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THE EFFECTS OF DELIBERATE VAGUENESS, ORDER OF
AGREE-DISAGREE ISSUES, SOURCE CREDIBILITY, AND
TIME ON RECEIVER AGREEMENT AND RECALL.

The University of Oklahoma, Ph.D., 1974
Speech

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THE UNIVERSITY OF OKLAHOMA
GRADUATE COLLEGE

THE EFFECTS OF DELIBERATE VAGUENESS,
ORDER OF AGREE-DISAGREE ISSUES, SOURCE CREDIBILITY,
AND TIME ON RECEIVER AGREEMENT AND RECALL

A DISSERTATION
SUBMITTED TO THE GRADUATE FACULTY
in partial fulfillment of the requirements for the
degree of
DOCTOR OF PHILOSOPHY

BY
M. LEE WILLIAMS
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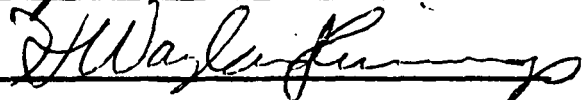
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A DISSERTATION

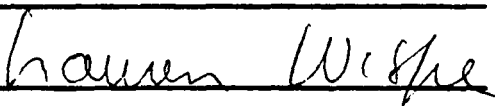
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THE EFFECTS OF DELIBERATE VAGUENESS,
ORDER OF AGREE-DISAGREE ISSUES, SOURCE CREDIBILITY,
AND TIME ON RECEIVER AGREEMENT AND RECALL

INTRODUCTION, RATIONALE, AND PURPOSE

One of the most widely acknowledged truisms in the area of persuasive communication is the necessity of audience analysis. The speaker must weigh the beliefs, attitudes, and values of the audience, levels of understanding, and past learning experiences if he expects to be effective in instigating change, be it attitudinal or behavioral. In like manner, rhetoricians since antiquity have also advised speakers to always seek clarity in their speaking and to avoid the use of ambiguity or vagueness. Aristotle contended that "style to be good must be clear" (Rhetoric, p. 654), and Quintilian insisted that "above all we must avoid ambiguity" (Institutes of Oratory, p. 83). This traditionally accepted tenet still survives, and many contemporary speech texts continue to call for a style which is always straightforward, addressing all issues clearly (Scheidel, 1972; Pace and Boren, 1973).

While our quest for clarity and language exactness has served a useful function, it seems that we have been

victimized by two major misconceptions: equating untruthfulness with ambiguity and confusing ambiguity in informative speaking with ambiguity in persuasive speaking. To encode a vague message is not necessarily to encode a lie or untruthful statement. Indeed, vagueness is not even a necessary condition for lying to occur, for there are many lies which explicitly identify their referents. It has apparently been overlooked that all words contain some degree of vagueness, and instead of being inherently bad, vagueness, like rhetoric, appears to be an amoral means which can be applied to produce many different ends. In a similar manner, we have confused the issue of whether or not ambiguity is a legitimate rhetorical technique by inappropriately imposing standards of information dissemination on messages which are more persuasion oriented. In those communication situations where the emphasis is strictly on the efficient transmission of bits of information from point one to point two it does not make any sense to purposefully encode a vague message. In this situation the classical rhetorician's demand for absolute clarity is well taken; however, a problem arises when we apply this principle indiscriminately to all forms of communication, particularly to persuasive communication. Among others, Alston (1967) contends that there are certain contexts where we are better off using terms that are vague rather than using terms that are specific, and he cites politics as a prime example.

Politicians and diplomats have practiced the art of equivocation for centuries, for they have found that success in politics often depends on keeping the opposition guessing and in leaving open a wide range of alternatives. George Gerbner states, "It is a political necessity to engage in calculated ambiguity in the use of symbols so that different constituent groups may derive different types of gratification from the symbol" (Thayer, 1967, p. 477). The question is not whether a diplomat should use purposefully vague language, rather can he afford not to.

It is ironic that our discipline should prescribe so absolutely that all forms of vagueness be avoided and at the same time contend that we should consider all those variables which might influence the communication process. Unfortunately there is a major void between our theoretical concern for ambiguity and the reality of how many people actually use this technique in their everyday communication. Modern rhetoricians and communication researchers have done very little in terms of investigating purposeful vagueness, with our closest attempts being studies of language adaptation and style; however, it would appear that a variable as persistent as verbal vagueness should receive more than a casual consideration.

This study is an attempt to better understand the use of deliberate vagueness in those communication situations where the speaker must address an audience which openly and

perhaps vehemently disagrees with him on certain issues. The speaker is faced with the problem of choosing a strategy which will maximize the probability of his success in terms of immediate as well as long-term responses. Given this situation, he has several options. Perhaps the simplest resolution to the problem would be to avoid confrontation and misunderstanding altogether by not even addressing the audience. Another possibility would be to give the speech but to completely ignore all issues which hold the potential for disagreement. These two approaches are commonly used and are often effective; however, they are rather limited in their application to certain circumstances. In the political arena where this strategy dilemma typically occurs, public officials are expected to make public appearances and deal with the important issues confronting their constituents. To constantly avoid the issues would be a dereliction of political responsibility.

A third possible strategy would be for the speaker to take the traditional advice of many rhetoricians and clearly address all issues, completely unfolding the intricacies of his position regardless of the nature of the audience. But this approach would probably be disastrous since it would more than likely alienate many in the audience, encouraging hostility from some, and possibly contribute to a loss in speaker credibility.

A fourth alternative for the speaker addressing a

disagreeing audience would be to use deliberate vagueness. According to this strategy the speaker clearly addresses those issues which he feels are acceptable to the audience and equivocates those issues with which they disagree. This strategy is not necessarily a persuasive device used to produce changes in the audience. Instead it is viewed as a stalling strategy which at best will slightly improve the status of the speaker and at worst prevent a loss in credibility or maintain an uncommitted audience predisposition. The speaker cannot depend on equivocation for ultimate attitude change, but he may use it strategically to avoid initial negative audience responses which might damage future persuasive attempts. By using equivocation the speaker is better prepared for subsequent persuasive encounters, perhaps more personal in nature, where the issues may be presented in clearer detail and where the listener is considered on more of a one-to-one basis.

There is a limited amount of research in the field of speech communication which supports the use of deliberate vagueness. In a rhetorical case study of Prime Minister Gladstone's handling of the Irish home rule debates of 1886 in the British House of Commons, Hufford (1962) discovered that Gladstone's vagueness throughout the campaign was profitable to his cause and produced no detrimental effects on society. Gladstone had notable success with the technique and his cause suffered on only two occasions, both being situa-

tions where his position was very clearly stated in public. Based on these findings, Hufford concludes that we should modify our traditional idea that clarity be a constant aim of speaking and that ambiguity always be avoided.

James Roever (1962) has presented a similar point of view in his argument for a more serious analysis of vagueness. He states, ". . . through the use of purposeful ambiguity, we can satisfy various needs of various individuals when they are in the same audience" (p. 4). According to his interpretation, such a strategy would contain high levels of abstraction with very little referent specificity. The inferred meanings would be left entirely up to the audience.

In a more recent experimental study of equivocation as a rhetorical strategy, Goss and Williams (1973) found that equivocating issues which the audience disagrees with can positively effect the speaker's character ratings. It was theorized that equivocation tends to suppress incongruent meanings to the point where the listener calls up only congruent interpretations, and by interpreting the message as congruent with his attitudes the listener judges the speaker more favorably. The authors concluded, ". . . equivocation seems to have its place in persuasion, and with continued efforts we will be able to specify its role more fully" (p. 167).

Following the initiative generated by these prior investigations, this study explores in more detail the

possibility that the use of deliberate vagueness under certain circumstances can be an effective and useful rhetorical strategy.

CHAPTER I

REVIEW OF THE LITERATURE AND HYPOTHESES

In order to determine the specific effects produced from exposure to equivocated messages we must incorporate the findings of a large body of research if a full and comprehensive understanding of deliberate vagueness is to be established. While a variety of theoretical positions could be considered, there are three main areas of research which appear to contribute most significantly to an understanding of equivocation. First is the literature investigating information processing and the recall of word lists done by psychologists interested in verbal learning. A second area of concern is the persuasion literature dealing with attitude change and the effects of source credibility. A final area of interest which has the potential for making theoretical contributions to our understanding of equivocation is research investigating the long-term recall of more complex messages such as speeches and written statements.

The purpose of this chapter is to relate these different areas of research in an effort to generate a variety of research questions and hypotheses about the effects of

deliberate vagueness as it functions in the presence of other communication variables. Before considering this literature, however, it is necessary first to clarify the meanings of several key terms.

Defining Ambiguity, Vagueness,
and Equivocation

There is considerable confusion regarding the distinguishing characteristics of ambiguity, vagueness, and equivocation, and frequently the research literature uses these terms interchangeably. They are not synonymous, however, and even though they share common traits, each contains an individuality which allows us to differentiate between them.

In general, these terms indicate some form of uncertainty or imprecision. Philosophers and linguists have traditionally been concerned with verbal uncertainty, specifically in terms of its inevitable presence in all words and in the problem it creates in the logical analysis of philosophical concepts. Bertrand Russell (1923) has presented a classical discussion on vagueness, and Black (1937), Hempel (1939), Wittgenstein (1953), and Alston (1964) have also made noteworthy contributions to the analysis of vagueness. These investigations provide a conceptual basis for differentiating the various kinds of verbal uncertainty, and the issues which have emerged from these philosophical discussions serve a fundamental role in our understanding of the referential domain of these three terms.

An ambiguous term is one which has two or more rather distinct and clear areas of reference; however, the choice between the alternative referents is in question. For example, the word "star" may refer to a glowing object in the sky, a geometrical figure with five points, or the principal member of a theatrical production. The fields of reference are distinct, but it is not clear which meaning should be chosen. The listener must depend on the context of the word, both in the sentence and the situation, in making this choice.

A vague word is one which has one field of reference but the extent of its boundaries is in question. When the outer parameters of the meaning of a word are fuzzy and flexible there is room for a broad or narrow range of interpretations depending on the individual perceiving the message. For example, how old is middle-aged? Perhaps we would agree that a person 50 years old is middle-aged, but what about a person 40, or one 60 years old? We could probably agree that ages 20 and 80 are not middle-aged, but we would have difficulty agreeing on the boundary ages for the term "middle-aged." With vagueness the issue is one of precision, whereas with ambiguity the issue is one of accuracy, and while there is some vagueness in all words, not all terms are ambiguous; that is, not all words have different and distinct fields of reference.

The final term to be defined is equivocation. Very simply, equivocation is being deliberately vague. By choosing

words which have flexible boundaries and a wide range of interpretation, a speaker allows listeners to react in a way which suits them best and to supply whatever referents they feel belong in the range covered by the equivocated phrase. The goal of equivocation is to avoid offending people, to minimize alienation, and to avert a loss in credibility. Dealing more specifically with the nature of equivocation, Goss (1971a) indicates:

Equivocation implies connotative agreement and referential disagreement. We both will agree a thing is good, but what precisely the thing is, we may disagree on and never know that we disagree. Connotatively we agree, denotatively we think we understand but don't realize that we may not. The success of a speaker's equivocation depends on the ease with which the respondent can attach a meaning and on the respondent's failure to notice the vagueness of the message. The respondent should never question the clarity of the message (p. 15).

Therefore, we may conclude that even though these three terms have similarities, each identifies a specific kind of verbal uncertainty and possesses a distinguishable set of characteristics.* This study is concerned specif-

*Many of the studies referenced in this review of the literature use the terms ambiguity, vagueness, and equivocation interchangeably. Often the reading is confounded by finding what one author calls ambiguity another author calls vagueness. Their meanings are the same but the terminology differs. In an effort to minimize this confusion, this study places the emphasis on how these terms are conceptually and operationally presented in the literature instead of how they are tagged. For the remainder of this investigation these terms will be used consistently in keeping with the definitions presented above. Whenever necessary, the terminology employed by certain authors has been recoded so as to correspond with these definitions.

ically with equivocation, also referred to as deliberate vagueness or purposeful vagueness. Given certain circumstances, a vaguely encoded message might be a very effective rhetorical strategy for the speaker; however, since very little research has directly focused on this variable, we must consider a wide assortment of research findings which presently exist in the literature in hopes of generating theoretical statements and testable hypotheses about equivocation. The first research area to be considered is the investigation of information processing.

Word List Research Investigating Information Processing and Recall

In recent years there has been an increased interest in understanding how man processes, stores, and retrieves information. While some investigations have looked at this processing behavior in general, the majority of the research has focused on how the individual learns lists of words and how those words are recalled from long-term memory (Tulving and Donaldson, 1972). A variety of theoretical positions have been employed, some endorsing more of an associationist approach (Wood and Underwood, 1967), some identifying with an organizational or reconstructionist position (Mandler, 1972), and some borrowing freely from both of these approaches to produce more of an eclectic orientation (Postman, 1972). These researchers agree that man has a limited capacity for processing and retaining information, and through the organiza-

tion of this input material he equips himself with a means for handling large amounts of data. They differ, however, as to the nature of this organization and how it facilitates memory. According to the strong principle, "organization is absolutely necessary if memory is to exceed the limit of individual items that the system can deal with at any one time" (Mandler, 1967, p. 331). By subjectively recoding the input into new and larger chunks, memory is improved since the individual recalls a limited number of chunks and their contents instead of discrete pieces of information. In contrast, the weak principle contends that while organization possibly aids memory, factors such as the association of semantic, phonetic, and serial components also facilitate memory. Despite their differences, these varying interpretations agree more than they contradict or challenge each other. In general, they operate from the basic contention that each individual develops a fundamental set of associative and categorical structures, and given any message there is an optimal organization of that material which will maximize understanding and recall.

While there is no single information processing model which is generally accepted by word list researchers, the majority of them commonly agree that concepts and relations are the primary units of analysis in the human memory system (Fillmore, 1968, 1969; Kintsch, 1972; Rumelhart, Lindsay, and Norman, 1972; Bower, 1972; Collins and Quillian, 1972).

Of special interest is the work by Rumelhart, Lindsay, and Norman (1972) who have developed a processing model of long-term memory presented in the form of a computer retrieval system which simulates human memory. These authors contend that the two basic elements in man's information system are nodes and relations. Nodes are the total body of knowledge a person possesses at any given point in time. They are clusters of information which represent concepts, events, and episodes experienced by the individual. Relations link nodes together, with each relation having a name and specifying a direction. They are used by the memory system to encode logical and semantic associations among nodes, and any two nodes may have one or several multidirectional relations.

