notion is supported in a study by Inkeles and Rossi (1956). This study examined the prestige or status accorded an occupation. Specifically, the investigators were interested in determining whether or not persons with a high socioeconomic status would also be regarded as having a high occupational status in society. They found that occupations were ranked in a relatively standard hierarchy and that the hierarchy of prestige was associated with the industrial system. For

example, adult subjects perceived those employed in a high status occupation such as a doctor or lawyer as also having a high socioeconomic status regardless of the actual income earned. Similarly, persons perceived to be in low occupational status occupations such as truckers or clerks were perceived to be of a low socioeconomic status.

Bettinghaus (1968) emphasized the importance of the differential status attached to the source of information. The higher the prestige or status a source is perceived to have, the greater the potential influence in a persuasive situation. This supports the conception of using rankings of occupations in order to vary author status. In other words, the occupation of an individual places the person in a specific role position. People naturally prescribe a set of behaviors to various role positions and this influences the perceptions about the individual. Receivers accord high or low status to various occupations and therefore to the individual occupying that role position. The receiver perceptions of the status of the source may be one major indicator of the perceived credibility of the source and indicate the source's potential influence in a persuasive situation.

Berlo, Lemert, and Mertz (1966) suggested, as an outcome of their examination of source credibility, that one factor related to the perception a reader has of the source as credible is the attributed qualification or expertness with which the source is associated. A person might be rated as qualified if he is considered experienced, trained, skilled, authoritative or intelligent, and informed.

The Berlo et al. (1966) study examined real life characters or public figures such as James Hoffa. The respondents were asked to rate the various sources by using a seven-point rating scale. For example, the subjects rated Hoffa using polar adjectives such as pleasant-unpleasant; skilled-unskilled; or sincere-insincere. The researchers were able to find some common ways of judging. They suggested that there is a set of perceived characteristics that a reader uses to determine the credibility of a source and his persuasive ability. For example, if an individual was rated as having all the characteristics of a highly credible source (sincere, pleasant, skilled, active), then the source would be perceived as having greater persuasive abilities. Berlo et al. also hypothesized from their study that the topic the source was talking about made no difference. The attributed personality was the deciding force in attitude change.

A study conducted by Anders (1976) presents conflicting results regarding the influence of status or prestige on credibility ratings. Anders investigated the relationships among and between the occupational status of the author, the gender of the author, the gender of the receiver or reader, and the sex-role-identity of the reader. Anders had readers evaluate male authors that were associated with high, average, and low status occupations and female authors associated with the same high, average, and low status occupations. In addition, she examined the evaluations for author gender unknown article versions and the influence of the subject's sex-role-identity. All article versions were informational and were written in a letter-to-the-editor format. The

results of her study failed to support the hypothesis that the occupational status of the author affects the reader's evaluation of that author as credible or not. Of particular importance is the fact that Anders used informational material as opposed to persuasive material. She suggested that her results might have been different if persuasive material had been used.

Bettinghaus (1968) suggested that the status or the prestige associated with a source of persuasive material triggers a set of perceptions which a reader or receiver attributes to the status source. These perceptions are used to judge the credibility of the source. Specifically, the socioeconomic status of the source may affect the receiver's judgment of that source as credible. The previously cited literature supports the notion that the occupation of a person is a reflection of social status.

The general consensus among researchers investigating status or prestige is that ranked occupations reflect or are a good indicator of the perceived status. It can safely be assumed that occupational status and social status are directly related. Of particular importance to this study is the conception that the author's status may affect the reader's evaluation of that author as credible or not. This may be especially true for persuasive material.

The following two sections pertain to research regarding sex-biases. The first section deals with the influence of the gender of the author on credibility, and the second section pertains to the influence of the gender of the reader on credibility ratings. A great

deal of overlap exists in the research discussing these two variables. Often, both are considered in one study. For the purposes of this review, the results are discussed in the appropriate sections; however, they may be a part of one study. In addition, the procedures of each study will be described in only one section in order to avoid repetition.

#### Gender of Author

A second variable which has been cited in the literature as affecting author credibility is that of the gender of the author--specifically, the relationship between the reader's perceptions of the author as credible or non-credible and the gender of the author. Two key studies have examined this relationship.

The first was a study conducted by Philip Goldberg (1968) in which he investigated the extent to which women are prejudiced against women. He had college women evaluate the credibility of six articles which had actually appeared in professional literature. Taking these six articles, he manipulated the names of the authors by attributing identical articles to both a male and a female author. He had the female subjects evaluate the articles and found that these women consistently and significantly judged the male-attributed article versions as more credible than those same articles attributed to female authors.

Mischel (1974) replicated the Goldberg study by using articles from the same fields. However, she included males in her study. She found that sex bias was a function of both the particular field in which the work was being judged and the education level of the subjects doing

the evaluation. Sex bias, in other words, was highly specific to certain fields and changed as the education level of the subjects changed.

As Bettinghaus (1968) suggested, and as these two studies contend, the gender of the author does seem to be a factor which affects the evaluation or perceptions of the reader toward the credibility of the author. However, as has been pointed out in a critique of these two studies, the question concerning the judgment of authors who were varied by gender and status as compared to the judgment of authors of the same gender and status has been ignored.

Several studies have followed from the Goldberg research. A study following the paradigm used by Goldberg (1968) further explored differences in prejudice toward women. Pheterson, Kiesler, and Goldberg (1971) asked 120 women students to rate paintings attributed to either a male or female artist who was either entering a painting or was a winner in a contest. Female entries in the art contest were judged less favorably than male entries. A significant interaction was found between the gender of the artist and the status of the paintings. That is, no differences were reported when the paintings of both men and women were described as winners. Prejudice against women was strongest when the technical competence had not been substantiated for those women struggling to be successful.

A study by Piacente et al. (1974) also examined the notion of competence. Two hundred and fourteen students in an introductory psychology course were asked to view films that varied only by the gender of the actor and the competence of the actor. Piacente et al.

found that students did evaluate the performance of the experimenters (the actors) differently according to their gender and competence. Males and females were judged equal in terms of competence when relatively little ambiguity existed as to the competence in a role. On the other hand, females were judged as significantly less competent than males acting in the same manner when a reason to doubt an actor's competency existed. In addition, the study demonstrated that estimates of "femininity" will covary with estimates of competence.

Three subsequent studies also lend support to Goldberg's findings. In a study by MacBrayer (1971), women perceived themselves as being more dependent on men while men did not show such a dependency. Because of the socialization process in the United States, many women, including professional women, tend to stereotype themselves as inferior or incompetent in comparison to men. Barnett (1975) suggested that internal obstacles such as attitudinal barriers arising from early socialization might cause women to prefer less prestigious occupations while men prefer more prestigious positions. In a less prestigious occupation, the women would most likely be in less competition with men, thereby allowing for more chance to be subservient or dependent upon men.

The previous studies lend support to the conclusions that women as a group tend to devalue themselves and perhaps even see themselves as less competent than men. This notion is supported in a study by Baruck (1974) in which women see themselves as less competent than men particularly in the areas of having ability, being logical, possessing leadership, and being independent.

A final study emulating the Goldberg paradigm was conducted by Noel and Allen (1976). The authors wished to assess sexism and racism among non-college Caucasian adults. Radical and neutral student editorials were attributed to authors varying in sex and ethnicity. The radical editorial dealt with giving minority students preference for scholarships, and the neutral one dealt with the quality of dormitory food. The editorials were attributed to either John Robinson or Joan Robinson (representing a Caucasian author) and to Juan Rodriquez or Juanita Rodriquez (representing a Mexican-American author). The results of the study indicated a significant sex bias. Not only were the subjects less likely to agree with conclusions reached by the Mexican-American authors, they also rated editorials written by female authors and Mexican-American authors as lower in quality. In addition, radical articles were rated lower in quality than neutral articles. Male and female subjects overall showed the same prejudices.

Studies presenting conflicting conclusions with those of Goldberg and other studies include one by Ferber and Huber (1973). These investigators asked 1,300 college students to evaluate former instructors. The most favorable evaluations were obtained from women students for women teachers. They concluded that females were less affected by the sex of the author or source. However, they suggested that male students were more likely to agree with statements made by male scholars.

Hensley and Waggoner (1979) reevaluated the Goldberg study in order to reconsider the conclusion that women are prejudiced against

women. The purpose of the study was to investigate whether women might still exhibit a bias toward other women when both the listener and speaker are unknown to one another. The data demonstrated that college aged persons do not exhibit bias toward real communicators of either sex even when the communicators were personally unknown. The authors suggested that bias appears more frequently in studies where the stimulus person or person who is being evaluated is both hypothetical and unknown. In contrast, when the stimulus person either known or is not hypothetical, then the bias does not appear.

In a study more directly related to credibility, Savary (1978) was not able to confirm her hypothesis that the sex of the source would affect the perceived credibility of the source. Male sources were not ranked higher than female sources regardless of whether the message was videotaped, tape recorded, live, or printed. The author suggested that assumptions regarding the medium of communication and about males possessing greater credibility than females need to be reevaluated.

Anders (1976) also attempted to find differences between credibility ratings of male and female authors. Although her results were not significant, she noted a trend for the total pooled group of subjects to rate articles attributed to males as more credible than the same articles attributed to females regardless of the occupational status attributed to the author.

Miller and McReynolds (1973) conducted a study using persuasive messages. The results of the study failed to show any differences in the persuasiveness of the messages regardless of whether it was

attributed to a male or female communicator. However, both male and female respondents viewed the female message source as less competent than the male source. Further, the females were more likely to rate females lower than male subjects rated them. It should be noted that the topic of the message was not one generally considered as one females would be involved with. The topic was a persuasive message favoring an expanded ABM missile system. For that matter, it is not a topic a large majority of males or females would be familiar with.

The studies presented thus far provide inconclusive evidence in regard to sex biases. However, a tendency exists for male authors to be perceived as more credible than female authors by both men and women receivers. Yet, women are considered equal to their male counterparts when professional competency has been established.