According to Rumelhart, Lindsay, and Norman (1972) and some additional research by Norman and Rumelhart (1970), over time an individual develops a semantic discrimination system. On the basis of a few initially learned primitive concepts, a semantic retrieval network is built up which compares each new input against items currently in storage. Certain material is permanently retained while other material is temporarily processed through short-term memory and then forgotten. Whenever an input enters the short-term memory system (either old or new information), if it is found to share some semantic attribute with an existent concept within the system, and if the material is deemed important, it is integrated into the

concept. If only some of the input attributes are held in common, the existent concept is subdivided to form two concepts. The original concept retains the common attributes and the other concept contains the unique attributes. There may be one or several subdivisions depending on how many different dimensions the individual perceives. With repeated exposure and depending on the stability of the established concepts, a set of long-term memory concepts of a semi-permanent nature are formed. These serve as the basic, fundamental core of interacting categories the individual uses to understand and cope with his environment.

The research investigating the free recall of lists of words has also produced rather conclusive evidence that long-term retention is greatly dependent on the cues established during initial exposure to the stimulus (Mandler, Pearlstone, and Koopmans, 1969; Thomson and Tulving, 1970; Tulving and Osler, 1968; Tulving and Pearlstone, 1966; Weist, 1970). If the input is not meaningfully structured during acquisition it does not readily lend itself for subsequent recall. The analogy is often made between elements within memory and books in a library. A book is lost if there is no index to indicate its location, and in like manner an item in memory is lost if there is no logic to guide its retrieval (Broadbent, 1973; Norman, 1969). There are several characteristics of the message which facilitate this logic. Perhaps the most dominant of these is hierarchi-

cal organization, often referred to as semantic structuring (Miller, 1956; Bower, Clark, Lesgold, and Winzenz, 1969; Tulving, 1962). If a label such as a category name is attached to a higher-order unit, then that label can serve as a potential retrieval cue for the individual components in the unit (Tulving, 1964; Tulving and Pearlstone, 1966; Kintsch, 1970). The order of presentation of the input list also tends to effect recall, especially in the single-trial free recall situation (Bower, 1968; Kintsch, 1968). Related to this research on the order of presentation is the finding that subjects tend to adopt experimenter imposed organization and use it in recall (Tulving and Patkau, 1962). Other factors which have been found to aid recall are repeated exposures using a consistent order of input (Lachman and Laughery, 1968; Mandler and Dean, 1969; Postman, Burns, and Hasher, 1970), mnemonic devices such as pegwords (Wood, 1967; Senter and Hauser, 1968), syntactic or generative rules (Voss, 1972; Bower, 1972), and formal traits of the message such as visual or auditory similarities (Voss, 1972). Bower (1972) summarizes this literature by contending that the adult learner has available to him a variety of strategies for storing any material he casually encounters or is required to memorize. The most common and general strategy is to see whether the new material is in some way close to something already known. In his desire to expend the least effort possible and still accomplish the task, the information

processor seeks to impose something known on that which is unknown, thus providing an understanding of the stimulus and creating a cue for recall.

While the studies investigating word list memory have provided us with much new information, there are some rather severe limitations to this type of research. First, most of these studies operate on the basic assumption that the learner is an active and involved information processor; however, under normal living conditions we probably fluctuate greatly in terms of our attention and concern for various types of stimuli. Subjects may not process material where there are explicit instructions and cues that the items are to be memorized in the same manner in which they passively observe everyday situations. Also, the typical memory experiment is usually one where there are repeated trials instead of a single exposure. More needs to be known about retention, storage, and recall under these limited exposure situations. A final weakness of this type of research concerns the nature of the unit of analysis. Since most of the word list research focuses on words instead of phrases or sentences, syntactical relationships as well as affective influences tend to be neglected. Some studies have looked at recall on the basis of serial order, but very few have taken the sentence or an abstract idea as the basic recall unit. In like manner, most studies investigating word recall have been more concerned with denotative or functional

relationships rather than pursuing retention on the basis of attitudinal agreement or disagreement with the message. We must look beyond the word list experiments if we are to receive answers to these additional concerns.

A Reconceptualization of the Persuasion
Literature Based on the Nature of the Message

In an effort to better understand equivocation, we may employ the findings of word organization and recall studies to pose three basic response alternatives available to the information processor who perceives a message. First, he could accept the message he sees or hears. If the contents of the message are familiar and fit existent concepts, the information is integrated with a minimum amount of effort. If the contents are familiar but restructured in such a way as to expose new relationships, or if it is new and unfamiliar material but not far removed from previously learned concepts, the message may be assimilated by the receiver. This process requires more effort, but it is one which is easily accomplished.

A second possibility for the information processor who encounters a message would be for him to reject it. If the contents are familiar but do not fit the individual's subjective categories they may be immediately disposed of and not allowed to interfere with the established coping mechanisms. The same response might occur with old information which has been reconstructed to produce a

new awareness or with completely new information not previously encountered. In addition, the individual might go so far as to contrast the undesirable input, viewing it as extreme and radical in an effort to avert disruption to the category system.

As a final alternative, the information processor might change his concepts as a result of exposure to the message. We might consider this to be the typical persuasive event, where the concepts of an individual are subdivided and the new material becomes an integral part of the semantic network. Such a response might occur if old information is reconstructed so as to produce a new concept or if completely new information is given. In effect, the changing of a concept is a special case of acceptance, with the primary differences being the degree of effort and the nature of the category change. With acceptance the input is simply incorporated into the system with no fundamental changes being made in the concepts or linking relations. With change, however, there is more effort involved since there is a relinquishing of the old concepts, and the memory system takes on fundamentally different components. Here the emphasis is placed on the creation of new concepts rather than simply identifying with those previously held.

These three response alternatives and the situations where they are most likely to occur provide us with the basic categories for understanding some of the more recent

trends in information processing research; however, these categories have a more important function. There is a logical and fundamental relationship between this research and the attitude change, source credibility, ego involvement, and recall concerns of social psychologists and communicationists. Using the nature of the message as the basic model for structuring previous research, we may reconceptualize the persuasion literature and our view of persuasive effects as a special case of information processing. This exercise will hopefully generate new insights, provide an incorporation of previously separate areas of research, and produce meaningful theoretical applications to the study of equivocation. The review of the literature which follows takes as its point of departure three different types of messages. The receiver's responses are analyzed on the basis of the message as it is experienced in the presence of additional influencing variables. The three types of messages are:

1. A clear message which is moderately to highly discrepant with the receiver's existing concepts.
2. A clear message which is neutral or slightly discrepant with the receiver's existing concepts.
3. A vague message which does not clearly identify with the receiver's concepts.

A Clearly Stated Message Containing Moderately to Highly Discrepant Information

If a clearly stated message which is not attributed to any specific source is moderately to highly discrepant

with the receiver's position, the message will most likely be rejected by the receiver and there will be little to no immediate attitude change. Studies by Hovland, Harvey, and Sherif (1957) and Manis (1961a) support this contention as well as indicate a contrast effect; that is, subjects perceive the unidentified source as being further removed from their own position than what he actually is. In like manner, Manis (1961b) and Kelman and Eagley (1965) found an even greater contrast effect when the message was attributed to a low credible source.

Research also indicates that a highly discrepant message can produce immediate attitude change. For instance, if there is low ego involvement and if the message is attributed to a medium or high credible source, a linear relationship exists between increased discrepancy and attitude change (Hovland and Pritzker, 1957; Rosenbaum and Franc, 1960; Aronson, Turner, and Carlsmith, 1963; Bochner and Insko, 1966). In contrast, if there is medium to low ego involvement and if the source is not identified or if he is of low credibility, a curvilinear relationship exists between increased discrepancy and attitude change (Haiman, 1949; Hovland and Weiss, 1951; Cohen, 1959; Aronson, Turner, and Carlsmith, 1963; Freedman, 1964; Bochner and Insko, 1966). There is no indication of a contrast effect under these conditions, however.

Hovland, Harvey, and Sherif (1957) explain these different findings primarily on the basis of involvement

with the issues and credibility, but a different explanation has been proposed by Aronson, Turner, and Carlsmith (1963) in terms of cognitive dissonance. They suggest:

. . . when an individual finds that an opinion advocated by a credible communicator is discrepant from his own opinion he experiences dissonance. His cognition that he holds a particular opinion is dissonant with his cognition that a credible communicator holds a somewhat different opinion. The greater the discrepancy between his own opinion and the opinion advocated by the communicator, the greater the dissonance. Generally, a person might reduce his dissonance in at least four ways: he could change his own opinion to bring it closer to that of the communicator; change the communicator's opinion to bring it closer to his own opinion; seek support for his opinion by finding other people who hold similar opinions; derogate the communicator--that is, make the opinion of the communicator nonapplicable to his own by discounting the ability of the communicator to have a valuable opinion on the topic (pp. 31-32).

In most experimental situations the subject does not have an opportunity to try and influence the communicator, and since he is a member of a noninteracting audience he is unable to seek immediate social support. This means that in the typical experimental study the receiver may reduce his dissonance either by changing his opinion toward the message or derogating the source. The former condition prevails when the source is of relatively high credibility and the receiver changes his attitude in order to regain cognitive stability. In contrast, the latter condition is the more probable dissonance reducing alternative if the source is not named or if he is of low credibility.

A Clearly Stated Message Containing Neutral or Slightly Discrepant Information

Under these circumstances and for an unspecified source, the most typical finding is for the subject to assimilate the message (Campbell, Hunt, and Lewis, 1957; Hovland, Harvey, and Sherif, 1957; Manis, 1961a; Sherif and Hovland, 1961; Dillehay, 1965). Emanating out of social judgment theory (Sherif, Sherif, and Nebergall, 1965; Sherif and Sherif, 1967), assimilation occurs when a subject, in judging the messages of others, uses his own views as an anchor. When only a small discrepancy in positions exists, there is a tendency for displacement toward his own stand; that is, if the message falls within or near the receiver's latitude of acceptance, whatever differences might exist are ignored and the point of view expressed in the message is distorted so as to conform to his beliefs. If the source of the message is a medium or highly credible individual, there is an even stronger tendency for assimilation to occur (Kelman and Eagley, 1965; Bochner and Insko, 1966).

There is also evidence indicating that the context surrounding the message, such as order of presentation and pre-sets, tends to affect the assimilation of information. Campbell, Hunt, and Lewis (1957) designed a study where subjects judged a series of nine messages in an effort to evaluate the source's degree of imbalance. In one group the order progressed from relatively normal responses to more

disturbed responses, with the reverse order in the other group. Results indicated that the evaluators assimilated the latter messages in terms of the prior messages. These findings are explained by Helson's (1964) adaptation theory which states as each stimulus is judged it becomes part of the context or anchor. With an ascending order of presentation each stimulus is judged against a background of previously experienced information. McGuire (1969) indicates that this primacy effect has quite commonly been found in impression formation research. Studies by Jones and Gerard (1967), N.H. Anderson (1965), and McGinnis and Oziel (1970) all tend to support this assumption, especially when the initially presented material is perceived as being consistent and meeting prior expectations (Jones and Goethals, 1971). Additional research by Weiss (1957), Tannenbaum (1966), and Tannenbaum and Gengel (1966) indicates that an agree-disagree order tends to create a more positive view of the source since he is associated with initially agreeable issues.

According to the social judgment literature, a message falling in a receiver's latitude of rejection is one that becomes increasingly more discrepant with his beliefs. This could include a neutral message which is seen to be highly unacceptable. Under these conditions a contrast effect was originally predicted, but the research tends to indicate that this effect does not occur when the source is left unidentified (Dillehay, 1965) or even when a low credible source is

used (Manis, 1961b). An undesirable neutral message is usually rejected, but it is not contrasted. Finally with regard to clearly stated neutral statements, it should be mentioned that little to no attitude change is expected when a slightly discrepant or neutral message is given unless there is very little ego involvement and a highly credible source is used. This finding plus evidence showing the extreme importance of ego involvement constantly reappears throughout the literature (Sherif, Sherif, and Nebergall, 1965; Sereno, 1969; Mortensen and Sereno, 1970; Johnson and Scileppi, 1969).

A Vague Message

In most of the past research using vague messages the stimulus has been operationalized as either a vague visual object or a verbal message which does not clearly identify its referents. Sherif (1936) and Asch (1952) instigated some of the initial studies investigating how subjects perceive visual stimuli which are vague or ambiguous in an effort to assess the effects of social influence. These studies indicate that even when confederates advocate highly discrepant judgments, subjects tend to conform to the previously established group norm. In a more recent study by Insko, Murashima, and Saiyadain (1966) a variety of complexly arranged objects varying in size, shape, color, and spatial distribution were presented to groups of subjects. Discrepancy

was manipulated by having confederates describe the vague stimuli as containing many more objects than were actually present. The two experiments reported in this study offer strong support for the finding that in this conformity situation where numerous public judgments are taken, the relationship between discrepancy and influence is curvilinear. Results also indicated that the more vague the object of judgment the greater the influence of the discrepant message, and as the confederate's suggestions became more and more discrepant the very vague stimuli tended to influence subject agreement longer than did a less vague stimulus. The authors explained these findings both in terms of social judgment theory and dissonance theory. Emphasis was placed on the judgmental point of view which contends that vagueness operates so as to increase the latitude of acceptance, thus allowing for more assimilation and conformity to the discrepant statements.

In recent years there has been an increase in the number of experimental studies investigating verbal vagueness. Samovar (1962), using passages from the 1960 Nixon-Kennedy debates, found that when subjects were asked to state what they thought the speaker was saying the vague messages evoked an average of 15.5 different interpretations while the clear messages produced an average of 6.6 different interpretations. A similar finding is reported by Goss (1971b) who found that clear nouns need less response time and generate more

homogeneous responses than do ambiguous or vague nouns.

Wilson (1971) has also manipulated message vagueness, operationalizing it as levels of denotative abstraction with connotatively positive words. Using three levels of vagueness, he hypothesized: (1) the greater the degree of vagueness the more the message would be assimilated toward the receiver's own position, (2) the greater the vagueness the higher the ratings of source credibility, and (3) there would be more attitude change with a highly vague message. The last two hypotheses are based on the assumption that since a vague message should allow the receiver to assimilate the source's position and therefore provide more support for his own views, the receiver should attribute more credibility to the source as well as have a more favorable attitude. The results did not support any of the hypotheses even though the moderate level of vagueness had a greater tendency to support the predicted differences than did the highly vague messages. In explaining these results Wilson acknowledged several weaknesses in the study, the primary problem being an inadequate operationalization of vagueness. It should also be noted that in this experimental manipulation all the messages addressed the same issue (one with which the subjects generally agreed). These nonsignificant findings might possibly indicate the overall ineffectiveness of using purposeful vagueness with messages which the audience finds agreeable.

This reconceptualization of the persuasion literature based on the nature of the message has clarified several issues. It indicates that the nature of the message (clearly stated or vaguely stated message), the credibility of the speaker (high, low, or unspecified credibility), as well as the degree of attitude discrepancy between the speaker and receiver (slightly, moderately, or highly discrepant) greatly effect the way the receiver processes information. Under certain circumstances the receiver is more disposed toward assimilating the message and under other conditions the probability of rejecting the message is increased. Perhaps the most significant finding with regard to vague messages is the observation that they generate more different interpretations than clear messages and that vague messages might be more effective with issues the audience disagrees with more than with agreeable issues. Before considering the specific research questions and hypotheses suggested by these findings, one final area of research needs to be considered.

The Recall of Complex Messages Over Time

In addition to the word list research, another body of research more closely associated with the persuasion literature has focused its attention on the recall of issues or ideas expressed in a speech or written message. Here the emphasis has been placed on the nature of more complex mes-

sages, not just words, and their effects on long-term memory. A question of central concern is: If the receiver hears a clearly stated message with which he disagrees, or one with which he agrees, or a vague message where the referents are not clearly identified, how well will that message be remembered over time?

It should be initially clarified that there is more to forgetting than simply the passing of time. Other variables contribute to the forgetting of complex messages, as Manis (1966) and others have clearly demonstrated. For example, the intervention of new material tends to produce memory loss. Most researchers have explained forgetting in terms of the decay of information over time, however, and the available research reveals wide spread agreement that there is decay not only in induced attitude change but also in the ability of the receiver to recall the message. McGuire (1957) found that about 40% of the initial persuasive effect of a message decays after a week, and Watts and McGuire (1964) found that after six weeks about 60% of the message effect had decayed. Dealing more with the content of a message rather than attitudes, Bartlett's (1932) results reveal that there is a qualitative change in retention over time, where the main points tend to stand out more clearly but the obscure details are forgotten.

Members of the "Yale group" have produced evidence to indicate that the source of a message and the contents of the communication become disassociated over time (Hovland and

Weiss, 1951; Hovland, Janis, and Kelley, 1953). This research also indicates that credibility effects are short-lived. When a message is attributed to a high credible source there is immediate attitude change, but this effect tends to disappear after several weeks. Similarly, when a message is associated with a low credible source there is a negative effect on attitude change, but over time this decrease in persuasion tends to vanish. This latter phenomenon is commonly known as the "sleeper effect." In addition to these findings, more recent research shows that attitude change produced by compliance decreases more rapidly over time than that which is internalized (Kelman, 1958, 1961), and attitude change is more persistent if the receiver actively participates in the persuasive communication (McGuire, 1964; Watts, 1967).

While source credibility has been found to significantly effect immediate attitude change, there is substantial evidence to indicate that credibility has almost no effect on learning or recalling the message (Hovland and Mandell, 1952; L. Anderson, 1966; Gibb, 1966; King, 1966; Johnson, Torcivia, Poprick, 1968). In his review of the effects of source credibility, Littlejohn (1971) found that the recall literature supports this finding by a 13 to 1 ratio. Some studies even indicate that a message attributed to a neutral source or one where no source is given produces more learning than one where there is a high or low credible source

(Kelman and Hovland, 1953; Rarick, 1962). Bauer (1965) supports this position contending that as long as the person evaluating a message knows the source is high or low in credibility he can evaluate the conclusion without paying attention to the arguments used. It is only when he is unable to evaluate the source that he must analyze the arguments themselves.

With regard to the issue of whether agree messages are remembered better than disagree messages, there are a variety of different findings. Some studies have shown that favorable messages are more likely to be recalled than those which the receiver opposes (Paulson, 1954; Carter, 1962; Katz and Feldman, 1962), other studies have shown there is no significant difference (Platt, 1964; Hughey, 1969), and others have found that subjects tend to seek out and attend discrepant information (Canon, 1964; Mills and Ross, 1964). There is some indication that other variables such as implicit or explicit statements (Fine, 1957), the order of desirable and undesirable issues (McGuire, 1957; Tannenbaum, Macaulay, and Norris, 1966), and re-exposure to the message (Kelman and Hovland, 1953) might interact with the receiver's disposition toward the message to produce increased recall. At present the research has not clarified these various effects, and more research is needed before these issues can be resolved.

Research Questions and Hypotheses

Much of our initial research investigating human communication operated on the assumption that there were some rather broad lawlike statements we could make about man and that these generalizations could serve as the basis for accurately predicting communication behavior. As a result of recent research advances using more sophisticated techniques, however, we are becoming more and more aware of the complexity of human behavior. McGuire (1969) in his discussion of attitude studies indicates that in the past few years there has been a shift to formulating and testing interaction hypotheses instead of looking merely for main effects. Our emphasis is now being directed toward understanding how many different variables interact to produce a specific response, and researchers are using more complicated experimental designs which assess the effects of many factors instead of just one or two. In keeping with this research trend where many different variables are manipulated within a single design, the present study is an effort to more clearly comprehend how deliberate vagueness, source credibility, order of agree-disagree issues, and time interact to effect message agreement and recall.

With regard to agreement, prior research adequately demonstrates that since highly discrepant messages tend to be annoying to the information processor, clearly stated disagree issues presented by a low credible or unidentified

source tend to be rejected or even contrasted by the receiver (Hovland, Harvey, and Sherif, 1957; Manis, 1961a, 1961b; Kelman and Eagley, 1965). Research also indicates that clearly stated disagree issues attributed to a highly credible source have little to no effect on agreement (Hovland and Pritzker, 1957; Rosenbaum and Franc, 1960; Aronson, Turner, and Carlsmith, 1963; Bochner and Insko, 1966). The literature is not clear, however, as to the dominant factors which influence the acceptance of vaguely encoded disagree issues. One possibility is that the listener is more inclined to accept an equivocated message more than a clearly stated disagree message since he can infer the referents as he sees fit, using his predispositions and the surrounding circumstances as frames of reference. It could be that perceived source credibility plays an important role in this assimilation process; however, previous research has not addressed this possibility. A variety of questions are produced from this speculation: Is deliberate vagueness beneficial only to a high credible source, or does it also operate to the advantage of a low credible source? Is it always better to equivocate disagree issues regardless of your credibility, or is deliberate vagueness a technique which can be used only under certain circumstances?

Other questions are raised regarding agreement with equivocated issues and the attitudinal pre-set established by the first series of issues presented in the message. If the

speaker initially identifies with the listener by presenting favorable issues, is the receiver more disposed toward assimilating subsequent equivocated issues, or is equivocation effective regardless of its position in the message? Is there a combination of deliberate vagueness, source credibility, and order of agree-disagree issues which tends to maximize audience agreement?

In addition, the variable of time might also be important. Does deliberate vagueness benefit agreement with the message immediately after exposure, does it have a long-term effect, or is it equally effective immediately after exposure as well as after the passing of time? Is agreement influenced by a significant interaction between the equivocation of disagree issues, source credibility, and time, and if so, which combination of these variables facilitates agreement the most?

These are important research questions, but since no previous research has investigated these interactions, it is difficult to make precise predictions. For this reason, the present study must assume more of an exploratory nature. In terms of agreement, the overall research question is: What are the effects of deliberate vagueness, source credibility, order of agree-disagree issues, and time on agreement with the message? While a variety of post-hoc analyses are anticipated in an effort to answer this question, the following hypotheses are also offered for testing:

- H1: There will be a significant interaction between the degree of message vagueness and source credibility when message agreement is measured.
- H2: There will be a significant interaction between the degree of message vagueness, source credibility, and time when message agreement is measured.

These hypotheses are based on the assumption that given any speaking situation there is a particular type of message encoding which will maximize the speaker's success. While all symbolic messages exhibit some degree of vagueness, some messages specify their referents more clearly than do others. In terms of a rhetorical strategy, it is obvious that the speaker should clearly address those issues which the audience agrees with; however, research has not clearly demonstrated the advantage of clearly addressing disagree issues or equivocating disagree issues. The above hypotheses seek to clarify this issue by posing two degrees of message vagueness: one where both the agree issues and disagree issues are clearly addressed and the other where agree issues are clearly stated but disagree issues are equivocated.

The second major variable of interest to this study is message recall. The number of disagree issues a receiver can recall and the quality of recall are important concerns for the speaker anticipating the use of deliberate vagueness. A message containing clearly stated disagree issues might possibly be retained in memory and recalled over time, especially when the speaker or those issues are encountered at some later date. In addition, clearly stated disagree issues

probably place the speaker on the defensive. Not only does he create a situation where he must defend disagreeable issues in subsequent communications but there is a tendency for the audience to become more actively involved in disagreeing with the speaker, an act which might produce strong memory associations. Clearly addressing disagree issues might lead to a lowering of credibility, an increased potential for recalling negative information, and a long-term negative predisposition toward the speaker (since vividly imprinted disagree issues have been associated with the source). With equivocated disagree issues, however, the meanings should not be decoded as clearly by the receiver and thus should be forgotten rather quickly. Here the speaker assumes more of an offensive role, and when addressing those disagree issues at a later date he will not have to correct or change unfavorable information the receiver might recall.

Many of the research questions raised in the discussion of agreement can also be asked about recall, with one major exception. In terms of recall, the review of the literature clearly demonstrates that source credibility is not as important as it is with agreement (L. Anderson, 1966; Gibb, 1966; Johnson, Torcivia, Poprick, 1968; Littlejohn, 1971). With recall, time and the nature of the message tend to be the dominant factors. Research indicates that messages which are organized and which contain cue words are more easily remembered (Mandler, Pearlstone, and Koopmans, 1969; Thomson

and Tulving, 1970; Tulving and Osler, 1968); thus, a clearly stated message where the referents are specifically identified should be easier to tag for retrieval than an equivocated message where the cues are vague and imprecise. It appears that initial exposure to the equivocated issues does not provide an adequate plan for retrieval which might be used later to facilitate recall. In addition, the order in which issues are presented might also influence recall, both in terms of the number of issues recalled and the quality of recall (McGuire, 1957; Tannenbaum, Macaulay, and Norris, 1966). A variety of research questions are generated from this speculation: Immediately after exposure to the message, are the clearly stated disagree issues recalled better than equivocated disagree issues? Over time does a listener remember clearly stated disagree issues and equivocated disagree issues equally well, or is one remembered better than the other? Is recall dependent primarily on the amount of time between exposure to the message and recall, and/or is it dependent primarily on the order in which issues are presented? Is there a significant interaction between the vagueness of disagree issues, time, and the order of agree-disagree issues which effects memory recall?

In sum, the research question being proposed with regard to recall is: What are the effects of deliberate vagueness, source credibility, order of agree-disagree issues, and time on the number of disagree issues recalled and on the

quality of disagree issues recalled? As before, post-hoc analyses are anticipated in hopes of clarifying this question. In addition, the following hypotheses regarding recall are also offered for testing:

- H3: There will be a significant interaction between the degree of message vagueness and time when amount of recall is measured.
- H4: There will be a significant interaction between the degree of message vagueness and time when quality of recall is measured.
- H5: There will be a significant interaction between the degree of message vagueness, message order, and time when amount of recall is measured.
- H6: There will be a significant interaction between the degree of message vagueness, message order, and time when quality of recall is measured.

The following chapter presents the method of analysis used in investigating the relationships among these variables.

CHAPTER II

METHOD OF ANALYSIS

Details regarding the variables, design, procedures, and data analysis are individually discussed in this chapter.

Variables

This study investigated the effects of deliberate vagueness, order of agree-disagree issues, source credibility, and time on receiver agreement, the number of disagree issues recalled, and the quality of disagree issues recalled. The independent variables were operationalized in the following manner. In terms of vagueness, two types of messages were encoded. One message consisted of three clearly stated agree issues and three clearly stated disagree issues, while the other message contained the same three clearly stated agree issues but equivocated the disagree issues. Following each issue a brief rationale or supporting statement for each of the respective issues was given (See Appendix A). Order of agree-disagree issues also contained two levels. In one message the agree issues were placed at the first of the statement followed by the disagree issues, and in the other message the disagree issues were presented initially

followed by the agree issues. Source credibility was manipulated by attributing the message to a high credible source, to a low credible source, or to an unidentified source. The final independent variable considered was time. The time one measure was taken immediately after exposure to the message, and the time two measure was taken approximately two weeks after exposure to the message.

Receiver agreement, the number of disagree issues recalled, and the quality of disagree issues recalled were the dependent variables of interest to this study. Agreement with the message was measured by means of five bi-polar semantic differential type scales which are a modification of those used by McCroskey, Young, and Scott (1972). The five bi-polar scales used were: Strongly agree-Strongly disagree, Right-Wrong, Positive-Negative, Good-Bad, and Wise-Foolish. The number of disagree issues recalled was simply the sum of disagreeable issues recalled, either equivocated disagree issues or clearly stated disagree issues depending on which condition the subject received. Since there were three disagree issues in each message, a score on this recall index ranged from 0 to 3. The other recall measure was the quality with which disagree issues were recalled. As before, this measure was concerned only with the clearly stated or equivocated disagree issues. Each of the disagree issues were measured individually and given a score ranging from 0 to 5. Scores were then summed for each subject, and

since there were three disagree issues per message, the range of the quality of recall index was from 0 to 15 (See Appendix B).

Design

A four factor mixed design with one repeated factor was employed in this study. Message vagueness, order of agree-disagree issues, and source credibility were the fixed factors, and time served as the repeated factor. The effects of these four independent variables were assessed on message agreement, the number of disagree issues recalled, and the quality of disagree issues recalled. Each dependent variable was analyzed independently (See Illustration 1 for a layout of the design).

Procedures

Pre-tests

Ninety-seven undergraduate students enrolled in the fundamental speech communication course at the University of Oklahoma served as subjects in a series of pre-tests administered in the spring semester of 1974. The pre-tests sought to determine: (1) the salience of several contemporary topics, (2) agreement and disagreement with issues related to those topics, (3) clear versus vague encodings of disagree issues, and (4) high and low credible sources.

Of the five contemporary topics tested, "What should be included in a liberal college education?" proved to be

ILLUSTRATION 1
LAYOUT OF DESIGN

			Time 1	Time 2
High Credible Source	Clearly Stated Disagree Message	Clearly Agree- Clearly Disagree Order		
		Clearly Disagree- Clearly Agree Order		
	Equiv. Disagree Message	Clearly Agree- Equiv. Disagree Order		
		Equiv. Disagree- Clearly Agree Order		
Low Credible Source	Clearly Stated Disagree Message	Clearly Agree- Clearly Disagree Order		
		Clearly Disagree- Clearly Agree Order		
	Equiv. Disagree Message	Clearly Agree- Equiv. Disagree Order		
		Equiv. Disagree- Clearly Agree Order		
Unidentified Source	Clearly Stated Disagree Message	Clearly Agree- Clearly Disagree Order		
		Clearly Disagree- Clearly Agree Order		
	Equiv. Disagree Message	Clearly Agree- Equiv. Disagree Order		
		Equiv. Disagree- Clearly Agree Order		

the most salient (See Appendix C). Individual measures of six issues regarding what should be included in a liberal college education revealed that subjects strongly agreed that social sciences courses should be included, with ethnic studies courses and mathematics courses receiving neutral to moderately high agreement. Subjects were found to uniformly disagree that foreign language courses, A to F grading, and a strict schedule of required courses are needed for a liberal college education. Using terms from Hiller's (1968) dictionary of vague expressions, these three disagree issues were equivocated, and all three were found to be significantly more agreeable than the clearly stated disagree issues. It was also found that subjects did not perceive the equivocated issues as being significantly more vague than the clearly stated issues (See Appendix D). The final item pre-tested was source credibility. Of the eight sources tested, the results indicated that with regard to the liberal education topic, Paul Sharp was viewed as a high credible source and Curtis Harris was seen as a low credible source (See Appendix E).