#### Reader Gender

A third variable which might have an effect on the reader's evaluation of an author as credible or not is that of the gender of the reader. As noted earlier, a large portion of the studies examining the influence of author gender also include an examination of the effects of reader gender.

One of the most widely cited studies regarding sex-based perceptions is Goldberg's (1968) research which was previously described. Goldberg examined both author and receiver gender influences. The results indicated that American college females were far more critical of scholarly work attributed to other females in that they devalued essays

attributed to women in comparison to the same articles attributed to men. That is, female respondents judged female authors as less credible sources than male authors. Goldberg concluded that women consider other women as inferior.

In 1974, Mischel replicated the Goldberg study by using articles from the same fields. As did Goldberg, Mischel found that female respondents judged female authors as less credible sources than male authors even when the topics related to typically female dominated professions (i.e., elementary education, nursing, and dietetics).

A study by Miller and McReynolds (1973) produced results conflicting with those of Goldberg (1968). Miller and McReynolds conducted a study which examined the influence of source competency and receiver differences using persuasive messages. The persuasive message, presented by a source identified as a Ph.D. in nuclear physics, favored an expanded ABM missile system. The message was presented to two groups of both male and female subjects. However, one group received the message from an ostensibly male source and the other from a female source.

Results of the study failed to demonstrate any differences in the persuasiveness of the messages attributed to male or female sources. Yet, both males and females viewed the female source as less competent than the male source. Further, this tendency was more pronounced for females than for males.

Other additional studies suggest ambiguities as to the existence of sex bias which was so strongly supported by the Goldberg study and the various replications. In 1973, Ferber and Huber examined student bias

in relation to the sex of the instructor. The results suggested that male students were more likely to agree with statements made by male scholars, while female students were less affected by the gender of the author.

Hough and Allen (1975) found conflicting results in that their study indicated that female college students would rate females more highly under normal questionnaire circumstances. Yet, when they were led to believe that the experimenter had access to their private feelings, they were induced to rate males slightly higher.

Hensley and Waggoner (1979), prompted by Goldberg's research and by the large body of conflicting results regarding sex-based perceptions, conducted a study reconsidering the notion of female prejudice against other females. The study was designed to investigate whether, when both listener and speaker are unknown to one another, listeners of each sex do or do not tend to differ in their evaluations of speakers according to gender. The results were compared to earlier studies in which women being judged were hypothetical authors. Students in the study demonstrated no prejudice toward communicators of either gender, even when the communicators were personally unknown. The authors suggested that stereotypes played a lesser role in judging a source when "real" women presented the message. Perhaps the personal contact broke down stereotyped responses and the students used other information available to judge the source. In conclusion, the authors emphasized that Goldberg's sweeping conclusion that women in general are prejudiced against women is an overstatement and an oversimplification.

In light of the previous study, it might be argued that the medium of communication could affect perceived credibility. That is, a live presentation such as in the study by Hensley and Waggoner might produce different judgments than if the same material was presented through audiotape, videotape, or print. Savary (1978) conducted a study in an effort to discover whether perceptions of the credibility of a source are affected by the medium of communication, sex of the source, and sex of the receiver. The results indicated that the medium of communication or the sex of the source did not affect perceived credibility ratings of the source. That is, male sources were not ranked higher than female sources regardless of the medium of communication. However, the sex of the receiver did make a significant difference in relation to source credibility. Female receivers tended to rank all sources higher than did male receivers. In sum, one medium did not possess greater credibility than others, nor did males possess greater credibility than females. Yet, female respondents tended to give higher ratings overall than did male respondents.

Although her results were not significant, Anders (1976) noted a trend in her study similar to the findings of Savary. She found that female subjects alone tended to judge articles for which the author gender was unknown as more credible than either the male or female author versions. Male subjects did not show differences in judgments of article versions.

In sum, the research results regarding the influence of the gender of the receiver are mixed. Conclusive findings supporting

sex-based differences in receiver evaluations cannot be cited. The conflicting results of all the studies regarding sex biases might be explained by examining another variable which was hinted at in a few of the studies. That is, the situation or the actual message being projected may play an influential role in the credibility evaluation.

#### Message Content

Upon examining the literature cited previously, it becomes apparent that often no distinction exists between the message and the message source. Of course, in practice this is a difficult distinction to make. However, it may well be that the actual content of the message interacts with the gender and status of the author and the gender of the receiver. In other words, the message content may be a factor of concern when examining the credibility of an author particularly in regard to persuasive material. Bettinghaus (1968) suggested that the receiver is most likely to be affected by differences in the topic or content of the message. In addition, the organization, appeals used, arguments, and language used in the message may produce variations in response especially when a persuasive communication is used.

The literature concerning the various message variables focuses on the interactive persuasive effects of the variables and source credibility. The variables examined include message discrepancy, language used, message incongruity, and the use of evidence. Other areas of concern include the subject's involvement with the issue and the subject's initial opinion toward an issue.

A brief review of the literature pertaining to communication discrepancy and the joint effects of source credibility reveals that credibility is likely to have a systematic effect on persuasion. However, this seems to be true only when an appeal is highly discrepant from the receiver's initial opinion. High and low credibility sources seem to induce about the same amount of influence when the communication is less discrepant. Bochner and Insko (1966) found that increasing message discrepancy enhanced persuasion, yet a moderate level was most persuasive. An extremely high discrepancy resulted in a drop-off of the credibility effect (Koslin, Stoops, and Loh, 1967).

The language used in a message, particularly a persuasive message, has also been documented as affecting source credibility. Specifically, the effects of language intensity on source credibility evaluations have been studied. The intensity of the language used refers to the source's deviation from neutrality. For example, the use of the word "always" is more intense than the word "sometimes." In some instances the language used can become threatening or arouse fear. Evidence suggests that an increase in social or physical threat enhances persuasion when the source is highly credible. However, a less credible source is less likely to be effective in persuasion (Hewgill and Miller, 1965; Mehrley and McCroskey, 1970; Miller and Baseheart, 1969).

McEwen and Greenburg (1970) designed a study to determine the effects of high and low intensity messages on source credibility and evaluations of the message and topic. Using a moderate credibility source, they found significant differences only with the high intense

message. The source was perceived as more dynamic. No other differences were found. Thompson (1965) found similar results in examining the effect of intensity on credibility. When high intense language was used, significant increases in the trustworthiness, dynamism, and competence dimensions of credibility were apparent.

Lynn (1974) investigated the differences in receiver perceptions of two messages differing only in the degree of personalized emotional language used in association with high, moderate, and neutral credibility sources. The results indicated that when message quality is favorable or receiver perceptions are positive and source credibility is high, the use of the emotional language has more impact than the character of the source. In addition, highly credible sources tended to be perceived more favorably on the Perceptual Response Communication Inventory (measures communication attributes) with objective messages (low personalized and emotional language) than with subjective messages (high personalized and emotional language). The reverse tended to be true with moderately credible sources.

Another message variable examined in the literature concerns the presentation of evidence to gain support for an advocacy. Evidence refers to facts or opinions attested to by individuals other than the source. McCroskey (1969, 1970) found that the provision of evidence did not increase the persuasiveness of a highly credible source. However, McCroskey, Larson, and Knapp (1971) found that the interaction of credibility and evidence produced different results in a series of 12 studies. The results suggested that the inclusion of evidence has

little impact on credibility if the message source is initially highly credible. If the source is initially considered low credible, then the inclusion of evidence may significantly increase the source's credibility. This was true only if the receivers of the message were not completely familiar with the evidence presented.

In regard to subject familiarity to the content, several studies have been conducted concerning the relationship of credibility and subject involvement with an issue. Convincing evidence suggests that the failure to observe a credibility main effect may be due to the fact that subjects were highly involved with the issue (Bergin, 1962; Johnson and Steiner, 1968; McGarry and Hendrick, 1974). In two studies which manipulated the variable of involvement, it was found that a highly credible source was more persuasive when involvement was low than was the low credibility source. Yet, no systematic credibility effect was found when involvement was high. It was proposed that increased involvement reduced the influence of the highly credible source but not that of the low credibility source (Johnson and Scileppi, 1969; Rhine and Severance, 1970).

The results of studies regarding involvement overlap slightly with those concerning the initial opinion of the receiver. It seems reasonable to assume that subjects may have specific opinions concerning an issue because they have some involvement with the topic. McGinnies (1973) found that subjects with extreme opinions also exhibited more involvement with an issue than did those with neutral opinions. Several studies suggest that when subjects are initially

favorable toward an advocacy, a low credibility source will induce greater persuasion. However, if the initial opinions are negative, a highly credible source will be more influential (Brock and Saine, 1975; McGinnies, 1973; Sternthal, Phillips, and Dholakia, 1978).

Based on the previously cited empirical evidence, the impact of source credibility in specific situations becomes obvious. The content or topic of the issue does influence credibility ratings particularly in persuasive communication situations.

#### Summary

The role that each of the variables previously discussed (author status, author and receiver gender, and message topic) plays is ambiguous. Conclusive and unequivocal evidence supporting the influence of each on credibility ratings is not available. Yet, indubitably, their presence cannot be ignored since in some instances the influence is evident while in others, it is not.

## CHAPTER 3

### DESIGN OF THE STUDY

The purpose of this chapter is to first provide a description of the preliminary study which consisted of the (1) subjects; and (2) development and administration of the instruments. Second, the major study is described. The description includes the (1) development of the instruments; (2) subjects; (3) design and procedures; (4) collating of materials; (5) procedures for administering the instruments; (6) scoring of data; and (7) analysis of the data.

#### Preliminary Study

Prior to the formal collection of data, a preliminary study was conducted in order to obtain materials for the major study. The eventual major study was to involve undergraduate sociology students who would be asked to read materials of a persuasive and controversial nature. The first problem of the investigation, therefore, was to come up with a list of topics that would form the basis of the materials for the articles the students were to read. The investigator needed to ensure that the topics chosen for the major study were in fact of concern and relevant to the targeted group. Therefore, a preliminary study was designed and conducted. The ultimate purpose of the preliminary study was to obtain a list of four controversial topics which were considered most relevant to college students at the time of the study and to

obtain students' attitudes toward the topics. This information was used to write the four articles used in the major study.