Experimental Procedures

Employing the information gained from the pre-tests, the actual experiment was conducted in the summer session of 1974 with students enrolled in speech classes at the University of Oklahoma. Ten speech sections were used. Six sec-

tions were freshman level speech classes, three were sophomore level speech classes, and one was a senior level speech class. Of the 155 subjects which were drawn from these sections, 128 completed all phases of the experiment and provided the data for analysis.

The study was presented in two parts. At the first session, one of fourteen different booklets was randomly distributed to the subjects. Twelve of the booklets contained: (1) an introduction to the study which was posed as a student survey on what should be included in a liberal college education, (2) the identification of a high credible source (Paul Sharp), low credible source (Curtis Harris), or unidentified source which was attributed to the message, followed by a brief statement about the source, and (3) the message where disagree issues were clearly stated or equivocated and where the order of the issues was agree-disagree or disagree-agree (See Appendix F). After allowing approximately five minutes for the subjects to read through the booklet and to become familiar with the message, all booklets were collected. Sheets containing the dependent variables were then distributed and subjects were asked to: (1) indicate on the agreement scale their feelings about the message they just read and (2) to recall as many of the issues in as much detail as possible (See Appendix G).

In addition to these experimental conditions, two booklets designed as a manipulation check were also randomly

distributed to subjects. While each booklet asked the subjects to evaluate the credibility of Paul Sharp and Curtis Harris on the topic of what should be included in a liberal college education, one booklet asked subjects to individually evaluate each of the clearly stated agree issues and clearly stated disagree issues, and the other booklet asked subjects to individually evaluate the three clearly stated agree issues and the three equivocated disagree issues (See Appendix H).

The second session commenced approximately two weeks later. (All subjects completed the second part of the study either thirteen or fourteen days after the initial testing.) At this time all subjects were again asked to fill out the agreement measure and to recall the issues presented in the message on what should be included in a liberal college education (See Appendix I).

Data Analysis

The data were analyzed using an analysis of variance with three independent and one repeated factor. To achieve equal cell size, subjects were randomly removed from experimental conditions until there were nine subjects per cell, thus producing a total N size of 108. (Before removing extra subjects from the various conditions, each of the twelve experimental groups contained a minimum of nine subjects and a maximum of eleven subjects.) Following the calculation of

the fifteen F ratios produced from this mixed design, planned as well as post-hoc individual comparisons were run. Differences were considered significant at the .05 level of significance.

CHAPTER III

RESULTS

In this chapter the results of the manipulation check, the hypothesized findings, and unhypothesized findings are reported.

Manipulation Check

Members of the two check groups responded to source credibility evaluations of Paul Sharp and Curtis Harris as well as evaluated each of the clearly stated and equivocated disagree issues. Results confirmed the assumption that on the topic of what should be included in a liberal college education, Paul Sharp was perceived as being a high credible source and Curtis Harris was perceived as being a low credible source (See Appendix J).

Results also indicated that: (1) the statements contending that social sciences courses, ethnic studies courses, and mathematics courses should be included in a liberal college education were moderately to highly agreeable, (2) "A" to "F" grading, required courses, and foreign language courses were viewed as being disagreeable, (3) the

equivocated statements referring to "A" to "F" grading, required courses, and foreign language courses were more acceptable to the subjects than the clearly stated disagree issues, and (4) the equivocated disagree issues were not perceived as being significantly more vague than the clearly stated disagree issues (See Appendix J). In sum, these findings reveal that the operationalizations for source credibility and message vagueness were successful.

Hypothesized Findings

The results regarding agreement with the message are presented in Table 1 and Table 2. The analysis of variance reveals that there was not a significant interaction between message vagueness and source credibility ($F = 1.600$, $p < .205$); therefore, Hypothesis 1 must be rejected. In like manner, a significant interaction was not found between message vagueness, source credibility, and time ($F = 0.101$, $p < .903$); thus, Hypothesis 2 must also be rejected.

Regarding the number of disagree issues recalled, Hypothesis 3 predicted a significant interaction between message vagueness and time, while Hypothesis 5 predicted a significant interaction between message vagueness, order of agree-disagree issues, and time. A review of Table 3 and Table 4 indicates that the results do not support these hypotheses ($F = 0.438$, $p < .516$, and $F = 2.965$, $p < .084$, respectively); therefore, Hypothesis 3 and Hypothesis 5 must be rejected.

The final dependent variable to be analyzed was the quality of recall of disagree issues. So as to insure an objective measure of the quality of recall, three judges independently scored each of the clearly stated disagree issues. Inter-judge reliability ranged from .879 to .974 (See Appendix K). Each subject's score for the quality of recall of disagree issues was the most common score produced from the evaluation of the three judges. The mean scores and analysis of variance are presented in Table 5 and Table 6. These findings indicate that there was not a significant interaction between message vagueness and time ($F = 1.215$, $p < .272$), and that message vagueness, order of agree-disagree issues, and time did not produce a significant interaction ($F = 1.675$, $p < .196$); therefore, Hypothesis 4 and Hypothesis 6 must be rejected.

Unhypothesized Findings

While the results confirmed none of the hypothesized findings, there were several significant findings produced from this study. In terms of agreement there was a significant main effect for source credibility ($F = 4.983$, $p < .009$), with a mean of 21.750 for the high credible source, 17.055 for the low credible source, and 20.819 for the unidentified source. Tukey's HSD test revealed significant differences between the high credible source and low credible source ($HSD = 4.216$, $p < .05$) and between the unidentified source and low credible source ($HSD = 3.380$, $p < .05$). In addition it

was found that the message containing clearly stated disagree issues was significantly more disagreeable than the message containing equivocated issues ($F= 14.732$, $p< .0005$).

Table 4 reveals that with regard to the number of disagree issues recalled there was a main effect due to time. Significantly more disagree issues were recalled at time one than at time two ($F= 16.859$, $p< .0002$).

Two significant findings are observed in Table 6 where the results concerning the quality of disagree issues recalled are presented. The quality of recall of clearly stated disagree issues was significantly greater than the quality of recall of equivocated disagree issues ($F= 8.974$, $p< .004$), and the quality of recall of disagree issues at time one was significantly greater than at time two ($F= 120.483$, $p< .0001$).

TABLE 1

MEAN SCORES FOR AGREEMENT

			Time 1	Time 2
High Credible Source	Clearly Stated Disagree Message	Clearly Agree- Clearly Disagree Order	16.222	15.888
		Clearly Disagree- Clearly Agree Order	19.444	19.666
	Equiv. Disagree Message	Clearly Agree- Equiv. Disagree Order	29.555	27.333
		Equiv. Disagree- Clearly Agree Order	23.555	22.333
	Clearly Stated Disagree Message	Clearly Agree- Clearly Disagree Order	15.444	18.444
		Clearly Disagree- Clearly Agree Order	14.444	15.333
Low Credible Source	Equiv. Disagree Message	Clearly Agree- Equiv. Disagree Order	18.222	18.666
		Equiv. Disagree- Clearly Agree Order	17.000	18.388
	Clearly Stated Disagree Message	Clearly Agree- Clearly Disagree Order	18.000	18.222
		Clearly Disagree- Clearly Agree Order	17.444	20.333
	Equiv. Disagree Message	Clearly Agree- Equiv. Disagree Order	21.888	23.666
		Equiv. Disagree- Clearly Agree Order	23.666	23.333
Unidentified Source	Clearly Stated Disagree Message	Clearly Agree- Clearly Disagree Order	18.000	18.222
		Clearly Disagree- Clearly Agree Order	17.444	20.333
	Equiv. Disagree Message	Clearly Agree- Equiv. Disagree Order	21.888	23.666
		Equiv. Disagree- Clearly Agree Order	23.666	23.333
	Clearly Stated Disagree Message	Clearly Agree- Clearly Disagree Order	18.000	18.222
		Clearly Disagree- Clearly Agree Order	17.444	20.333

Main Effect	Mean
High Credible Source	21.750
Low Credible Source	17.055
Unidentified Source	20.819
Clearly Stated Disagree Message	17.407
Equivocated Disagree Message	22.342
Agree-Disagree Order	20.129
Disagree-Agree Order	19.620
Time One	19.574
Time Two	20.175

TABLE 2
ANALYSIS OF VARIANCE FOR AGREEMENT

SOURCE	SS	DF	MS	F	P
Between Subjects	11494.190	107			
A (Credibility)	889.750	2	444.875	4.983	0.009*
B (Vagueness)	1315.250	1	1315.250	14.732	0.0005**
C (Order)	14.063	1	14.063	0.157	0.695
AB	285.688	2	142.844	1.600	0.205
AC	43.376	2	21.688	0.243	0.788
BC	84.313	1	84.313	0.944	0.665
ABC	291.062	2	145.531	1.630	0.200
Error (Between)	8570.688	96	89.278		
Within Subjects	1209.462	108			
T (Time)	19.563	1	19.563	1.761	0.184
TA	61.500	2	30.750	2.768	0.066
TB	16.125	1	16.125	1.452	0.229
TC	0.750	1	0.750	0.067	0.791
TAB	2.250	2	1.125	0.101	0.903
TAC	2.876	2	1.438	0.129	0.879
TBC	0.250	1	0.250	0.022	0.876
TABC	39.876	2	19.938	1.795	0.180
Error (Within)	1066.272	96	11.107		
Total	12703.652	215			

*Significant $p < 0.01$

**Significant $p < 0.0005$

TABLE 3

MEAN SCORES FOR THE NUMBER OF
DISAGREE ISSUES RECALLED

			Time 1	Time 2
High Credible Source	Clearly Stated Disagree Message	Clearly Agree- Clearly Disagree Order	2.222	2.000
		Clearly Disagree- Clearly Agree Order	2.333	1.777
	Equiv. Disagree Message	Clearly Agree- Equiv. Disagree Order	1.555	1.333
		Equiv. Disagree- Clearly Agree Order	2.222	1.777
	Clearly Stated Disagree Message	Clearly Agree- Clearly Disagree Order	1.777	1.666
		Clearly Disagree- Clearly Agree Order	2.333	1.888
Low Credible Source	Equiv. Disagree Message	Clearly Agree- Equiv. Disagree Order	1.777	1.444
		Equiv. Disagree- Clearly Agree Order	1.777	1.777
	Clearly Stated Disagree Message	Clearly Agree- Clearly Disagree Order	2.222	2.000
		Clearly Disagree- Clearly Agree Order	2.333	1.888
Unidentified Source	Equiv. Disagree Message	Clearly Agree- Equiv. Disagree Order	2.000	1.555
		Equiv. Disagree- Clearly Agree Order	2.000	2.000
	Clearly Stated Disagree Message	Clearly Agree- Clearly Disagree Order	2.222	2.000
		Clearly Disagree- Clearly Agree Order	2.333	1.888

Main Effect	Mean
High Credible Source	1.902
Low Credible Source	1.805
Unidentified Source	2.000
Clearly Stated Disagree Message	2.037
Equivocated Disagree Message	1.768
Agree-Disagree Order	1.796
Disagree-Agree Order	2.009
Time One	2.046
Time Two	1.759

TABLE 4

ANALYSIS OF VARIANCE FOR THE NUMBER OF
DISAGREE ISSUES RECALLED

SOURCE	SS	DF	MS	F	P
Between Subjects	121.418	107			
A (Credibility)	1.362	2	0.681	0.588	0.563
B (Vagueness)	3.893	1	3.893	3.364	0.066
C (Order)	2.449	1	2.449	2.116	0.145
AB	0.232	2	0.116	0.100	0.904
AC	0.286	2	0.143	0.124	0.883
BC	0.560	1	0.560	0.484	0.505
ABC	1.564	2	0.782	0.676	0.516
Error (Between)	111.072	96	1.157		
Within Subjects	31.509	108			
T (Time)	4.449	1	4.449	16.859	0.0002*
TA	0.176	2	0.088	0.333	0.722
TB	0.116	1	0.116	0.438	0.516
TC	0.042	1	0.042	0.158	0.694
TAB	0.008	2	0.004	0.017	0.984
TAC	0.360	2	0.180	0.684	0.512
TBC	0.782	1	0.782	2.965	0.084
TABC	0.232	2	0.116	0.439	0.654
Error (Within)	25.344	96	0.264		
Total	152.927	215			

*Significant $p < 0.001$

TABLE 5

MEAN SCORES FOR THE QUALITY OF
DISAGREE ISSUES RECALLED

			Time 1	Time 2
High Credible Source	Clearly Stated Disagree Message	Clearly Agree- Clearly Disagree Order	6.333	3.888
		Clearly Disagree- Clearly Agree Order	6.000	3.555
	Equiv. Disagree Message	Clearly Agree- Equiv. Disagree Order	4.000	2.111
		Equiv. Disagree- Clearly Agree Order	4.888	2.888
	Clearly Stated Disagree Message	Clearly Agree- Clearly Disagree Order	5.555	3.666
		Clearly Disagree- Clearly Agree Order	6.000	3.555
Low Credible Source	Equiv. Disagree Message	Clearly Agree- Equiv. Disagree Order	4.111	2.111
		Equiv. Disagree- Clearly Agree Order	4.555	3.111
	Clearly Stated Disagree Message	Clearly Agree- Clearly Disagree Order	5.555	4.000
		Clearly Disagree- Clearly Agree Order	6.777	3.555
	Equiv. Disagree Message	Clearly Agree- Equiv. Disagree Order	4.555	2.333
		Equiv. Disagree- Clearly Agree Order	4.888	3.000
Unidentified Source	Clearly Stated Disagree Message	Clearly Agree- Clearly Disagree Order	5.555	4.000
		Clearly Disagree- Clearly Agree Order	6.777	3.555
	Equiv. Disagree Message	Clearly Agree- Equiv. Disagree Order	4.555	2.333
		Equiv. Disagree- Clearly Agree Order	4.888	3.000
	Clearly Stated Disagree Message	Clearly Agree- Clearly Disagree Order	5.555	4.000
		Clearly Disagree- Clearly Agree Order	6.777	3.555

Main Effect	Mean
High Credible Source	4.208
Low Credible Source	4.083
Unidentified Source	4.333
Clearly Stated Disagree Message	4.870
Equivocated Disagree Message	3.546
Agree-Disagree Order	4.018
Disagree-Agree Order	4.398
Time One	5.268
Time Two	3.148

TABLE 6

ANALYSIS OF VARIANCE FOR THE QUALITY OF
DISAGREE ISSUES RECALLED

SOURCE	SS	DF	MS	F	P
Between Subjects	1126.147	107			
A (Credibility)	2.250	2	1.125	0.107	0.899
B (Vagueness)	94.671	1	94.671	8.974	0.004*
C (Order)	7.782	1	7.782	0.738	0.603
AB	0.620	2	0.310	0.030	0.972
AC	0.454	2	0.227	0.021	0.979
BC	5.042	1	5.042	0.478	0.502
ABC	2.528	2	1.264	0.120	0.887
Error (Between)	1012.800	96	10.550		
Within Subjects	447.494	108			
T (Time)	242.782	1	242.782	120.483	0.0001**
TA	0.842	2	0.421	0.209	0.814
TB	2.449	1	2.449	1.215	0.272
TC	0.782	1	0.782	0.388	0.542
TAB	0.062	2	0.031	0.015	0.986
TAC	1.232	2	0.616	0.306	0.742
TBC	3.375	1	3.375	1.675	0.196
TABC	2.530	2	1.265	0.628	0.540
Error (Within)	193.440	96	2.015		
Total	1573.641	215			

*Significant $p < 0.01$ **Significant $p < 0.0001$

CHAPTER IV

DISCUSSION AND SUMMARY

Interpretations of the results are offered in this chapter. Agreement with clearly stated or equivocated disagree messages is discussed first, followed by an analysis of the findings concerning recall and the relationship between agreement and recall. The section dealing with agreement and the section dealing with recall are subdivided into three main areas of discussion. First, each dependent variable is considered in terms of the hypothesized results. Second, observed significant findings other than hypothesized results are discussed. Finally, a variety of speculative interpretations are offered. This speculation is based on statistically nonsignificant results and deals primarily with potential interaction effects. Since this study was initially designed as an exploratory effort, one of its main functions was to discuss trends between the various independent and dependent variables selected for study; therefore, this last consideration is very important. Here only the most relevant systematic tendencies suggested by the data are

explored. The chapter concludes by providing some directions for future research and a summary of the entire study.

Agreement

Two of the hypotheses tested in this study were concerned with agreement:

- H1: There will be a significant interaction between the degree of message vagueness and source credibility when message agreement is measured.
- H2: There will be a significant interaction between the degree of message vagueness, source credibility, and time when message agreement is measured.

While there was some indication of a message by source interaction ($F = 1.600, p < .205$), there was virtually no evidence to support the message by source by time interaction ($F = 0.101, p < .903$). In a design as complex as the one used in this study the best explanation for these nonsignificant hypotheses, assuming that the experimental procedure and operationalizations were sound, seems to be that there are other factors which may be operating. In the following paragraphs we will look beyond the hypothesized findings in an effort to discover these other factors.

In Chapter I the persuasion literature was reconceptualized in terms of the nature of the message and how the receiver processes information. Three types of messages were considered: (1) a clearly stated message which is moderately to highly discrepant with the receiver's existing concepts, (2) a clearly stated message which is neutral or slightly discrepant with the receiver's existing concepts,

and (3) a vague message which does not clearly identify with the receiver's concepts. Each of these types of messages tends to produce different kinds of agreement responses. In keeping with this persuasion literature, many of the results in this study, even though unhypothesized, support the findings of previous research.

The message containing clearly stated disagree issues attributed to an unidentified source produced only neutral agreement ($\bar{X}$ = 20.819), while the high credible source generated slightly more agreement ($\bar{X}$ = 21.750), and the low credible source tended to reduce agreement with the message ($\bar{X}$ = 17.055). The significant main effect for source credibility (F = 4.983, p < .009) is not surprising and confirms prior research which says a high credible source is more persuasive than a low credible source. It would appear that high source credibility tends to facilitate the assimilation process while low source credibility encourages disagreement and even contrast effects.

In addition to the finding that credibility effects agreement, there was a significant main effect for message vagueness (F = 14.732, p < .0005) which suggests that clearly stated disagree issues are rejected by the person hearing the message. This rejection effect is observed regardless of the credibility of the source. With equivocated disagree issues, however, the receiver is more favorably disposed toward the message. It seems that the equivocated message

is more acceptable since it allows more flexibility in interpreting the speaker's meaning, even though the speaker's true feelings might not be completely understood by the receiver. It would appear that while the equivocated message falls within the receiver's latitude of noncommitment or latitude of acceptance, clearly stated disagree issues probably fall in his latitude of rejection. One message is tolerated or even accepted while the other is disruptive and rejected. In terms of agreement, then, these findings suggest that the speaker would be well advised to equivocate disagree issues instead of clearly stating them.

In light of the significant findings for message vagueness and since neither of the interaction hypotheses for agreement were significant, we must conclude that in terms of the significance level chosen for this study, the main effects for source credibility and message vagueness are the most meaningful claims we can make about equivocation. There is some indication, however, that even though these main effects are meaningful, certain nonsignificant interactions might also be worth consideration. For example, there is a strong tendency toward a source by time interaction ($F = 2.768$, $p < .066$). A sleeper effect seems to be operating since the mean scores for the low credibility condition are 16.277 at time one and 17.833 at time two, while the means for the high credibility condition are 22.194 at time one and 21.305 at time two. These findings

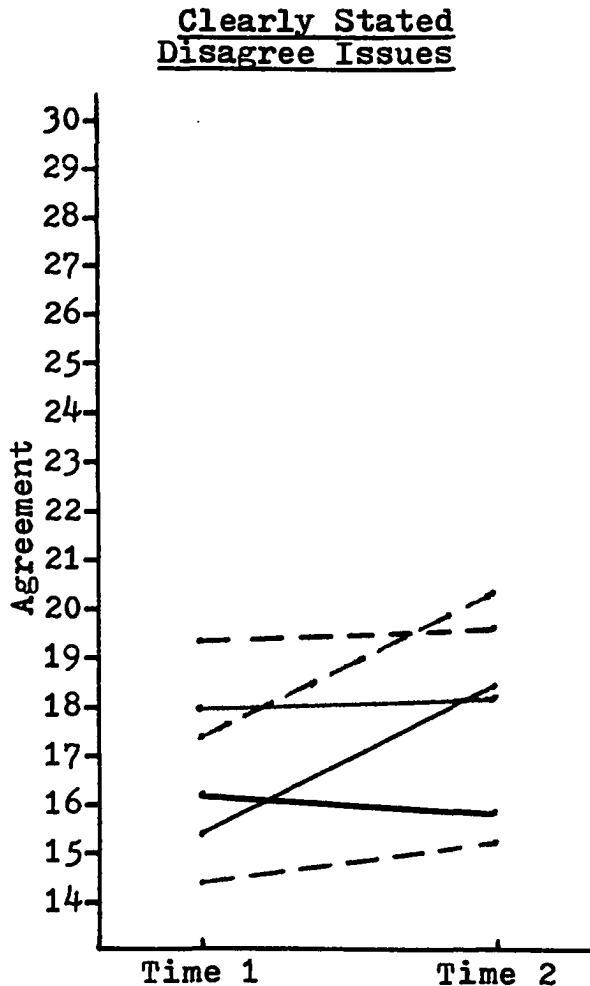
tend to indicate that the message of a low credible source is more agreeable at time two than at time one while agreement with the message of a high credible source diminishes over time.

In addition to the nonsignificant source by time interaction and the source by message interaction tested by Hypothesis 1, there are other interaction tendencies between source credibility, message vagueness, and order of agree-disagree issues ($F = 1.630$, $p < .200$) and between source credibility, message vagueness, order of agree-disagree issues, and time ($F = 1.795$, $p < .180$). Some interesting theoretical implications emerge from a more detailed analysis of these nonsignificant interactions, and the discussion which follows considers the possibility of an interaction between all four of the independent variables investigated in this study. It should be realized that this discussion is primarily speculative, depending solely on the observation of mean scores generated from a nonsignificant interaction; however, such an endeavor might possibly lead to a more insightful understanding of equivocation.

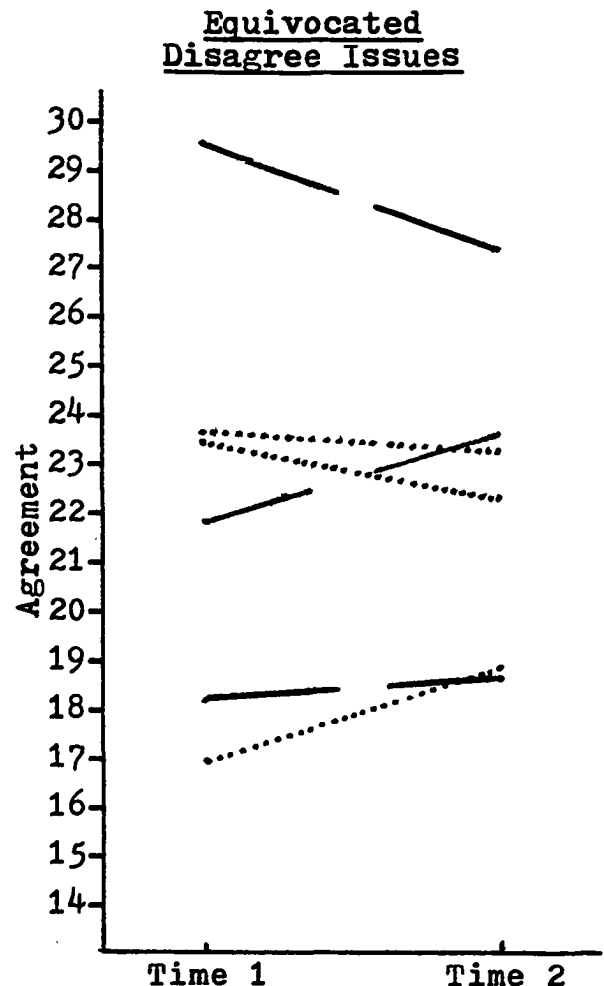
The interpretation of an interaction is often difficult, and as the number of variables increases the task becomes more complex. Illustration 2 was designed to clarify the nature of a potentially significant interaction between source credibility, message vagueness, order of agree-disagree issues, and time. Consider first the conse-

ILLUSTRATION 2

ILLUSTRATION OF INTERACTION BETWEEN
SOURCE CREDIBILITY, MESSAGE VAGUENESS,
ORDER OF AGREE-DISAGREE ISSUES, AND
TIME WITH AGREEMENT AS THE DEPENDENT VARIABLE



High Cred., A-D —————
High Cred., D-A - - - - -
No Cred., A-D —————
No Cred., D-A - - - - -
Low Cred., A-D —————
Low Cred., D-A - - - - -



High Cred., A-D —————
High Cred., D-A
No Cred., A-D —————
No Cred., D-A
Low Cred., A-D —————
Low Cred., D-A

quences of addressing disagree issues clearly. The graph reveals that regardless of source credibility, the order of agree-disagree issues, and time, very little agreement is achieved. (A mean score of "20" on the agreement scale was the neutral score.) It also indicates that even though agreement is minimal, a low credible source should use an agree-disagree order since this produces more agreement at time one and even more at time two. In other words, there is a tendency for a sleeper effect to occur; however, when a low credible source uses a disagree-agree order there is very little change at time two, and the sleeper effect is seemingly disrupted. In contrast, the most desirable outcome is different for an unidentified source clearly stating disagree issues. Here the agree-disagree order does not appear to effect agreement at time one, but the disagree-agree order produces more agreement at time two. A similar pattern occurs for a high credible source. At both time one and time two the disagree-agree order is more effective than the agree-disagree order. These results suggest that if disagree issues are clearly stated there is a tendency for a recency effect for a high credible source and an unidentified source but a primacy effect for a low credible source. It would appear that the information processor initially accepts a high credible source, possibly paying less attention to the issues presented first, with the latter comments making a more lasting impression. A low credible source, however,

does not have the immediate approval of the audience and by addressing disagree issues first only confirms anticipated differences. Such an initial impression can dominate the receiver's processing of the entire message and may even effect future agreement. By addressing agree issues first, however, there is less of a tendency for strong disagreement and the chances of a sleeper effect are increased.

Illustration 2 also presents the mean shifts for the message where disagree issues were equivocated. It reveals that a source, despite his credibility, always does better when disagree issues are equivocated. The very best circumstance is a high credible source using an agree-disagree order ($\bar{X} = 29.555$). Strong agreement is attained at time one as well as at time two. A similar pattern occurs for the low credible source, where agree-disagree order is more effective at time one but at time two there appears to be little difference due to order. In contrast, the unidentified source produces more agreement at time one with the disagree-agree order than with the agree-disagree order, with minimal differences between the two orders at time two. These mean patterns suggest that when disagree issues are equivocated there is a tendency for a primacy effect for both a high credible source and a low credible source but a recency effect for an unidentified source. It would appear that by addressing agreeable issues first a favorable context is created for accepting the equivocated disagree issues.

These results differ from those where disagree issues are clearly stated. Perhaps the best explanation for these differences is that the receiver processes disagreeable information and agreeable information in different ways. In the situation where disagreeable issues are clearly stated, and depending on the credibility of the source as well as the arrangement of the issues, it might be that a particular processing pattern is cued. Under different circumstances where disagree issues are equivocated, another system might be set into action. As mentioned earlier, these speculations are highly tenuous, and the results produced from the four way interaction may be occurring merely by chance; however, they raise interesting possibilities concerning human information processing and agreement with different kinds of messages which should be explored in more detail.

Recall

In addition to agreement, the number of disagree issues recalled and the quality of disagree issues recalled were of interest to this study. Four hypotheses concerned with these two types of recall were tested:

- H3: There will be a significant interaction between the degree of message vagueness and time when amount of recall is measured.
- H4: There will be a significant interaction between the degree of message vagueness and time when quality of recall is measured.
- H5: There will be a significant interaction between the degree of message vagueness, message order, and time when amount of recall is measured.

H6: There will be a significant interaction between the degree of message vagueness, message order, and time when quality of recall is measured.

Hypothesis 3 ($F = 0.438$, $p < .516$) and Hypothesis 4 ($F = 1.215$, $p < .272$) dealt with the interaction between message vagueness and time. While Hypothesis 4 might possibly be indicating a potentially significant interaction effect, Hypothesis 3 does not even approach statistical significance. In contrast, the message by order by time interactions posed in Hypothesis 5 ($F = 2.965$, $p < .084$) and Hypothesis 6 ($F = 1.675$, $p < .196$) showed more of a tendency toward significance for both the number and quality of disagree issues recalled, with this combination of variables appearing to be the most meaningful interaction in each of the recall measures. Before considering these nonsignificant interactions in more detail, however, there are several main effects which should be considered first.