### Subjects

Subjects for this study were chosen from freshman and sophomore introductory sociology classes at The University of Arizona, Tucson, Arizona. Two intact classes were used, providing a total of 46 participants. The classes were held on The University of Arizona campus and taught by a graduate sociology student. The data were collected during regular class meeting times on April 1st, 2nd, 8th, and 9th, 1980.

### Development and Administration of the Instruments

Three data-gathering instruments were designed and used in the preliminary study. They included a (1) questionnaire and (2) a follow-up ranking and rating scale. The procedures used for each of the instruments is described in the following sections.

The Questionnaire. The questionnaire was used in the preliminary study for the purpose of obtaining a list of controversial topics. In order to obtain the list, the researcher was introduced by the instructor as a student who was conducting a poll to find out what broad controversies were of concern to college students. (See Appendix A for a copy of the directions read to the students.) Students were asked to generate a list of controversial topics which were relevant and of concern to them. Approximately 15 minutes of their regular 50 minute class time was used.

The lists of topics from the questionnaire were collected and reviewed by the researcher. The purpose of the review was twofold. First, all topics which were temporary in nature were eliminated. That is, any controversial issues presenting the possibility of being solved by the time of the major study were discarded since the issue would no longer be controversial. Second, ten of the most frequently mentioned topics were chosen.

The topics obtained covered a wide range of areas. Every topic that was not considered temporary in nature was listed, and the number of times it was chosen and tabulated. From this tabulated list, the ten topics receiving the greatest number of votes were chosen. (See Appendix B for a complete list of the topics and the tabulation of votes.)

The Ranking Scale and Rating Scale. The same subjects who responded to the questionnaire completed the ranking and rating scales the following week during regular class meeting times. The ranking and rating scales were constructed using the ten topics chosen from the questionnaire.

The purpose of the ranking scale was to obtain a list of the four top ranked topics relevant to college students at the time of the study. Each student was given an alphabetical list of the ten topics chosen from the initial questionnaire and asked to rank order them in order of importance to them. The rankings of "1" to "10" were used with "1" being most important. (See Appendix C for a copy of the ranking scale.)

After completing the ranking scale, the students responded to the rating scale. The rating scale was used to determine the students' feelings about each of the ten topics. A Likert-like statement was generated by the researcher for each of the ten topics. Each statement presented a definite pro or con stance with regard to the corresponding controversial issue. Students were asked to rate their feelings about each statement by responding to two questions. (See Appendix D for a copy of the rating scale instrument.)

First, the students were asked to rate each statement as to whether they felt college students in general would be concerned about the issue. The results from this rating were surveyed simply to get an idea of how individuals thought the majority of college students felt about an issue. The results suggested that most students were neutral or undecided.

The second rating pertained to the students' personal feelings about an issue. The results from this rating were used to determine the stance (pro or con) for each of the four final topics or issues.

The results from both the ranking and rating scales were scored by the researcher. The ranking scale instrument required the students to rank order the topics using the numbers "1" through "10" with the ranking of "1" being the topic of most concern. The goal was to obtain a list of the four top ranked topics from the ten. In order to accomplish this, each topic was given a weighted score. The number of times each topic was chosen for a rank order was tabulated. This provided a raw score of how many students of the 46 total chose each rank for all

ten topics. This raw score was then multiplied by the rank order. For example, three subjects of the 46 chose the draft as their number one topic. Therefore, the rank order of "1" was multiplied by 3. Similarly, five subjects chose the draft as their second topic of concern. Thus, the rank order of "2" was multiplied by 5. This was done for each of the ten topics for rankings "1" through "10." These figures were then summed to obtain a weighted score. The lowest score indicated the number one topic. (See Appendix E for tabulated data.)

As a result the following is a list of the four top ranked topics chosen in order of importance:

1. Need for alternative energy sources
2. Inflation
3. Nuclear weapons
4. Gas and oil prices

The rating scale data were scored in order to determine the students' attitudes toward an issue. The instrument focused on two questions for each topic. These were: (1) is this an issue or concern that college students in general might be involved with?; and (2) how does the individual feel personally about each of the statements? The students were to rate the first question for each of the topics before rating their own feelings. Subjects rated their feelings on a scale of "1" through "5." A rating of "1" referred to "of no concern" for the first question and "strongly disagree" for the second question. A rating of "5" referred to "of great concern" or "strongly agree" respectively.

Two average ratings were calculated for each of the ten statements. The first pertained to question number one and the second to question number two. In order to obtain an average rating for each topic, all responses were recorded by topic and rating received. That is, the number of times each topic received a rating of 1, 2, 3, 4, or 5 was recorded. Second, this total number for each rating was multiplied by that rating and then summed. For example, seven of the 46 people in the sample strongly disagreed (rating of 1) with the statement concerning gas and oil prices. Therefore, the weighted score was  $7 \times 1 = 7$ . This was done for each of the ratings. These multiplied totals were summed and divided by 46 (the sample total) in order to obtain the average rating for each statement. (See Appendix F for tabulated data.)

The results (from column one) concerning college students' general feelings as a group was surveyed simply to get an idea of how individuals think the majority of college students felt about an issue. The results indicated a consistent tendency for students to believe moderate concern existed for each of the issues. However, on the average, the students were undecided.

The results (from column two) concerning the personal feelings of the individuals were used to determine the stance (pro or con) taken on each issue represented in the statements. An examination of the four top ranked topics from the ranking scale and their corresponding Likert-like statements revealed that the majority of students agreed with each of the four statements in the rating scale. In other words, the students

avored the position represented by the statement for each of the issues. This information provided the stimulus for writing the four controversial or persuasive articles for the major study.

### Major Study

#### Subjects

Subjects for the major study were chosen from freshman and sophomore introductory sociology classes at The University of Arizona, Tucson, Arizona. This sample population was used for the following reasons. First, it was assumed that the subjects were reasonably competent readers and should have no trouble reading the study material. Second, the subjects were in courses of a very general nature. The courses were all introductory freshman and sophomore level classes which were not highly specialized or extremely narrow in content. It was assumed, therefore, that these non-specialized students were more representative of the population as a whole than upper level college students would be. Third, this was a modification of the Anders study. Therefore, it was important to have subjects of a similar type in both age and educational level or experience.

A total of six intact classes was used. (Each class met for 50 minutes.) Class size ranged from 30 to 60 students. Classes were held on The University of Arizona campus and taught by graduate sociology students. The data were collected during the regular class meeting times on April 29th and 30th, 1980.

The sample included 223 students. A total of 126 females and 97 males participated in the study. Following university procedures, the instructor permissions were obtained and each student received a consent form which was to be read, signed, and returned to the investigator prior to participation in the study. Of the 246 consent forms distributed, 234 forms were signed and returned. However, of the 234 students signing the consent form, 11 did not complete the information requested in the study.

#### Development of the Instruments

Construction of the Articles. Once four topics were chosen from the instruments in the preliminary study, the four articles for the major study were written. In order to construct the articles, the following four considerations were dealt with and will be explained in detail below: (1) the topics of the articles; (2) the format of the articles; (3) the occupational status of the author; and (4) the gender of the author.

1. Topics of the Articles--one article was written by the researcher for each of the four topics chosen. The actual content or topic was determined from results in the preliminary study. Because only one article was written for each controversial topic, a stance on each issue was established. The stance chosen was determined by the results of the rating scale. The position chosen for each of the four topics was in disagreement with the Likert-like statement in the rating scale. Since the

majority of the students in the preliminary study agreed with the Likert-like statement, it was assumed that the students in the major study would have similar feelings. Therefore, in order to stimulate and maintain the notion of controversiality, the articles were written actively opposing the viewpoint believed to be held by the students.

2. Format of the Articles--the articles were written using a letter-to-the-editor format similar to the format used in the Tucson newspapers. The articles were of a persuasive nature in that they presented a definite opinion regarding the topic or issue. Each article was written by the researcher according to strict guidelines. These guidelines were the following:

- (A) That each article was to be approximately 300 to 350 words in length. This length was used because it seemed representative of the length of actual well developed and rational letters to the editor printed in the Tucson newspapers.

- (B) That each article was to have a readability no easier than a seventh-grade reading level and no more difficult than a ninth-grade reading level as determined by the Fry readability formula. This was done to eliminate any problems related to the actual reading of the materials.

- (C) That each article was to present a definite stance in opposition to the views held by the majority of students concerning each issue.

(D) That each article was to be organized very similarly in style and format. This was done to provide a fairly consistent organization for each of the articles.

By following these guidelines, a total of four topically-related articles were written each with very similar formats. In addition, each of the four final articles was read by a panel of professors and doctoral students in order to assure the rationality and equality of the articles. (See Appendix G for copies of the four articles.)

Occupational Status of the Author. For each of the articles, the occupational status of the author was varied in order to determine the effect of status on perceptions of an author as credible or not. Each of the four articles was attributed to one high status occupation and to one low status occupation.

A doctor was used to represent the high status occupation and a store clerk was used to represent the low status occupation. These were chosen from national surveys rank ordering occupational prestige or status (Medvene and Collins, 1974; Reiss, 1961). Two articles were attributed to a doctor and two articles were attributed to a store clerk in each set of the four articles given to the students.

Gender of the Author. In addition to varying the occupational status of the author, the gender of the author was varied. Two articles were attributed to a doctor, the high status occupation chosen. First, one article was attributed to a doctor with an obviously male name and

second, one article to a doctor with an obviously female name. Similarly, two articles were attributed to the low status occupation of a store clerk. Therefore, one article was attributed to a store clerk with an obviously male name and one to a store clerk with an obviously female name. The four names used were: David Foster, James Barrett, Susan Weber, and Alice Coffman.

In sum, there were four articles with a total of 16 versions. That is, each article was attributed to a female doctor, a male doctor, a female store clerk, and a male store clerk.