As a rule, the significant results produced from the two recall measures parallel each other very closely. For both the number and quality of disagree issues recalled there was a highly significant main effect for time ($F = 16.859$, $p < .0002$, and $F = 120.483$, $p < .0001$, respectively). Both findings support previous research. Over time information tends to be forgotten, not necessarily because of the passing of time but primarily due to the interference of new material. In addition, the quality of recall measure indicated a significant main effect due to message vagueness ($F = 8.978$, $p < .004$).

The mean scores suggest that clearly stated disagree issues are recalled better than equivocated disagree issues. This finding supports the notion that equivocated disagree issues do not provide as meaningful a cue for recall as do clearly stated disagree issues; thus, there is a tendency for equivocated issues to be forgotten more quickly or distorted by the information processor.

There are several other results with regard to recall which should be considered even though they were not significant. For the number of disagree issues recalled there was a strong tendency for a message vagueness main effect ($F=3.364$, $p<.066$). This result parallels the significant quality of recall finding for message vagueness and suggests that more clearly stated disagree issues are recalled than equivocated disagree issues. In addition, there was a nonsignificant main effect which implies that more disagree issues may be recalled if they are presented first rather than if they are presented after agree issues ($F=2.116$, $p<.145$); however, there was no indication that the order of agree-disagree issues had any effect on the quality of disagree issues recalled ($F=0.738$, $p<.603$). Finally, a nonsignificant main effect was found for source credibility both for the number of issues recalled ($F=0.588$, $p<.563$) and the quality of recall ($F=0.107$, $p<.899$). These last two results are not surprising, however, since they concur with prior research which indicates that the source of a

message generally has little to no effect on recall.

In addition to these nonsignificant main effects there were several interaction effects which were not significant but which suggest some interesting tendencies. As mentioned previously in the discussion of Hypothesis 5 where the number of disagree issues was the dependent variable, there was an indication of a potential interaction between message vagueness, order of agree-disagree issues, and time ($F = 2.965$, $p < .084$). Disagree issues were more readily recalled if they were presented first, and this trend was observed for both the clearly stated and equivocated conditions. A further analysis of the means also reveals that the poorest recall occurred when disagree issues were equivocated, an agree-disagree order was used, and measurement was at time two ($\bar{X} = 1.444$). In contrast, the best recall occurred in the clearly stated condition at time one where the disagree-agree order was used ($\bar{X} = 2.333$). The message by order by time interaction with the quality of recall of disagree issues as the dependent variable also proved to be nonsignificant ($F = 1.675$, $p < .196$); however, it too showed the same trend as the number of disagree issues recalled. The poorest quality of recall occurred in the equivocated message, agree-disagree order, time two condition ($\bar{X} = 2.185$), and the best quality of recall occurred in the clearly stated message, disagree-agree order, time one condition ($\bar{X} = 6.259$).

These nonsignificant tendencies suggest that the recall of disagree issues might be dependent on something more than message vagueness. Perhaps the order of agree-disagree issues as well as time must also be considered if we are to fully understand the recall of disagree issues. It would appear that a clearly stated message where disagree issues are presented first provides an easier tag for immediate recall than an equivocated message which is vague and imprecise. Since equivocated messages do not tend to facilitate recall, the speaker might not have to be as concerned about creating long-term memory cues in the receiver which could retard future persuasion. Overall it would seem that in terms of the number and quality of disagree issues recalled, equivocating the disagreeable information and presenting it in the latter part of the message should inhibit subsequent recall.

Relationship Between Agreement and Recall

A review of the analysis of variance tables and mean scores for the agreement and recall measures tends to indicate that each of these dependent variables are influenced by message vagueness. With agreement the equivocation of disagree issues produced significantly more overall agreement, and with recall significantly more forgetting occurred when the disagree issues were equivocated. Agreement and recall, however, were not equally effected by all of the independent variables investigated in this study. Source credibility

had much more of an influence on agreement than it had on recall. This finding is not surprising since prior research demonstrates that recall is rarely improved or weakened due to the credibility of the source. In contrast, the time variable seemed to have a greater effect on recall than on agreement. More specifically, the quality of recall seemed to vary more over time than did agreement.

These findings lead us to a provocative yet crucial question with regard to equivocation: Over time, is agreement with the message dependent on the recall of the contents which produced it? That is, is the decay of an attitude a function of the decay of the information which created it, or is it a separate and independent process? Watts and McGuire (1964) have produced evidence to indicate that as time passes, induced opinion change and recall become more autonomous. The present study tends to indicate a similar phenomenon. There was very little change over the two week interval for agreement, but there was a significant decline between time one and time two for the quality of recall. This might be an indication that the attitudes we hold are not simply a function of the information producing them. Perhaps we use attitudes as a higher level organization mechanism which allows us to process and categorize large amounts of information but retain only a portion of the original input. Organization theorists in their study of word list recall have indicated that man follows a pattern

of coding, recoding, and assimilating in an effort to understand and cope with his environment, and it appears that we use our attitudes to carry out a similar function. Instead of trying to retain and understand the details of a message from a very logical perspective, our attitudes allow us immediate evaluation. Our experiences are tagged as "right-wrong," "good-bad," or "liked-disliked," and the message is processed just enough to determine how we feel about the topic under consideration. As a result, our cue for recall is the attitude we have created instead of the message content. Unlike the laborious task of generating an organizational hierarchy for recalling the message itself, attitude recall is much more parsimonious and effort saving.

This speculation has some important implications for the rhetorical use of equivocation. It would indicate that in terms of eliciting a favorable response from the audience, a speaker should not become so preoccupied with explicitly disclosing his position that he overlooks the disposition it might create in the receiver. If the speaker knows that certain issues are disagreeable and if he feels that the circumstances seriously limit the probability of successful persuasion, then equivocation appears to be the best alternative available. It provides the speaker with an effective means for avoiding premature exposure of his innermost feelings, it leaves the receiver with a neutral to moderately favorable disposition, it minimizes the chances of recalling

the disagreeable issues, and it avoids negative connotations which might jeopardize future persuasive attempts.

Directions for Future Research

While the results of this study have provided more insight into the nature of equivocation, an exploratory effort such as this one leaves us with far more questions than answers. Perhaps the most pressing need at the moment is a series of replications employing certain experimental variations in an effort to verify or modify the findings of this study. If a more complex message containing twice as many agreeable and disagreeable issues was used, the interaction effects originally anticipated or tending to approach significance might indeed prove to be significant. The messages used in the present study did not seriously challenge the memory capacity of the subjects, but a detailed and longer message might tax their memory more.

The order in which agree-disagree issues are presented also needs reconsideration. While there was a tendency for the agree-disagree order to be more agreeable and to reduce the number and quality of equivocated issues recalled, perhaps a more complex arrangement such as agree-disagree-agree or alternating agree and disagree issues would produce a more desirable effect. It might be far too simplistic to think in terms of an agree-disagree or disagree-agree order.

The time variable also needs to be investigated in more detail. This study limited itself to a two week interval;

however, it would be interesting to find out how agreement and recall vary over a four, six, or even eight week time period. The results would help clarify the issue of whether agreement is autonomous of recall or whether there initially is a relationship between agreement and recall which dissolves over time. The agreement-recall relationship might be the most enlightening and profitable direction of research for those interested in equivocation. If we better understood how the recall of message content effects attitudes over time or how the recall of prior attitudes effects present attitudes it would provide valuable and useful information in terms of assessing the effectiveness of equivocation.

While this study was concerned more with investigating the effects of equivocation than the philosophical nature of the concept, more research needs to be done to clarify more completely exactly what makes a word or phrase vague. Hiller's (1968) dictionary of vague expressions is a good beginning, but the operationalization of vagueness still needs more clarification. In a similar vein, it would be profitable to find out why the receiver of an equivocated message does or does not perceive it to be vague or why some persons respond favorably to equivocation while others resist it. Certain personality types, such as a High Machiavellian, might be more perceptive to the manipulation of equivocated messages and persuasive techniques. The study of equivocation in relation to personality traits

might possibly produce a completely new dimension of understanding about the effects of equivocation.

Unanswered questions regarding the processing of agreeable and disagreeable messages is another area of research which needs additional consideration, and more needs to be known about the cues the information processor stores for subsequent recall. This study offers some evidence to indicate that equivocated disagree messages are more difficult to recall than clearly stated disagree messages, but additional dependent variables such as the degree of distortion and number of different themes generated from clearly stated and equivocated statements would also be helpful in better understanding the effects of equivocation. In addition, the recall of oral versus written equivocated messages might also produce interesting differences.

Equivocation research is a relatively new area of interest; therefore, research possibilities are numerous. With additional experimentation and study, however, we should approach a level of understanding which will allow us to better explain as well as predict the antecedent and consequent effects of equivocation. Such findings should make a meaningful contribution to social science research and the body of knowledge concerned with understanding human communication behavior.

Summary

This exploratory study investigated the effects of deliberate vagueness, order of agree-disagree issues, source credibility, and time on receiver agreement and recall. One hundred and eight (108) undergraduate subjects were randomly assigned to conditions in a four factor mixed design with one repeated factor. Deliberate vagueness was defined as a message which clearly addressed disagree issues or equivocated disagree issues. Order of agree-disagree issues was defined as the presentation of three agree issues in the first part of the message followed by three disagree issues, or vice versa. Source credibility was defined as high, low, or unidentified. The time variable was defined as measurement immediately after exposure to the message and two weeks later.

The results indicated that with regard to agreement there was a significant main effect due to credibility (with the high credible source evoking more agreement) and message vagueness (with the equivocated disagree message producing more agreement). A strong tendency toward a time by source interaction was also detected, indicating a potential "sleeper effect." For the number and quality of disagree issues recalled there was a significant main effect for time (with more recall at time one), and a significant main effect for message vagueness was also found for the quality of disagree issues recalled (where clearly stated disagree

issues were recalled better than equivocated disagree issues). In addition there were indications, even though they were not significant, of a message by order by source by time interaction for agreement (with the equivocated disagree message, agree-disagree order, high credible source, time one condition producing the greatest agreement and the clearly stated disagree message, disagree-agree order, low credible source, time one condition producing the least agreement), and a message by order by time interaction for both the number and quality of disagree issues recalled (with the clearly stated disagree message, disagree-agree order, time one condition producing the best recall and the equivocated disagree message, agree-disagree order, time two condition producing the poorest recall).

It was concluded that since equivocated disagree issues are more agreeable than clearly stated disagree issues and since they do not provide as strong a cue for recall, the speaker who knows his audience disagrees with him on certain issues would be well advised to use deliberate vagueness. The audience maintains a neutral to moderately favorable disposition, and when the equivocated topic is addressed at a later date the speaker does not have to be as concerned about the recall of disagreeable issues. Furthermore, it was concluded that this rhetorical technique should be viewed more as a stalling strategy rather than an attitude change strategy. In contrast to the tenet advocated since antiquity

that all issues should always be addressed clearly, this study indicates that under certain circumstances the speaker should use deliberate vagueness.

BIBLIOGRAPHY

Alston, W.P. Philosophy of Language. Englewood Cliffs, New Jersey: Prentice Hall, 1964.

_____. "Vagueness." In P. Edwards (Ed.), The Encyclopedia of Philosophy. Vol. 8. New York: Macmillan, 1967.

Anderson, L.R. "Discrediting Sources as a Means of Belief Defense of Cultural Truisms." American Psychologist, 1966, 21, 708.

Anderson, N.H. "Primacy Effects in Personality Impression Formation Using a Generalized Order Effect Paradigm." Journal of Abnormal and Social Psychology, 1965, 2, 1-9.

Aristotle. Rhetoric. Translated by W.R. Roberts, in Britannica Great Books, Vol. 9. Chicago: Encyclopedia Britannica Inc., 1952.

Aronson, E., J. Turner, and M. Carlsmith. "Communicator Credibility and Communicator Discrepancy as Determinants of Opinion Change." Journal of Abnormal and Social Psychology, 1963, 67, 31-36.

Asch, S.E. Social Psychology. Englewood Cliffs, New Jersey: Prentice Hall, 1952.

Bartlett, F.C. Remembering. Cambridge, England: Cambridge University Press, 1932.

Bauer, R.A. "A Revised Model of Source Effect." Presidential address of the Division of Consumer Psychology, American Psychological Association, Chicago, 1965.

Black, M. "Vagueness: An Exercise in Logical Analysis." Philosophy of Science, 1937, 4, 427-455.

Bochner, S. and C.A. Insko. "Communicator Discrepancy, Source Credibility, and Opinion Change." Journal of Personality and Social Psychology, 1966, 4, 614-621.

- Bower, G.H. "Organization and Memory." Invited address at the Western Psychological Association, San Diego, 1968.
- _____. "A Selective Review of Organizational Factors in Memory." In E. Tulving and W. Donaldson (Eds.), Organization of Memory. New York: Academic Press, 1972.
- Bower, G.H., M.C. Clark, A.M. Lesgold, and D. Winzenz. "Hierarchical Retrieval Schemes in Recall of Categorized Word Lists." Journal of Verbal Learning and Verbal Behavior, 1969, 8, 323-343.
- Broadbent, D.E. In Defense of Empirical Psychology. London: Methuen and Co., Ltd. 1973.
- Campbell, D.T., W.A. Hunt, and N.A. Lewis. "The Effects of Assimilation and Contrast in Judgment of Clinical Materials." American Journal of Psychology, 1957, 70, 297-312.
- Canon, L.K. "Self-Confidence and Selective Exposure to Information." In L. Festinger (Ed.), Conflict, Decision, and Dissonance. Stanford: Stanford University Press, 1964.
- Carter, R.F. "Some Effects of the Debates." In S. Kraus (Ed.), The Great Debates. Bloomington: Indiana University Press, 1962.
- Cohen, A.R. "Communication Discrepancy and Attitude Change: A Dissonance Theory Approach." Journal of Personality, 1959, 27, 386-396.
- Collins, A.M. and M.R. Quillian. "How to Make a Language User." In E. Tulving and W. Donaldson (Eds.), Organization of Memory. New York: Academic Press, 1972.
- Dillehay, R. "Judgmental Processes in Response to a Persuasive Communication." Journal of Personality and Social Psychology, 1965, 1, 631-641.
- Fillmore, C.J. "The Case for Case." In E. Bach and R.T. Harms (Eds.), Universals in Linguistic Theory. New York: Holt, Rinehart, and Winston, 1968.
- _____. "Types of Lexical Information." In F. Kiefer (Ed.), Studies in Syntax and Semantics. Dordrecht, Holland, Reidel, 1969.
- Fine, B.J. "Conclusion-Drawing, Communicator Credibility and Anxiety as Factors in Opinion Change." Journal of

Abnormal and Social Psychology, 1957, 54, 369-374.

Freedman, J.L. "Involvement, Discrepancy and Opinion Change." Journal of Abnormal and Social Psychology, 1964, 69, 290-295.

Gibb, J.D. "An Experimental Study of the Effects of a Subthreshold Prestige Symbol in Information and Persuasive Communication." Unpublished doctoral dissertation, Wayne State University, 1966.