Modified Ranking and Rating Scales. The four articles were used as one part of a three-part packet which was given to the subjects in the major study. The first part of the packet included a modified ranking and rating scale instrument which was used in order to confirm the students' feelings toward the topics. These scales were a replication of the ranking and rating scales used in the preliminary study. However, only the four final topics chosen and their corresponding Likert-like statements were used. (See Appendix H for a copy of the scales given to the students.) These scales were completed and turned in to the researcher before the subjects read the articles so no answers would be changed. The articles made up the second part of the packet and were attached to response scales which made up the third part of the packet.

Response Scales. In order to measure the response of the subjects to the various versions of the four articles, a response scale accompanied each article. Six questions and six corresponding modified semantic differential scales were used. The questions were designed to tap those factors which the reader might use to determine the author's credibility. The six questions and directions used were the same as those used in the Anders study. In addition, the order of the questions was rotated so as to avoid a possible response set. Subjects were to mark the box to indicate their beliefs or feelings with regard to the respective adjectives. A seven-point scale was used which allowed for more variance than did the five-point scale used in the Anders study. (See Appendix I for a copy of the response scale and directions used.)

#### Design and Procedures of the Major Study

Because intact groups were used, the packets were randomly assigned to the subjects. In order to do this, a counterbalanced design was used (see Table 1).

The content of the packets was determined from this design and included:

Packet A--article 1 written by a male doctor; article 2 written by a female doctor; article 3 written by a male store clerk; and article 4 written by a female store clerk.

Packet B--article 1 written by a female doctor; article 2 written by a male doctor; article 3 written by a female store clerk; and article 4 written by a male store clerk.

Table 1. Design of major study

Article Topics	Male Doctor	Female Doctor	Male Clerk	Female Clerk
Gas and oil	A	B	C	D
Inflation	B	A	D	C
Energy	C	D	A	B
Nuclear	D	C	B	A

Packet C--article 1 written by a male store clerk; article 2

written by a female store clerk; article 3 written by a male doctor; and article 4 written by a female doctor.

Packet D--article 1 written by a female store clerk; article 2

written by a male store clerk; article 3 written by a female doctor; and article 4 written by a male doctor.

Two identical piles of packets were assembled. One pile was designated for females and the other for male readers. Each pile contained the randomly arranged packets A, B, C, and D. The purpose of the arrangement was to provide an approximately equal distribution of all four packets (A, B, C, and D) to both male and female subjects. In addition, the responses of the female subjects could be compared to the responses of the male subjects. Once the packets were assembled, the materials were collated and administered to the students.

### Administration of the Instruments

The 16 article versions and the response scales were organized and placed into packets. Each student in the study received a packet containing four articles and a response scale for each article. In addition, they received cover sheets consisting of the modified ranking and rating scales, a consent form which briefly described the study, and directions for completing the packet. (See Appendix J for packet directions.) These sheets were attached to the outside of the packet and completed before opening the packet.

A brief introduction was made by each instructor prior to the collection of the data. The experimenter was introduced and the students were encouraged to participate although their participation was voluntary. The experimenter then explained the general background and purpose of the study and administered the packets.

Upon completion of the entire packet, the students were to return it to the researcher. They were then free to leave class or remain until everyone had completed the packet, at which time a discussion was generated by the researcher. In the discussion, the students were asked what they thought the study was about and their reactions to the articles. The study was then briefly explained.

Once all the packets were collected, the researcher scored each ranking and rating scale and response scale. The results were then analyzed.

## Scoring of Data

All data were scored by the examiner at the conclusion of the collection. Three separate scores were tabulated for each subject. A score was obtained from the modified ranking scale, the modified rating scale, and the response scales for each article set.

Scores for the ranking scales were tabulated for each topic. Each of the four topics was given a weighted score. That is, the number of times each topic was chosen for a rank order was tabulated. This provided a raw score of how many students of the total sample of 223 chose the rank of 1, 2, 3, or 4 for each of the four topics. This raw score was then multiplied by the corresponding rank order. These figures were then summed to obtain a weighted score. The lowest score indicated the number one ranked topic while the highest score denoted the fourth ranked topic.

One rating score was obtained for each of the four topics. A summed score only for the question pertaining to the subjects' personal feelings toward the topic was calculated. First, the number of times each topic received a rating of 1, 2, 3, 4, or 5 was recorded. Each tabulated total was then multiplied by the corresponding rating and then summed for each statement. These summed totals were next divided by 223, the sample total, in order to obtain the average rating for each statement.

Once the ranking and rating scores were tabulated for the eight treatment groups (for the four topics and reader gender), the resulting scores were then combined into two groups by reader gender only. Thus, differences between male and female responses could be examined.

Summed scores were used for the response scales. The rating for each question was tabulated by subject and article. The six rating scores were then summed providing a single credibility rating score for each corresponding article and author. Thus, four summed rating scores resulted per student.

#### Analysis of the Data

Reliability coefficients were computed for the response scale instrument using the Cronbach alpha procedure (Anastasi, 1976). Cronbach alpha coefficients were computed for each of the four articles.

In order to analyze the data relative to the five questions posed in this study, a series of three-way analysis of variance tests was computed for each of the four articles (Glass and Stanley, 1970). For each article, both main effects and interaction effects were analyzed for significance.

The information gathered from the ranking scale was tabulated, but no statistical tests were conducted. Rating scale data organized in terms of reader gender were analyzed for statistical differences using the Chi Square procedure (Glass and Stanley, 1970). For this analysis and all previously described analyses, an alpha of .05 was used.

## CHAPTER 4

### RESULTS AND DISCUSSION

The findings of the study are presented under the following headings: (1) reliability and validity of the response scale; (2) findings for the four persuasive articles; (3) descriptive data relative to the ranking and rating scales; and (4) discussion of findings.

#### Reliability and Validity of Response Scale

In order to answer the five questions of the study, four controversial articles were written by the researcher. Each article was attributed to a male author, a female author, a clerk, and a doctor, producing 16 article versions. A credibility response scale accompanied each article along with a ranking and rating scale. This packet of materials was administered to 223 subjects.

Reliability of the six-item credibility response instrument was computed using the Cronbach alpha procedure (Anastasi, 1976), a measure of internal consistency. Table 2 contains the reliability coefficients by article based on the six-item scale.

The reliability coefficients reported in Table 2 appear to be sufficiently high to suggest that the response scale data would be consistent. However, even before the data were collected for this study, there was some concern that one of the items on the scale originally

Table 2. Reliability coefficients for six-item response scale

Article Topic	Alpha
Gas and oil	.891
Inflation	.867
Energy	.875
Nuclear	.878

developed by Anders for use with informational material might not be appropriate for use in this study. The third question asked the reader to indicate how biased the author's letter was. Due to the nature of the articles, there was some question as to whether this item was appropriate in relation to the other questions. The material was controversial and decidedly biased. Thus, a reader rating an author as biased might not be questioning the author's credibility. Indeed, at the time the data were collected, some students noticed that all the articles were biased and questioned why this was so and why they were asked such an obvious question.

Because of this concern for item number three, further statistical item analyses were performed in addition to the reliability coefficients figured for the total six-item instrument. Specifically, the researcher wished to examine item number three in relation to the other five items on the response scale. Therefore, intercorrelations

among all six items were computed for each of the four articles in order to determine whether item three was measuring a similar concept as the other five items.

Tables 3, 4, 5, and 6 contain the item correlations for the four articles used in the study. As can be seen from these data, across the four articles, the lowest item intercorrelations are fairly consistently between item three and the other five items. There were for particular articles other low item intercorrelations, but the one pattern true across all articles was that item three did not relate well to the other five items.

It appears that the subjects in this study either misinterpreted item three or they were simply responding at random. It is possible that they did not understand what was called for in the item and simply did not know what to do.

As a result of the analysis of the intercorrelation findings, the reliability coefficients were computed for the instrument as a whole again but with item three omitted. Table 7 presents the new alphas with item three omitted for the four articles.

In comparing Table 2 and Table 7, a definite increase in the reliability coefficients is obtained by omitting item three. Therefore, it was decided that all further analyses of data would be based on the five-item response scale. In other words, responses from item three were ignored.

Table 3. Correlation matrix for gas and oil article

Question Item	1	2	3	4	5	6
1. How rational and logical was the author's letter?	1.000					
2. How correct was the author's letter?	.743	1.000				
3. How biased was the author's letter?	.432	.453	1.000			
4. How trustworthy do you believe the author is?	.636	.605	.393	1.000		
5. How intelligent do you believe the author is?	.662	.637	.333	.623	1.000	
6. How well-informed do you believe the author is?	.770	.794	.421	.618	.691	1.000

Table 4. Correlation matrix for inflation article

Question Item	1	2	3	4	5	6
1. How rational and logical was the author's letter?	1.000					
2. How correct was the author's letter?	.719	1.000				
3. How biased was the author's letter?	.428	.516	1.000			
4. How trustworthy do you believe the author is?	.511	.520	.352	1.000		
5. How intelligent do you believe the author is?	.478	.489	.339	.559	1.000	
6. How well-informed do you believe the author is?	.748	.697	.409	.542	.548	1.000

Table 5. Correlation matrix for energy article

Question Item	1	2	3	4	5	6
1. How rational and logical was the author's letter?	1.000					
2. How correct was the author's letter?	.692	1.000				
3. How biased was the author's letter?	.454	.427	1.000			
4. How trustworthy do you believe the author is?	.527	.451	.349	1.000		
5. How intelligent do you believe the author is?	.594	.620	.331	.609	1.000	
6. How well-informed do you believe the author is?	.665	.723	.424	.516	.723	1.000

Table 6. Correlation matrix for nuclear article

Question Item	1	2	3	4	5	6
1. How rational and logical was the author's letter?	1.000					
2. How correct was the author's letter?	.740	1.000				
3. How biased was the author's letter?	.345	.395	1.000			
4. How trustworthy do you believe the author is?	.649	.555	.349	1.000		
5. How intelligent do you believe the author is?	.666	.543	.213	.698	1.000	
6. How well-informed do you believe the author is?	.753	.737	.337	.650	.719	1.000

Table 7. Reliability coefficients for five-item response scale

Article Topic	Alpha
Gas and oil	.913
Inflation	.875
Energy	.887
Nuclear	.910

Findings for the Four  
Persuasive Articles

In the sections that follow, the basic data gathered to help answer the five questions posed in this study are presented. The data are presented separately for each article.

Gas and Oil Article

Table 8 contains the raw score means for the eight treatment groups for the gas and oil article. The highest possible score on the five-item response scale is 35, which would indicate that the rater considered the author as very credible. The lowest score possible would be 5, which would indicate a very low credibility rating.

Table 8. Credibility response scale raw score means for gas and oil article

Reader	Author			
	Male		Female	
	Doctor	Clerk	Doctor	Clerk
Male	24.44	20.65	25.16	20.07
	n=25	n=23	n=25	n=24
Female	25.63	25.87	29.13	25.72
	n=32	n=31	n=31	n=32

The data in Table 8 were subjected to a three-way analysis of variance procedure. The resulting statistical analysis is presented in Table 9.

As can be seen from the data in Table 9, significant main effects for the reader gender and author occupational status factors were found. In other words, in regard to the gas and oil article, female respondents rated the author as significantly more credible than did the male respondents. Additionally, doctors were rated as significantly more credible than were authors of the clerk status. All other differences were non-significant, which includes the author gender factor. Female authors were rated as slightly more credible than male authors, but the difference was not statistically significant.

Table 9. Analysis of variance for gas and oil article

Main Effects	SS	df	MS	F	Significance of F*
Reader Gender	854.86	1	854.86	18.23	S
Author Gender	56.83	1	56.83	1.21	NS
Author Occupa- tional Status	438.08	1	438.08	9.34	S
Two-Way Interactions					
Reader Gender x Author Gender	34.20	1	34.20	.73	NS
Reader Gender x Author Status	107.41	1	107.41	2.29	NS
Author Gender x Author Status	93.49	1	93.49	1.99	NS
Three-Way Interactions					
Reader Gender x Author Gender x Author Status	20.56	1	20.56	.44	NS
Residual	10081.01	215	46.89		
Total	11662.49	222	52.53		

\*p  $\leq$  .05

## Inflation Article

Table 10 contains the raw score means for the eight treatment groups pertaining to the inflation article. Again, the total possible score on the scale is 35, indicating a high estimate of credibility.

Table 10. Credibility response scale raw score means for inflation article

Reader	Author			
	Male Doctor	Clerk	Female Doctor	Clerk
Male	23.32 n=25	20.25 n=24	22.44 n=25	21.65 n=23
Female	23.26 n=31	23.47 n=32	23.34 n=32	22.00 n=31

As for the previous article, these data were subjected to a three-way analysis of variance procedure. The resulting statistical findings are presented in Table 11.

As can be seen from the results in Table 11, no statistically significant differences were found for the inflation article. In other words, although female readers rated the authors as more credible than did male readers and doctors were rated as more credible than clerks, the differences were not statistically significant. With regard to

Table 11. Analysis of variance for inflation article

Main Effects	SS	df	MS	F	Significance of F*
Reader Gender	66.92	1	66.92	1.53	NS
Author Gender	4.83	1	4.83	.111	NS
Author Occupational Status	75.37	1	75.37	1.73	NS
Two-Way Interactions					
Reader Gender x Author Gender	11.56	1	11.56	.27	NS
Reader Gender x Author Status	25.86	1	25.86	.59	NS
Author Gender x Author Status	.18	1	.18	.004	NS
Three Way Interactions					
Reader Gender x Author Gender x Author Status	50.38	1	50.38	1.16	NS
Residual	9378.44	215	43.62		
Total	9611.16	222	43.29		

\*p  $\leq$  .05

author gender, a very small absolute difference was noted, with male authors being rated as slightly more credible than female authors, but this difference was not statistically significant.

#### Energy Article

Table 12 contains the raw score means for the eight treatment groups for the energy article. As with the previous tables, the number of subjects in each group is indicated.

Table 12. Credibility response scale raw score means for energy article

Reader	Author			
	Male		Female	
	Doctor	Clerk	Doctor	Clerk
Male	24.43	20.40	24.04	20.08
	n=23	n=25	n=24	n=25
Female	21.68	22.34	23.25	20.10
	n=31	n=32	n=32	n=31

Table 13 presents the three-way analysis of variance results for the data represented in Table 12. The data in Table 13 indicate one significant main effect. The occupational status of the author for the energy article was a significant factor. In other words, the author attributed to the status of a doctor was deemed significantly

Table 13. Analysis of variance for energy article

Main Effects	SS	df	MS	F	Significance of F*
Reader Gender	7.01	1	7.01	.15	NS
Author Gender	6.78	1	6.78	.15	NS
Author Occupa- tional Status	331.98	1	331.98	7.28	S
Two-Way Interactions					
Reader Gender x Author Gender	.003	1	.003	.000	NS
Reader Gender x Author Status	102.99	1	102.99	2.26	NS
Author Gender x Author Status	63.03	1	63.03	1.38	NS
Three-Way Interactions					
Reader Gender x Author Gender x Author Status	51.87	1	51.87	1.14	NS
Residual	9803.15	215	45.60		
Total	10364.10	222	46.69		

\*p  $\leq$  .05

more credible than the authors of the same article with a clerk status, as had been true with the gas and oil article.

Male readers rated the authors as more credible than female readers, which was contrary to the trend observed with the two previously discussed articles, but the actual difference was small. Male authors were considered slightly more credible than female authors, but again the actual difference was small and not statistically significant.

#### Nuclear Article

As with the previous three articles, the next table, Table 14, contains the raw score means.

Table 14. Credibility response scale raw score means for nuclear article

Reader	Author			
	Male		Female	
	Doctor	Clerk	Doctor	Clerk
Male	21.63	20.96	23.00	20.72
	n=24	n=25	n=23	n=25
Female	25.59	23.97	24.00	21.75
	n=32	n=31	n=31	n=32

Table 15 contains the resulting statistical analysis of the data represented in Table 14. Only one significant main effect is presented in Table 15. Reader gender was found to be a significant factor for the nuclear article, as it had been for the gas and oil article. Again, female respondents rated the authors as significantly more credible than did the male respondents.

All other differences were not statistically significant. Doctors were rated as more credible than clerks, but the difference was not large enough to be statistically significant. Male authors were rated as more credible than female authors, but the difference was not significantly different.

#### Descriptive Data Relative to Ranking and Rating Scales

Additional descriptive information was available from ranking and rating tasks performed by the subjects in this study. The ranking and rating tasks were completed before the subjects read the articles.

Table 16 contains the summed ranking data for male and female subjects in the study. The scores in Table 16 were derived by multiplying the number of subjects who chose each rank by the corresponding rank order. These scores were then summed to obtain the weighted scores contained in Table 16. In other words, a low score indicates more important ranking.

As can be seen in the results of Table 16, male and female subjects ranked the importance of these four topics similarly. The topics were ranked in the following order from most to least important: (1) inflation, (2) energy, (3) gas and oil, and (4) nuclear.

Table 15. Analysis of variance for nuclear article

Main Effects	SS	df	MS	F	Significance of F*
Reader Gender	218.10	1	218.10	5.37	S
Author Gender	39.47	1	39.47	.76	NS
Author Occupa- tional Status	167.71	1	167.71	3.23	NS
Two-Way Interactions					
Reader Gender x Author Gender	83.18	1	83.18	1.60	NS
Reader Gender x Author Status	3.01	1	3.01	.06	NS
Author Gender x Author Status	15.50	1	15.50	.30	NS
Three-Way Interactions					
Reader Gender x Author Gender x Author Status	3.36	1	3.36	.07	NS
Residual	11176.31	215	51.98		
Total	11774.86	222			

\*p  $\leq$  .05

Table 16. Summed ranking scores

Article Topic	Males	Females
Gas and oil	254	339
Inflation	176	222
Energy	216	291
Nuclear	321	408

In addition to the ranking information requested, each subject was also asked to respond to a five-point rating scale which probed personal feelings concerning each of the topics. The basic raw data for the rating items are contained in Appendix K.

Table 17 contains the mean summed rating scale data for the four articles. In interpreting the mean scores, a low score (score less than 3) indicates that the subject was in disagreement with the Likert-like statement in the rating scale which would mean that the subject would be in agreement with the stance presented in the article to be read later.

The basic rating data were subjected to statistical analysis through the Chi Square procedure. Although it may not be apparent from an inspection of Table 17, there were statistically significant differences between males and females in their opinions on two of the four topics. The two topics were inflation and nuclear weapons. That is,

Table 17. Mean summed rating scores for the four articles

Article Topic	Males	Females
Gas and oil	2.62	2.33
Inflation	3.10	3.31
Energy	4.15	3.88
Nuclear	3.18	2.75

male respondents felt stronger than females regarding the statement on nuclear weapons. Females felt stronger than males regarding the statement on inflation.

#### Discussion of Findings

This section will be organized by the statement of the problem. Each question will be examined with the consequent findings.

The first question asked: Does the gender of the author of persuasive material affect the reader's general evaluation of the credibility of the author? The answer to this question, according to the results of this study, is no. No significant differences for any of the four articles were found regarding the gender of the author. Therefore, it must be concluded that the gender of the author does not affect a reader's general evaluation of an author as credible or not.

This finding conflicts with results found by Goldberg (1968), Mischel (1974), and Noel and Allen (1976). These studies all concluded

that women are prejudiced against women and that in general male authors are rated as more credible than female authors.

However, a substantial number of studies present findings which are consistent with the results of this study. Hensley and Waggoner (1979) reevaluated the Goldberg study and found that a bias did not exist when the communicator was an actual or known person. Studies by Savary (1978) and Miller and McReynolds (1973) also failed to confirm the existence of sex bias.