Goss, B. "A Conceptual Partitioning of Verbal Ambiguity." Paper presented at the Western Speech Association Convention, 1971a.

_____. "The Effects of Sentence Context on Ambiguous, Vague, and Clear Nouns." Unpublished doctoral dissertation, Michigan State University, 1971b.

Goss, B. and L. Williams. "The Effects of Equivocation on Perceived Source Credibility." Central States Speech Journal, 1973, 24, 162-167.

Haiman, F.S. "An Experimental Study of the Effects of Ethos in Public Speaking." Speech Monographs, 1949, 16, 190-202.

Helson, H. Adaptation-Level Theory. New York: Harper and Row, 1964.

Hempel, C.G. "Vagueness and Logic." Philosophy of Science, 1939, 6, 163-180.

Hiller, J. "An Experimental Investigation of the Effects of Conceptual Vagueness on Speaking Behavior." Unpublished doctoral dissertation, University of Connecticut, 1968.

Hovland, C.I., O.J. Harvey, and M. Sherif. "Assimilation and Contrast Effects in Communication and Attitude Change." Journal of Abnormal and Social Psychology, 1957, 55, 242-252.

Hovland, C.I., I.L. Janis, and H.H. Kelley. Communication and Persuasion. New Haven: Yale University Press, 1953.

Hovland, C.I. and W. Mandell. "An Experimental Comparison of Conclusion-Drawing by the Communicator and the Audience." Journal of Abnormal and Social Psychology, 1952, 47, 581-588.

- Hovland, C.I. and H.A. Pritzker. "Extent of Opinion Change as a Function of Amount of Change Advocated." Journal of Abnormal and Social Psychology, 1957, 34, 257-261.
- Hovland, C.I. and W. Weiss. "The Influence of Source Credibility on Communication Effectiveness." Public Opinion Quarterly, 1951, 635-650.
- Hufford, R.A. "The Place of Ambiguity in Political Speaking." Unpublished doctoral dissertation, Southern Illinois University, 1962.
- Hughey, J.D. "Credibility and Behavioral Commitment." Paper presented at the Western Speech Association, San Diego, 1969.
- Insko, C.A., F. Murashima, and M. Saiyadian. "Communicator Discrepancy, Stimulus Ambiguity and Influence." Journal of Personality, 1966, 34, 262-274.
- Johnson, H.H. and J.A. Scileppi. "Effects of Ego-Involvement Conditions on Attitude Change to High and Low Credibility Communicators." Journal of Personality and Social Psychology, 1969, 13, 31-36.
- Johnson, H.H., J.M. Torcivia, and M.A. Poprick. "Effects of Source Credibility on the Relationship Between Authoritarianism and Attitude Change." Journal of Personality and Social Psychology, 1968, 9, 179-183.
- Jones, E.E. and H.B. Gerard. Foundations of Social Psychology. New York: Wiley, 1967.
- Jones, E.E. and G.R. Goethals. Order Effects in Impression Formation: Attribution Context and the Nature of the Entity. New York: General Learning Press, 1971.
- Katz, E. and J.J. Feldman. "The Debates in Light of Research: A Survey of Surveys." In S. Kraus (Ed.), The Great Debates. Bloomington: Indiana University Press, 1962.
- Kelman, H.C. "Compliance, Identification, and Internalization: Three Processes of Opinion Change." Journal of Conflict Resolution, 1958, 2, 51-60.
- _____. "Processes of Opinion Change." Public Opinion Quarterly, 1961, 25, 57-78.
- Kelman, H.C. and A.H. Eagley. "Attitude Toward the Communicator, Perception of Communication Content, and Attitude Change." Journal of Personality and Social Psychology, 1965, 1, 63-78.

- Kelman, H.C. and C.I. Hovland. "'Reinstatement' of the Communicator in Delayed Measurement of Opinion Change." Journal of Abnormal and Social Psychology, 1953, 48, 327-335.
- King, T.R. "An Experimental Study of the Effects of Ethos Upon the Immediate and Delayed Recall of Information." Central States Speech Journal, 1966, 17, 22-28.
- Kintsch, W. "Recognition and Free Recall of Organized Lists." Journal of Experimental Psychology, 1968, 78, 481-487.
- _____. "Models for Free Recall and Recognition." In D.A. Norman (Ed.), Models of Memory. New York: Academic Press, 1970.
- _____. "Notes on the Structure of Semantic Memory." In E. Tulving and W. Donaldson (Eds.), Organization of Memory. New York: Academic Press, 1972.
- Lachman, R. and K.R. Laughery. "Is a Test Trial a Training Trial in Free Recall Learning?" Journal of Experimental Psychology, 1968, 76, 40-50.
- Littlejohn, S.W. "A Bibliography of Studies Related to Variables of Source Credibility." In N.A. Shearer (Ed.), Bibliographic Annual in Speech Communication, 1971, 2, 1-40.
- Mandler, G. "Organization and Memory." In K.W. Spence and J.T. Spence (Eds.), The Psychology of Learning and Motivation. Vol. 1. New York: Academic Press, 1967.
- _____. "Organization and Recognition." In E. Tulving and W. Donaldson (Eds.), Organization of Memory. New York: Academic Press, 1972.
- Mandler, G. and P.J. Dean. "Seriation: Development of Serial Order in Free Recall." Journal of Experimental Psychology, 1969, 81, 207-215.
- Mandler, G., Z. Pearlstone, and H.S. Koopmans. "Effects of Organization and Semantic Similarity on Recall and Recognition." Journal of Verbal Learning and Verbal Behavior, 1969, 8, 410-423.
- Manis, M. "The Interpretation of Opinion Statements as a Function of Message Ambiguity and Recipient Attitude." Journal of Abnormal and Social Psychology, 1961a, 63, 76-81.

- _____. "The Interpretation of Opinion Statements as a Function of Recipient Attitudes and Source Prestige." Journal of Abnormal and Social Psychology, 1961b, 63, 82-86.
- _____. Cognitive Processes. Belmont, California: Brooks-Cole Publishing Co., 1966.
- McCroskey, J., T.J. Young, and M.D. Scott. "The Effects of Message Sidedness and Evidence on Inoculation Against Counterpersuasion in Small Group Communication." Speech Monographs, 1972, 39, 205-212.
- McGinnis, J.H. and L.J. Oziel. "Note: Primacy Effects in Impression Formation." Perceptual and Motor Skills, 1970, 30, 393-394.
- McGuire, W.J. "Order of Presentation as a Factor in 'Conditioning' Persuasiveness." In C.I. Hovland (Ed.), Order of Presentation in Persuasion. New Haven: Yale University Press, 1957.
- _____. "Inducing Resistance to Persuasion: Some Contemporary Approaches." In L. Berkowitz (Ed.), Advances in Experimental Social Psychology. Vol. 1. New York: Academic Press, 1964.
- _____. "The Nature of Attitudes and Attitude Change." In G. Lindzey and E. Aronson (Eds.), The Handbook of Social Psychology. Vol. 3. Reading, Massachusetts: Addison-Wesley Publishing Co., 1969.
- Miller, G.A. "The Magic Number Seven, Plus or Minus Two: Some Limits on our Capacity for Processing Information." Psychological Review, 1956, 63, 81-87.
- Mills, J. and A. Ross. "Effects of Commitment and Certainty Upon Interest in Supporting Information." Journal of Abnormal and Social Psychology, 1964, 68, 552-555.
- Mortensen, C.D. and K.K. Sereno. "The Influence of Ego-Involvement and Discrepancy on Perceptions of Communication." Speech Monographs, 1970, 37, 127-134.
- Norman, D.A. Memory and Attention. New York: John Wiley and Sons, 1969.
- Norman, D.A. and D.E. Rumelhart. "A System for Perception and Memory." In D.A. Norman (Ed.), Models of Human Memory. New York: Academic Press, 1970.

- Pace, R.W. and R.R. Boren. The Human Transaction. Glenview, Illinois: Scott, Foresman and Co., 1973.
- Paulson, S.F. "The Effects of the Prestige of the Speaker and Acknowledgment of Opposing Arguments on Audience Retention and Shift in Opinion." Speech Monographs, 1954, 21, 267-271.
- Platt, R.W. "An Experimental Investigation of Common Ground in Oral Communication." Unpublished doctoral dissertation, University of Illinois, 1964.
- Postman, L. "A Pragmatic View of Organization Theory." In E. Tulving and W. Donaldson (Eds.), Organization of Memory. New York: Academic Press, 1972.
- Postman, L., S. Burns, and L. Hasher. "Studies of Learning to Learn: X. Nonspecific Transfer Effects in Free-Recall Learning." Journal of Verbal Learning and Verbal Behavior, 1970, 9, 707-715.
- Quintilian. Institutes of Oratory. Translated by J.S. Watson. London: Henry G. Bohn, 1856.
- Rarick, G. "The Effects of Two Components of Communicator Prestige." Unpublished doctoral dissertation, Stanford University, 1962.
- Roever, J.E. "Understanding Misunderstanding: Toward a Theory of Purposeful Ambiguity." Paper presented at Speech Association of America Convention, 1962.
- Rosenbaum, M.E. and D.E. Franc. "Opinion Change as a Function of External Commitment and Amount of Discrepancy From the Opinion of Another." Journal of Abnormal and Social Psychology, 1960, 61, 15-20.
- Rumelhart, D.E., P.H. Lindsay, and D.A. Norman. "A Process Model for Long-Term Memory." In E. Tulving and W. Donaldson (Eds.), Organization of Memory. New York: Academic Press, 1972.
- Russell, B. "Vagueness." Australasian Journal of Philosophy, 1923, 1, 84-92.
- Samovar, L. "Ambiguity and Unequivocation in the Kennedy-Nixon Television Debates." Quarterly Journal of Speech, 1962, 48, 277-279.
- Scheidel, T.M. Speech Communication and Human Interaction. Glenview, Illinois: Scott, Foresman and Co., 1972.

- Senter, R.J. and G.K. Hauser. "An Experimental Study of a Mnemonic System." Psychonomic Science, 1968, 10, 289-290.
- Sereno, K.K. "Ego-Involvement: A Neglected Variable in Speech Communication Research." Quarterly Journal of Speech, 1969, 55, 69-77.
- Sherif, C. and M. Sherif (Eds.). Attitude, Ego-Involvement and Change. New York: Wiley, 1967.
- Sherif, C., M. Sherif, and R. Nebergall. Attitude and Attitude Change. Philadelphia: Saunders, 1965.
- Sherif, M. The Psychology of Social Norms. New York: Harper and Row, 1936.
- Sherif, M. and C.I. Hovland. Social Judgment. New Haven: Yale University Press, 1961.
- Tannenbaum, P.H. "Mediated Generalization of Attitude Change Via the Principle of Congruity." Journal of Personality and Social Psychology, 1966, 3, 493-499.
- Tannenbaum, P.H. and R.W. Gengel. "Generalization of Attitude Change Through Congruity Principle Relationships." Journal of Personality and Social Psychology, 1966, 3, 299-304.
- Tannenbaum, P.H., J.R. Macaulay, and E.L. Norris. "Principle of Congruity and Reduction of Persuasion." Journal of Personality and Social Psychology, 1966, 3, 233-238.
- Thayer, L. (Ed.). Communication Theory and Research. Springfield, Illinois: Charles C. Thomas, 1967.
- Thomson, D.M. and E. Tulving. "Associative Encoding and Retrieval: Weak and Strong Cues." Journal of Experimental Psychology, 1970, 86, 255-262.
- Tulving, E. "Subjective Organization in Free Recall of 'Unrelated Words'." Psychological Review, 1962, 69, 344-354.
- _____. "Intratrial and Intertrial Retention: Notes Toward a Theory of Free Recall Verbal Learning." Psychological Review, 1964, 71, 210-237.
- Tulving, E. and W. Donaldson (Eds.). Organization of Memory. New York: Academic Press, 1972.

- Tulving, E. and S. Osler. "Effectiveness of Retrieval Cues in Memory for Words." Journal of Experimental Psychology, 1968, 77, 593-601.
- Tulving, E. and J.E. Patkau. "Concurrent Effects of Contextual Constraint and Word Frequency on Immediate Recall and Learning of Verbal Material." Canadian Journal of Psychology, 1962, 16, 83-92.
- Tulving, E. and Z. Pearlstone. "Availability Versus Accessibility on Information in Memory of Words." Journal of Verbal Learning and Verbal Behavior, 1966, 5, 381-391.
- Voss, J.F. "On the Relationship of Associative and Organizational Processes." In E. Tulving and W. Donaldson (Eds.), Organization of Memory. New York: Academic Press, 1972.
- Watts, W.A. "Relative Persistence of Opinion Change Induced by Active Compared to Passive Participation." Journal of Personality and Social Psychology, 1967, 5, 4-15.
- Watts, W.A. and W.J. McGuire. "Persistence of Induced Opinion Change and Retention of Inducing Message Content." Journal of Abnormal and Social Psychology, 1964, 68, 233-241.
- Weiss, W. "Opinion Congruence With a Negative Source on One Issue as a Factor Influencing Agreement on Another Issue." Journal of Abnormal and Social Psychology, 1957, 54, 180-186.
- Weist, R.M. "Optimal Versus Nonoptimal Conditions for Retrieval." Journal of Verbal Learning and Verbal Behavior, 1970, 9, 311-316.
- Wilson, G.B. "Purposeful Ambiguity as a Persuasive Message Strategy." Unpublished doctoral dissertation, Michigan State University, 1971.
- Wittgenstein, L. Philosophical Investigations. Part 1, Sections 65-88. Oxford, England: Oxford University Press, 1953.
- Wood, G. "Mnemonic Systems in Recall." Journal of Educational Psychology, 1967, 58, (6, Pt. 2), 1-27.
- Wood, G. and B.J. Underwood. "Implicit Responses and Conceptual Similarity." Journal of Verbal Learning and Verbal Behavior, 1967, 6, 1-10.

APPENDICES

APPENDIX A

CLEARLY STATED AND EQUIVOCATED ISSUES

Clearly Stated Agree Issues

1. Students need to take social sciences courses such as psychology and sociology. Not only do these types of courses teach us interesting things about ourselves but also they prepare us for involvement in an increasingly complex society. The understanding of who we are and how we function is a prerequisite for coping with and accepting the society we are a part of.
2. If a student is to acquire a truly liberal college education he should be exposed to ethnic studies courses. Black, Chicano, and Indian sub-cultures are an important part of American life, and the study of these ethnic groups should prove enlightening for any student.
3. Studies in mathematics have always played an important role in the curriculum of a university, and students should take at least the beginning courses in algebra or trigonometry during their undergraduate program. The fundamental concepts taught in these courses are principles which may be generalized and applied to many facets of the student's life.