Although Anders (1976) did not obtain significant results regarding author gender, she did note trends for the total pooled group of subjects which were consistent with the trends noted in this study. That is, male authors were rated as slightly more credible than female authors. This trend occurred for all of the articles except the gas and oil article. Female authors were rated as more credible for the gas and oil article. These are only trends. They were far from significant. Therefore, it must be concluded that the gender of the author does not affect the reader's credibility evaluations.

The second question of the study asked: Is the reader's evaluation differentially affected when the author of persuasive material is of high or low occupational status? According to the results of this study, for two of the articles the occupational status of the author did make a difference. Therefore, the answer to this question is yes for two of the articles. Doctors were rated as significantly more credible than clerks when they were associated with the gas and oil article and the energy article. A definite trend also exists for doctors to be

rated as more credible than clerks when associated with the inflation and nuclear articles.

Anders (1976) found no significant author status effects. She suggested that her use of informational articles might help explain her results. Logically, a doctor should not be considered to have more expertise than a clerk concerning any of the topics in this study. Therefore, the nature of the material (persuasive) and not just the topics used may affect reader reactions. In any case, the influence of the occupational status of the author cannot be ignored.

The third question asked: Does the reader's own gender affect his or her evaluation of an author as credible or not? Again, the results are mixed. For two of the four articles, females did rate all authors as significantly more credible than male respondents rated the same authors. Significant reader gender effect occurs for both the nuclear article and the gas and oil article. A trend toward this effect also appears for the inflation article. However, for the energy article, a tendency for male readers to rate all authors as more credible exists.

A great deal of contradiction exists in the literature regarding the presence of differential evaluations of males and females. The conflicting results of many of the studies suggest that a state of change is emerging. The more current research supports a trend away from sex bias (Savary, 1978; Hensley and Waggoner, 1979). Another explanation sought dealt with the influence of attitudes toward an issue. It was thought that the initial ratings or opinions toward an issue might

provide a more realistic explanation for differences in credibility ratings. However, this assumption was not borne out in the results of the study. Female respondents did indeed agree with the substance of the gas and oil and the nuclear article, suggesting that they would be more inclined to rate the authors as more credible. Yet, male respondents also agreed with the substance of the gas and oil article. They did not agree with the nuclear article, although the tendency was toward agreement. In sum, no conclusions can be drawn as to why females rate some authors as more credible than male respondents rate the same authors. It appears to be the topic, but other factors must also be operating.

The fourth question asked: What interactions exist among the author's gender, the reader's gender, and the occupational status of the author? No significant interactions were noted for any of the four articles. Thus, it appears that these variables do not interact with each other in any significant way.

The fifth question asked: Does the nature of the topic or controversial issue have any effect on the relationships among reader evaluation of author credibility, gender of author, occupational status of the author, and reader gender? Perhaps the answer to this question is yes. Reader gender and author occupational status did make a difference for two of the articles; therefore, it appears that the topic may have some importance in determining author credibility.

One explanation for the conflicting results might be obtained by examining the language used in each article. It has been suggested

that highly intense language or even threatening language may be a major influence on readers' reactions. In addition, the use of emotional language may have more impact than the perceived character of the source (Hewgill and Miller, 1965; Lynn, 1974; McEwen and Greenburg, 1970; Mehrley and McCroskey, 1970). Upon reexamining the language and content of the four articles, this appears to be a viable explanation for the results. For example, the language used in the inflation article (no significant results found) is not threatening and not intense and is, therefore, perhaps less likely to be an influence on credibility ratings. However, in comparison, the language used in the gas and oil article and the nuclear article could be considered intense and even threatening or fear arousing. Therefore, it may be that the intensity of the language used in these two articles prompted the significant differences with regard to reader gender and author occupational status.

This study used topics presumed to be relevant to students which perhaps implies familiarity with the issue. Therefore, the credibility ratings may have been influenced by this causing the mixed results. A few studies promote the notion that a failure to observe a credibility main effect may be due to the subjects' familiarity or high involvement with an issue. It may be that increased involvement with an issue reduces the influence of a highly credible source but not the influence of the low credibility source (Bergin, 1962; Johnson and Steiner, 1968; McGarry and Hendrick, 1974).

## CHAPTER 5

### CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

In this chapter will be presented a brief overview of the problem, related research, procedures used, and the findings, conclusions, implications, and recommendations for research that appear to follow from the findings of this study.

#### Restatement of the Problem

The purpose of this study was to determine the relationships among three factors in regard to the credibility of authors of persuasive material. The three factors included: occupational status of an author, the gender of an author, and the gender of the reader. Previous studies concerning author credibility and particularly these variables had reported conflicting results. More specifically, the five questions explored in this study were:

1. Does the gender of the author of persuasive material affect the reader's general evaluation of the credibility of the author?
2. Is the reader's evaluation differentially affected when the author of persuasive material is of high or low occupational status?
3. Does the reader's own gender affect his or her evaluation of an author as credible or not?

4. What interactions exist among the author's gender, the reader's gender, and the occupational status of the author?
5. Does the nature of the topic or controversial issue have any effect on the relationships among reader evaluation of author credibility, gender of author, occupational status of the author, and reader gender?

#### Related Research

Previous studies designed to investigate author credibility have considered a wide variety of variables. One set of studies has established the notion that occupations are a reflection of social status (Counts, 1925; Deeg and Paterson, 1947; Reiss, 1961). Specifically, subjects tend to perceive persons with a high status occupation, such as a doctor, as being of a high socioeconomic status, regardless of the actual income earned (Inkeles and Rossi, 1956). The reverse is also true. An occupation perceived to be of a lower status, such as a clerk, is also perceived to be of a low socioeconomic status (Inkeles and Rossi, 1956). In addition, occupations were found to reflect consistently the perceived status (Medvene and Collins, 1974). As a result of the findings of these studies, the occupational status of the author was isolated as one of the independent variables in this study, since it appeared to be a consistent indication of the subjects' perceptions of the social status of an author.

A second set of studies examined the influence of gender of the author on subjects' evaluations of author credibility. Again, the early studies supported the notion that the gender of the author does

affect a subject's evaluation in that male authors are judged as more credible than female authors (Goldberg, 1968; Mischel, 1974). Overall, the more recent research presents conflicting results. Some studies have still found significant sex biases (Miller and McReynolds, 1973; Noel and Allen, 1976), while others have not confirmed the belief that the gender of the source affects the perceived credibility of the source (Hensley and Waggoner, 1979; Savary, 1978).

A third set of studies, including the research conducted by Phillip Goldberg (1968) and Harriet Mischel (1974), has examined the influence of the gender of the reader. Essentially, this early research suggested that both men and women judged male authors as more credible. The results of more recent research have suggested a trend away from such bias (Hensley and Waggoner, 1979). However, results are greatly mixed and no conclusive statements can really be made regarding the influence of the gender of the reader.

The fourth and final set of studies reviewed examined the influence of the message content. In addition to the influence of the other variables, Bettinghaus (1968) suggested that the receiver is also likely to be influenced by the issue or topic. Specifically, the language used in a message (Hewgill and Miller, 1965; Lynn, 1974), the presence of evidence or support for a position (McCroskey, 1969, 1970), and the subjects' initial familiarity (Bergin, 1962; Johnson and Steiner, 1968) and opinions (Koslin et al., 1967) concerning an issue all can affect the subjects' credibility evaluation of an author of persuasive material.

The overall purpose of the present study, then, was to investigate experimentally variables which may affect a reader's evaluation of an author as credible or non-credible. In addition, the study investigated the possibility of interactions among the variables.

#### Design and Procedures

The subjects in this study were drawn from freshman and sophomore introductory sociology classes at The University of Arizona, Tucson, Arizona. Intact classes were used, providing a total of 46 participants in the preliminary study and 223 students in the major study.

The first procedure was to conduct a preliminary study. The preliminary study was designed in order to obtain materials for the major study. Specifically, the preliminary study provided a list of four controversial topics which were considered to be relevant to college students at the time of the study. In order to accomplish this, subjects were asked to complete a questionnaire, a ranking scale, and a rating scale. The results from these instruments provided a list of the four most relevant topics and the students' attitude toward each controversial topic.

Once four topics were chosen from the instruments in the preliminary study, four articles for the major study were written by the researcher. Each of the four articles was written presenting a point of view opposite to the one expressed by the subjects' stance on an issue in the preliminary study. Each article was attributed to a female author, a male author, a doctor, and a clerk, comprising a total

of 16 article versions. Packets were then assembled to include four article versions with corresponding credibility response scales, a rating and ranking scale, a consent form, and packet directions.

Procedures involved in data collection consisted of randomly assigning by sex and introducing the packet and having subjects complete the entire set of activities. First, the students were asked to read and sign the consent form and then to complete the modified rating and ranking scale. These forms were returned to the researcher prior to the students' reading of the articles and completion of the response scales. Students were allowed the full 50 minute class period time to complete the packet. An informal discussion regarding the purpose of the study was conducted by the researcher following the collection of all the packets for those students who wished to participate.

All data were scored by the examiner at the conclusion of the collection. Various statistical analyses were conducted to test the main effects of reader gender, author gender, and author occupational status. Ranking and rating data were analyzed for descriptive purposes.

#### Findings of the Study

In this section are reported the results of the data analyses regarding author credibility evaluations pertaining to persuasive material. The statistical analyses yielded the following findings:

1. No significant differences were found regarding the influence of the gender of the author for any of the four articles. Male authors were not consistently rated as more credible than female authors overall.

2. Significant differences were found regarding author occupational status for two of the articles. Doctors were rated as more credible than clerks with respect to the energy and gas and oil articles. No significant differences regarding author occupational status were found in response to the inflation article and the nuclear article, although the trend was toward doctors being considered more credible.
3. Significant differences were found regarding the effect of the reader's own gender on evaluations of author credibility for two of the four articles. Female respondents rated the authors of the nuclear article as more credible than male respondents reading the same material. Female respondents also rated the authors of the gas and oil article as more credible than did the male respondents. No significant differences regarding reader gender were found in response to the inflation article or the energy article.
4. No significant interactions were found among reader gender, author gender, and author occupational status.

### Conclusions

The following conclusions, based on the statistical findings, are limited to populations and instruments similar to those used in this study:

1. The occupational status of an author of persuasive material does appear to affect the credibility ascribed to that author by college students.

2. The gender of an author of persuasive material does not appear to affect the credibility ascribed to that author by college students.
3. For certain topics at least, college female readers consider authors of persuasive material as more credible than do college male readers, regardless of the status or gender of the authors of persuasive material.

#### Implications

The conclusions of this study suggested the following implications:

1. Critical reading exercises for college students of the type included in this study should focus on the influence of author status on a reader or receiver. Readers of persuasive material need to become aware that occupational status may affect their perceptions of author credibility and that this influence will vary according to the situation.
2. Assumptions about males possessing greater credibility than females need to be reevaluated. The attitudes toward stereotypes or images of women being viewed as inferior and incompetent appear to be changing and disappearing in some situations. In any case, the influence of author gender on credibility evaluations need not be stressed for college students in critical reading exercises, especially in relation to persuasive material.

3. The acquisition of knowledge concerning persuasive techniques should be encouraged. Readers or receivers should be made aware of the subtle influences, such as author status, which may affect credibility judgments and perhaps even decision-making processes concerning the critical evaluations of the source and content of a persuasive message.

#### Suggestions for Further Research

The following suggestions for further research developed as an outgrowth of this study:

First, it might be possible to replicate the study using essentially the same design, but including more occupational status positions. In addition, subjects could be used who are older or who are not attending college.

Second, a study should be conducted that would determine if the letter-to-the-editor format does influence credibility ratings. Also, the effects of the content of the messages on credibility ratings need to be ascertained, which could be accomplished by using other relevant topics. The initial opinions of the subjects toward an issue should also be considered in comparison with credibility ratings.

## APPENDIX A

### DIRECTIONS TO STUDENTS

I am conducting a poll among students here at The University of Arizona. On a strictly anonymous and voluntary basis, I would like you to think carefully about and list at least five broad controversies that you feel concerned about. Please list only global controversies which have been and appear to remain unresolved in the very near future. For example, the use of nuclear energy seems to be more of a long term problem than the issue concerning the boycott of the Olympic Games or the release of the hostages in Iran. Be as specific as you can. Are there any questions? Thank you for your cooperation.

APPENDIX B

LIST OF TOPICS AND NUMBER OF VOTES  
FOR PRELIMINARY STUDY

<u>Topic</u>	<u>Votes</u>	<u>Topic</u>	<u>Votes</u>
Drafting Women	1	Arms Race	4
Draft	6	Russian Expansion	3
Decline of Armed Forces	1	Threats of War	2
Decline of U.S. as Military Power	1	Cold War with Russia	1
Defense Spending	1	Terrorism	2
Military Aid for Developing Countries	1	World Relations	3
Salt II	1	Equal Opportunities for Men	1
Gas and Oil Shortages and Prices	14	Equal Opportunities for Women	1
U.S. Dependence on OPEC	1	Equal Rights Amendment	6
Inflation/Economy	16	Prejudice	2
Taxes	2	Human Rights	2
Interest Rates	1	Wildlife Conservation	1
Energy Source Alternatives	7	Killing of Whales	5
Solar Energy Alternatives	4	World Ecology	1
Nuclear Power	18	Wheat Sales to Russia	2
Nuclear Weapons	8	Marijuana Use	4
Pollution	8	Child Abuse	1

<u>Topic</u>	<u>Votes</u>	<u>Topic</u>	<u>Votes</u>
Pesticides and Chemical Uses on Food	2	Premarital Sex	1
Use and Misuse of Natural Resources	7	Homosexuality	4
World Food Shortage	12	Abortion	1
Overpopulation	7	Birth Control	2
World Poverty	3	Drinking Ages	1
Employment	3	Capital Punishment	1
Education Standards	1	Transportation Improvement	1
Lack of Reading and Writing Skills in High Schools	1	Genetic Engineering	1
Social Programs	1	Validity of PLO Claim	1

APPENDIX C

RANKING SCALE FOR PRELIMINARY STUDY

Rank Order

Directions: Below is a list of ten controversial topics. Please rank order them from 1 to 10 in order of their importance to you. A number 1 should be given to the topic you feel most concerned about. A number 10 should be given to the topic for which you have little or no concern about. Place your numbers in the space provided next to each topic.

- \_\_\_\_\_ The draft
- \_\_\_\_\_ Gas and oil prices
- \_\_\_\_\_ Inflation
- \_\_\_\_\_ Need for alternative sources of energy
- \_\_\_\_\_ Nuclear power plants
- \_\_\_\_\_ Nuclear weapons
- \_\_\_\_\_ Pollution control
- \_\_\_\_\_ Use of natural resources
- \_\_\_\_\_ World food shortage
- \_\_\_\_\_ World overpopulation

APPENDIX D

RATING SCALE FOR PRELIMINARY STUDY

Directions: Please complete Part I first in the sequence listed.  
Then complete Part II.

Part I

1. Complete column 1 of the rating scale by answering the following question for each of the ten statements:

Column 1 question: Is this an issue or concern that college students in general might be involved with?

2. Place the number corresponding to your response for each statement in column 1 using the following scale:

5	4	3	2	1
of great concern	of moderate concern	undecided	of little concern	of no concern

3. See the example. A #2 has been placed in column 1 as a response to the first statement.
4. Complete all of column 1 in this manner before moving to Part II.

Part II

1. Complete column 2 by answering the following question for each of the ten statements:

Column 2 question: How do you personally feel about the statement?

2. Place the number corresponding to your response for each statement in column 2 using the following scale:

5	4	3	2	1
strongly agree	agree	undecided	disagree	strongly disagree

3. See the example. A #5 has been placed in column 2 as a response to the first statement.

Example

	Column 1	Column 2
1. The 55 mile an hour speed limit should be abolished	2	5
2. All public schools should remain open through the entire year.		

Rating Scale

Statements	Column 1	Column 2
1. A policy for mandatory enlistment of men and women for the draft should be adopted.		
2. Raising gas prices is an effective way of promoting conservation of fuel and energy.		
3. The government should impose wage and price controls to curb inflation.		
4. Not enough alternative sources of energy are being developed in this country.		
5. More nuclear power plants need to be built in the United States.		
6. The continued development of nuclear weapons is essential for the defense of this country.		
7. The government should enforce stricter pollution control laws for industries in the U.S.		

	Column 1	Column 2
8. Because of concern for industrial growth and economic expansion, this country has in the past and continues to systematically destroy and use up its natural resources.		
9. Each country in this world should deal with its own food shortage problems.		
10. Overpopulation is a serious world problem.		

APPENDIX E

RANKING SCALE TABULATED SCORES

FOR PRELIMINARY STUDY

<u>Topics</u>	Rank Orderings									
	1	2	3	4	5	6	7	8	9	10
The Draft	3	5	2	3	2	4	1	2	3	21
Gas and Oil Prices	3	6	9	6	4	2	2	6	6	2
Inflation	16	5	7	5	2	1	3	4	1	2
Need for Alternative Energy Sources	10	10	4	8	5	4	3	1	1	0
Nuclear Power Plants	1	2	4	7	7	7	3	5	7	3
Nuclear Weapons	4	6	6	3	10	7	4	2	2	2
Pollution Control	1	2	4	3	4	5	10	11	3	3
Use of Natural Resources	1	2	3	8	4	9	10	3	4	2
World Food Shortage	5	7	3	2	4	6	3	7	5	4
World Overpopulation	2	1	4	1	4	1	7	5	14	7

APPENDIX F

RATING SCALE TABULATED SCORES

FOR PRELIMINARY STUDY

Scores for Column One

Topics	Ratings				
	1 Of No Concern	2 Of Little Concern	3 Un- decided	4 Moderate Concern	5 Great Concern
The Draft	0	2	0	17	27
Gas and Oil Prices	1	4	8	16	17
Inflation	1	3	12	18	12
Need for Alternative Energy Sources	0	1	5	22	18
Nuclear Power Plants	0	3	15	11	17
Nuclear Weapons	0	1	6	24	15
Pollution Control	1	6	7	20	12
Use of Natural Resources	1	4	9	15	17
World Food Shortage	2	4	17	11	12
World Overpopulation	1	12	10	13	10

## Scores for Column Two

Topics	Ratings				
	1 Strongly Disagree	2 Disagree	3 Un- decided	4 Agree	5 Strongly Agree
The Draft	10	9	8	12	7
Gas and Oil Prices	7	7	9	17	6
Inflation	7	8	10	12	9
Need for Alternative Energy Sources	0	2	3	16	25
Nuclear Power Plants	8	7	15	6	10
Nuclear Weapons	5	7	8	15	11
Pollution Control	1	1	8	19	17
Use of Natural Resources	0	5	9	19	13
World Food Shortage	10	13	7	10	6
World Overpopulation	1	6	11	15	13

APPENDIX G

THE FOUR PERSUASIVE ARTICLES USED  
IN THE MAJOR STUDY

Support the Oil Companies

To the Editor:

Raising gas and oil prices is not an effective way of promoting conservation of fuel and energy. Prices have doubled and even tripled in the last year. Yet, we still have not really made a dent in our consumption. If the prices continue to rise and the consumption remains the same, it is obvious that higher prices won't force Americans to conserve.

The vast majority of Americans will pay the higher price for gas no matter what the cost. We will cut back in other areas or find ways to get the gas money. We will not be denied the use of our cars at any expense, because we are a mobile society. We might complain about paying 60 or 70 dollars for a tank of gas, but we will pay it. We are not about to give up our freedom or pleasure or the luxury of private transportation. For example, just recently in the news, it was reported that many high school students are getting after school jobs so they can afford the gas to drive up and down the downtown streets on Friday and Saturday nights.

Raising prices won't make us conserve. Many other countries charge much higher prices for gas and oil than oil companies charge here. These high prices of \$3.00 to \$5.00 a gallon haven't seemed to limit consumption. Somehow, people come up with the money. And where does the money go? It goes to the oil companies. Therefore, the only major outcome of higher prices for gas and oil will be larger and larger profits for the oil companies, not reduced consumption. The prices will rise, we'll pay the price and let the oil companies become more powerful and wealthy at our expense.

Not only will we pay the price for gas, but we will also pay the price for fuel to heat and run our homes. We have to. We have no alternatives available to us. The fuel bill must be paid or many people will freeze to death during the winter in many parts of this country. We are caught in a trap. We either pay or suffer in terms of comfort and freedom.

Prices will continue to rise and we won't change our lifestyles. We will pay and go on padding the pockets of the oil companies. We just accept things as they are and won't do anything about it. We are not about to give up our freedom or our comfort to conserve fuel and energy, but we will go on letting the oil companies take advantage of us.

Name of Author  
Occupational Status

Stop Inflation

To the Editor:

Government imposed wage and price controls will not curb inflation. The controls can work for a time and sooth the American people, but as soon as they are lifted, the same old problems return. Wage and price controls are no solution because they can only bring a temporary reduction in the inflation rate. Therefore, people are lulled into a false sense of security and believe the problems of inflation to be solved. The tactic is quite effective in this sense but highly artificial. The American people let themselves be easily fooled into thinking that the government has all the answers and has made things better.

The government is receiving a lot of power that does not rightfully belong to it. We are giving the government that power and losing our own freedom. Realistically, wage and price controls are against the free enterprise system. They are undemocratic. Industries have a right to make profits and workers have a right to make good wages. If we accept wage and price controls, we are letting the government impose restraints on the natural flow of the economy which is counterproductive to the American way of life.

We have tried wage and price controls before and they have never worked. Perhaps the tables ought to be turned for a change and the government ought to be forced to take the responsibility. The government is the biggest spender and the biggest employer. The government should show some restraint as an example for the rest of the country. If the burst in government spending and borrowing would cool, then all of us would have an easier time meeting the challenge of inflation.

For example, budget cuts should be made with the Labor Department with military spending, and with the Department of Health, Education, and Welfare. Job reductions and partial hiring freezes in government jobs should be promoted. Public service jobs and military spending should be drastically cut. Maybe with these kinds of controls we can curb inflation. It certainly won't happen by taking away our freedom with wage and price controls.

Name of Author  
Occupational Status

Enough Energy Sources

To the Editor:

We have enough alternative energy sources. We have fossil fuels and we have developed ways of using solar and nuclear energy. We know what potential these have and we also know the disadvantages and limitations. Why should we spend money on new developments and risk new problems such as those we've suffered from developing nuclear power? Instead, we should examine what we have and spend money on those sources that first, do the best job in providing energy and second, make them environmentally safe.

The time has come to forge a great alliance in this nation: all of us know that if we are to survive, the environment must be maintained as a balanced, harmonious whole. We must all work together to preserve it. The obligation which our society forces on all of us is to discover how humanity can survive the new and existing power which science has given it. Every major advance in the technological competence of man has forced new obligations on human society. The present is no exception. We know the enormous benefits it can bestow, and we have seen the frightful threats. Why create new threats? Let's overcome the ones we've created and perfect the energy sources we have.

Each of the energy supply options being promoted today to meet the nation's increased consumption of energy comes with an environmental price tag. For this reason, none of the present or future means of increasing energy supplies appears very attractive from the point of view of our environment. But the dilemma is that we live in a high-energy civilization. It will take time to become somewhat less plugged in. Thus, the task for us is to decide which of the energy sources we already have is least bad. At stake are valuable and very tangible goods: our air, oceans, plains and deserts, beaches, mountains, and perhaps our very lives. Let's not take the chance of ruining what we have by playing with new ideas. Let's use what we have and make it work for the benefit of all.

Name of Author  
Occupational Status

Ban the Bomb

To the Editor:

We must make the issue of nuclear weapons our concern for our own future safety and well-being. We must stop the development of nuclear weapons. It takes a nuclear weapon to stop a nuclear weapon. However, the fact is, there is presently no adequate defense against massive nuclear attack. Yet, the decision has been made that we will continue to develop them for the defense of this country. So we think, let's go on from there. But stop and think a minute about where and how do we go on. Should the American people meekly accept the decision of our government to continue to develop nuclear weapons at our expense?

If nuclear weapons are ineffective for defensive purposes, why develop them? Why fuel the fire for nuclear attacks? The government is spending millions of dollars of our money to develop something that won't work. Perhaps, at best, all we have done is create a giant stand-off. I mean, who wants to toss the first bomb if they know they'll get it right back and have no defense? Everyone would suffer the same consequences.

So far as I know, the most conservative estimate of Americans killed in a major nuclear attack, with everything working as well as can be hoped and all foreseeable precautions taken, runs to 50 million. That's 50 million corpses--a gruesome statistic. But, we have become callous to gruesome statistics. But can we be so callous about the aftermath?

In a nuclear attack we would not have 50 million corpses to bury and bury them with them the memory. Instead, we would have a nation filled with millions of helpless, maimed, tortured, and doomed persons. The survivors of a nuclear holocaust would be huddled with their families in shelters, with guns ready to fight off their neighbors, trying to get some uncontaminated food and water. Should we let the government plan this kind of future for us?

Name of Author

Occupational Status

APPENDIX H

MODIFIED RANKING AND RATING SCALES

FOR MAJOR STUDY

Rank Order

Directions:

Below is a list of four controversial topics. Please rank order them from 1 to 4 in order of their importance to you. A number 1 should be given to the topic you feel most concerned about. A number 4 should be given to the topic for which you have little or no concern about. Place your numbers in the space provided next to each topic.

\_\_\_\_\_ Gas and oil prices

\_\_\_\_\_ Inflation

\_\_\_\_\_ Need for alternative sources of energy

\_\_\_\_\_ Nuclear weapons

Rating Scale

Directions:

Please rate each statement by answering the following question.

How do you personally feel about the statement?

Place the number corresponding to your response for each statement in the space provided using the following rating scale:

5	4	3	2	1
strongly agree	agree	undecided	disagree	strongly disagree

\_\_\_\_\_ Raising gas prices is an effective way of promoting conservation of fuel and energy.

\_\_\_\_\_ The government should impose wage and price controls to curb inflation.

\_\_\_\_\_ Not enough alternative sources of energy are being developed in this country.

\_\_\_\_\_ The continued development of nuclear weapons is essential for the defense of this country.

APPENDIX I

RESPONSE SCALE AND DIRECTIONS FOR COMPLETION

FOR MAJOR STUDY

Response Scale

Directions:

Each scale relates to a range of qualities that usually contribute to a reader's evaluation of the author's writing and information, like from "correct" to "incorrect" or from "trustworthy" to "untrustworthy." Your task is to mark each scale to indicate how you rate each author in terms of these characteristics.

In terms of "correctness" for example, if you believe the author is very, very correct, you should mark the box nearest to the words "COMPLETELY CORRECT" like this:

COMPLETELY CORRECT	✓							INCOMPLETELY CORRECT
-----------------------	---	--	--	--	--	--	--	-------------------------

Or, if you feel that the author of the article is very, very incorrect, you should mark the box nearest "COMPLETELY INCORRECT" like this:

COMPLETELY CORRECT							✓	INCOMPLETELY CORRECT
-----------------------	--	--	--	--	--	--	---	-------------------------

An author for whom you are not certain whether or not he/she is correct, you should check the middle box, like this:

COMPLETELY CORRECT			✓					INCOMPLETELY CORRECT
-----------------------	--	--	---	--	--	--	--	-------------------------

And finally, for an author who seems somewhat correct, but not completely so, or for an author who seems somewhat incorrect, but not completely so, you should mark either the second or the sixth box like this:

COMPLETELY CORRECT		✓				✓		INCOMPLETELY CORRECT
-----------------------	--	---	--	--	--	---	--	-------------------------

Or, for an author who seems somewhat correct or somewhat incorrect, but you are not really certain, you should mark either the third or the fifth box like this:

COMPLETELY CORRECT			✓		✓			INCOMPLETELY CORRECT
-----------------------	--	--	---	--	---	--	--	-------------------------

Be sure to mark each scale; don't skip any, even if your judgments about a certain characteristic are not crystal clear. Remember, there are no exactly "right" answers; your own judgments about each author are all that's important.

Now go on to the full set of exercises. Read each article carefully and then check the proper boxes to indicate your judgments of the author of each article.



APPENDIX J

PACKET DIRECTIONS FOR MAJOR STUDY

Please follow these instructions exactly in the order listed:

1. Take all of the materials out of the packet and keep them in the same order or sequence.
2. Read the response scale directions which apply to all four articles.
3. Read article number 1.
4. Complete the response scale for the article.
5. Place article with its corresponding response scale back into the packet and do not remove it.
6. Continue by reading article 2, 3, and 4 by following steps four and five as you did for article 1.
7. When you have completed all the material in your packet, return it to the researcher.

Thank you.

APPENDIX K

RATING RAW SCORE DATA AND CHI SQUARE RESULTS  
FOR THE FOUR ARTICLES

Gas and Oil Article

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Female	3	20	19	57	27
Male	3	27	17	30	20

$$X^2 = 6.921*$$

$$df = 4$$

\*Significant at .05 level

Inflation Article

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Female	12	52	39	14	9
Male	15	27	18	27	10

$$X^2 = 16.676*$$

$$df = 4$$

\*Significant at .05 level

Energy Article

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Female	37	55	18	14	2
Male	39	42	9	6	1

$$\chi^2 = 4.627^*$$

$$df = 4$$

\*Significant at .05 level

Nuclear Article

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Female	13	23	32	36	22
Male	15	34	13	23	12

$$\chi^2 = 12.531^*$$

$$df = 4$$

\*Significant at .05 level

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