Clearly Stated Disagree Issues

1. All students should be required to take foreign language courses such as French, Spanish, or German. In our world today there is much more international communication than ever before, and it is important that we offer courses in our universities which provide in-depth information about other nations.
2. With no exceptions, students should always be graded on an "A" to "F" grading scale. Student evaluation is an important part of the academic community. It serves many useful functions, the most noticeable being that it provides a means of assessment which enables the student as well as the administration to gauge successful learning.
3. It is absolutely necessary that all students follow a strict schedule of required courses dictated by the administration. A meaningful and useful college education is more than taking courses at random, and students will get the very most out of their college education if they follow the advisement of experienced educators.

Equivocated Disagree Issues

1. On the whole, students should take courses which concentrate on the communication behavior of other countries. In our world today there is much more international communication than ever before, and it is important that we offer courses in our universities which provide in-depth information about other nations.
2. Generally speaking, students should be evaluated by some systematic grading scale. Student evaluation is an important part of the academic community. It serves many useful functions, the most noticeable being that it provides a means of assessment which enables the student as well as the administration to gauge successful learning.
3. Students as a rule should be encouraged to follow a degree program which has been designed by professional educators. A meaningful and useful college education is more than taking courses at random, and students will get the very most out of their college education if they follow the advisement of experienced educators.

APPENDIX B

QUALITY OF RECALL OF DISAGREE ISSUES

Scoring Procedure for Clearly Stated Disagree Issues

The quality of recall score for each of the clearly stated disagree statements was dependent on the subject's ability to recall the issue and the rationale supporting that statement in as much detail as was presented in the original message. Each statement was divided into four distinguishing pieces of information.

1. Foreign Language Courses

- | | |
|-------------|--|
| (Issue) | (1) Foreign language courses, like French, Spanish, or German (at least one example given). |
| | (2) All students should be required to take a foreign language. |
| (Rationale) | (3) There is more international communication in the world today. |
| | (4) Universities should offer courses that provide in-depth information about other nations. |

2. "A" to "F" Grading

- | | |
|-------------|--|
| (Issue) | (1) "A" to "F" grading scale should be used. |
| | (2) With no exceptions, students should always be graded on this basis. |
| (Rationale) | (3) Student evaluation is an important part of the academic community. |
| | (4) This is a means of assessment for the student as well as the administration (at least one is given). |

3. Required Courses

- | | |
|-------------|---|
| (Issue) | (1) Follow a strict schedule of required courses. |
| | (2) It is absolute necessary that the administration dictate this schedule of courses. |
| (Rationale) | (3) A college education is more than taking courses at random. |
| | (4) Must follow the advice of experienced educators to get the most from a college education. |

The recall of each statement was determined to be either sketchy, good, or very good. A sketchy recall was one where only part of one of the two elements within the issue or rationale category was recalled. A good recall was one where one of the two elements within the issue or rationale category was recalled. A very good recall was where both of the two elements within the issue or rationale category was recalled.

After determining if the quality of recall for the issue and rationale was sketchy, good, or very good, one of the following ratings was given to each disagree statement:

- 0 -- Neither the issue nor the rationale was recalled.
- 1 -- A sketchy recall of either the issue or rationale but not both.
- 2 -- A good recall of either the issue or the rationale but not both, or a good recall of the issue or the rationale but only a sketchy recall of the other category.
- 3 -- A good recall of the issue and a good recall of the rationale.
- 4 -- A very good recall of the issue or the rationale but a good recall of the other category.
- 5 -- A very good recall of the issue and a very good recall of the rationale.

Scoring Procedure for Equivocated Disagree Issues

The quality of recall for each of the equivocated disagree statements was determined by employing a method similar to that used for getting the quality of recall for the clearly stated disagree statements. As before, each statement was divided into four distinguishing pieces of information, with the two pieces of information for the rationale remaining the same for the clearly stated and equivocated disagree statements. Recall of the issue, however, was different:

1. Foreign Language Courses
(Issue)
 - (1) Take courses concentrating on the communication behavior in other countries.
 - (2) On the whole, students should take these courses.
2. "A" to "F" Grading
(Issue)
 - (1) Students should be evaluated by some systematic grading scale.
 - (2) Generally speaking, this grading procedure should be used.
3. Required Courses
(Issue)
 - (1) Follow a degree program which has been designed by professional educators.
 - (2) As a rule, students should follow this type of degree program.

As described in the section on scoring clearly stated disagree issues, each statement was determined to be sketchy, good, or very good and given a score ranging from "0" to "5".

APPENDIX C
PRE-TEST OF THE SALIENCE
OF TOPICS
N= 53

Topic	Mean Salience Score ^a
1. Has women's liberation really helped women?	15.61
2. What should be included in a liberal college education?	18.94
3. Should we have an all volunteer army?	17.21
4. Should Oklahoma City have a mass transit system?	16.07
5. Should amnesty be granted to those who dodged the draft or deserted in order to avoid the Vietnam war?	17.88

^aEach topic was evaluated using three semantic differential type scales. The bi-polar adjectives were: Significant-Insignificant, Important-Unimportant, and Relevant-Irrelevant. The possible range of scores for each topic was from "3" to "21" with a score of "21" indicating high salience.

APPENDIX D

PRE-TEST OF AGREE-DISAGREE ISSUES

Group Receiving All Issues Clearly Stated N= 24

Issues ^a	Mean Agreement Score ^b	Mean Vagueness Score ^c
Ethnic Studies Courses	3.96	5.63
Foreign Language Courses	2.79	5.50
Social Sciences Courses	5.79	6.33
Required Courses	2.58	5.88
Mathematics Courses	3.63	5.71
"A" to "F" Grading	2.66	5.75

Group Receiving Clearly Stated and Equivocated Issues N= 24

Issues ^a	Mean Agreement Score ^b	Mean Vagueness Score ^c
Ethnic Studies Courses	4.52	5.08
Foreign Language Courses ^d	4.45	4.88
Social Sciences Courses	5.44	5.84
Required Courses ^d	4.25	5.32
Mathematics Courses	3.80	5.24
"A" to "F" Grading ^d	4.13	4.92

^aThe issues used in the pre-tests were also used in the actual experiment. See Appendix A for the wording of each of the six issues.

^bAgreement with each of the issues was measured by a semantic differential type scale. Strongly agree-Strongly disagree were the bi-polar adjectives, and a score of "7" indicated strong agreement with the issue.

^cEach issue was evaluated on a semantic differential type scale for vagueness. Vague-Specific were the bi-polar adjectives, and a score of "7" indicated the issue was perceived as being stated specifically.

^dEquivocated Issue

t-Tests Between
Clearly Stated Disagree Issues
And Equivocated Disagree Issues

	Agreement	Vagueness
1. Foreign Language Courses -- Clearly Stated Disagree vs. Equivocated Disagree	$\bar{X}$ = 2.79 $\bar{X}$ = 4.45 t = 3.40**	$\bar{X}$ = 5.50 $\bar{X}$ = 4.96 t = 1.16
2. Required Courses -- Clearly Stated Disagree vs. Equivocated Disagree	$\bar{X}$ = 2.58 $\bar{X}$ = 4.25 t = 3.52**	$\bar{X}$ = 5.88 $\bar{X}$ = 5.38 t = 1.25
3. "A" to "F" Grading -- Clearly Stated Disagree vs. Equivocated Disagree	$\bar{X}$ = 2.66 $\bar{X}$ = 4.13 t = 3.00**	$\bar{X}$ = 5.75 $\bar{X}$ = 5.04 t = 1.65
4. Sum of the Disagree Issues -- Three Clearly Stated Disagree Issues vs. Three Equivocated Disagree Issues	$\bar{X}$ = 8.04 $\bar{X}$ = 12.79 t = 5.35**	$\bar{X}$ = 17.37 $\bar{X}$ = 15.25 t = 2.61*

*Significant $p < .05$ (2.01 with $df=46$ for a 2 tail test)

**Significant $p < .01$ (2.68 with $df=46$ for a 2 tail test)

APPENDIX E

PRE-TEST OF SOURCE CREDIBILITY N= 53

Source	Mean Competence Score ^a	Mean Character Score ^b
David Hall	13.87	12.24
Ralph Nader	16.67	16.10
Paul Sharp	18.20	16.43
Richard Nixon	14.70	11.56
Curtis Harris	11.87	11.30
E.K. Gaylord	14.24	12.72

^aThree semantic differential type scales were used to measure competence: Intelligent-Unintelligent, Qualified-Unqualified, and Competent-Incompetent. The possible range for the competence score was from "3" to "21" with a score of "21" indicating a high competence rating.

^bThree semantic differential type scales were used to measure character: Good-Bad, Reliable-Unreliable, and Just-Unjust. The possible range for the character score was from "3" to "21" with a score of "21" indicating a high character rating.

APPENDIX F

TREATMENT CONDITIONS

Introduction and High Credible Source Condition

Recently a variety of individuals in the state of Oklahoma were surveyed and asked to respond to the question: "What do you think should be included in a liberal college education?" Those surveyed were asked to make a formal statement expressing their personal beliefs on this subject.

The statement you will read was made by Dr. Paul Sharp, president of the University of Oklahoma. Dr. Sharp has 17 years of experience as the head of college or university administration, serving as president of the University of North Carolina and Drake University before coming to O.U. He is a member of Phi Beta Kappa as well as the Harvard Institute of College Presidents and is a highly recognized lecturer, making presentations to such internationally renowned institutions as the University of Melbourne and the University of Sydney in Australia. In addition, Dr. Sharp is the author of several books and has written numerous articles and reviews for scholarly journals.

Introduction and Low Credible Source Condition

Recently a variety of individuals in the state of Oklahoma were surveyed and asked to respond to the question: "What do you think should be included in a liberal college education?" Those surveyed were asked to make a formal statement expressing their personal beliefs on this subject.

The statement you will read was made by Curtis Harris, district attorney for Oklahoma County. Mr. Harris is known for his very conservative view of law and order, and in the last several years he has carried out a campaign to ban all forms of pornography in Oklahoma. He has gone so far as to try and make the selling of Playboy magazine a criminal offense. In addition, he contends that all first offenders found guilty of smoking marijuana should receive the maximum punishment, without exception. It should also be added that Mr. Harris has had very limited exposure to academic affairs or student activities on the university campus.

Introduction and Unidentified Source Condition

Recently a variety of individuals in the state of Oklahoma were surveyed and asked to respond to the question: "What do you think should be included in a liberal college education?" Those surveyed were asked to make a formal statement expressing their personal beliefs on this subject.

The statement you will read was made by one of those individuals contacted during the survey.

Treatment Message

What should be included in a liberal college education? This is a question that university administrators as well as students are greatly concerned about. There are many differing opinions; however, I personally feel that the following methods and courses should be included.

(Following this introductory paragraph the six issues and respective rationales were presented. They were not numbered and each was presented in a separate paragraph. The disagree issues were manipulated so that they were clearly stated or equivocated, and the order of the issues was either agree-disagree or disagree-agree. In total, there were twelve different treatment messages. After all six issues had been presented, the following concluding paragraph was presented.)

I feel that if these measures are followed, the student will more closely approach a meaningful and truly liberal college education.

APPENDIX G

TIME ONE MEASURING INSTRUMENTS

Introduction and Scaling Instructions

Please provide the following information:

- 1) Last 4 digits of your I.D. number 000-00 _____
- 2) Sex: Circle one -- male female
- 3) Classification _____
- 4) Section _____
- 5) Date _____

Please do not turn to the next page until the instructions for completing the questionnaire have been clarified.

We are currently taking a survey of speech students on the topic "What should be included in a liberal college education?" and we would appreciate your cooperation in this research effort. You will not be identified by name and your anonymous status is guaranteed. We are concerned only with the overall collection of student responses and not the beliefs of specific individuals. Your participation in this survey indicates a willingness to cooperate and help us with this research. Remember, there are no right or wrong answers, and you are encouraged to give us your honest opinion on all questions.

In answering the questions which follow you will be asked to respond to one or several bi-polar scales. For example, if you were to evaluate "Senator George McGovern" and you think he is very attractive, you would mark an "X" as below:

Senator George McGovern

Beautiful : X : _____ : _____ : _____ : _____ : _____ : _____ : Ugly

Homely : _____ : _____ : _____ : _____ : _____ : _____ : X : Handsome

If you feel that he is quite unattractive, of course your "X" would be placed nearer to the "Ugly" pole and "Homely" pole. You may "X" on any of the 7 spaces depending on how you feel about the concept or question under consideration.

The middle space should be considered "neutral." Check this space if you feel that neither adjective applies to the concept or if you feel both adjectives apply equally to the concept.

Please answer all items and make only one "X" on each bi-polar scale.

Agreement Index

Overall, how much do you agree with the message you just read regarding what should be included in a liberal college education?*

Strongly agree : ____ : ____ : ____ : ____ : ____ : ____ : ____ : Strongly disagree
 Right : ____ : ____ : ____ : ____ : ____ : ____ : ____ : Wrong
 Negative : ____ : ____ : ____ : ____ : ____ : ____ : ____ : Positive
 Good : ____ : ____ : ____ : ____ : ____ : ____ : ____ : Bad
 Foolish : ____ : ____ : ____ : ____ : ____ : ____ : ____ : Wise

*A score ranging from "1" to "7" was given to each bi-polar scale. These scores were then summed to produce a possible range from "5" to "35" for the agreement measure with a score of "35" indicating high agreement.

Recall Index

The last part of this questionnaire is very important. It is a test designed to see how well you comprehended the message on what should be included in a liberal college education. There were six main issues presented in the statement you read. Recall as many of these main issues as you can and in as much detail as possible.

(1)

(2)

(3)

(4)

(5)

(6)

MANIPULATION CHECK GROUP MEASURES

Recently a variety of individuals in the state of Oklahoma were surveyed and asked to respond to the question: "What do you think should be included in a liberal college education?" Those surveyed were asked to make a formal statement expressing their personal beliefs about this subject. One of those asked to make a statement was Dr. Paul Sharp, president of the University of Oklahoma. We are not interested in your evaluating his exact statement; rather, we want to know how you would rate this person addressing this topic.

Dr. Sharp has 17 years of experience as the head of college or university administration, serving as president of the University of North Carolina and Drake University before coming to O.U. He is a member of Phi Beta Kappa as well as the Harvard Institute of College Presidents and is a highly recognized lecturer, making presentations to such internationally renowned institutions as the University of Melbourne and the University of Sydney in Australia. In addition, Dr. Sharp is the author of several books and has written numerous articles and reviews for scholarly journals.

On the following bi-polar scales evaluate the credibility of Dr. Sharp as a source addressing the topic "What should be included in a liberal college education?"

Intelligent : ____ : ____ : ____ : ____ : ____ : ____ : Unintelligent
 Qualified : ____ : ____ : ____ : ____ : ____ : ____ : Unqualified
 Incompetent : ____ : ____ : ____ : ____ : ____ : ____ : Competent
 Good : ____ : ____ : ____ : ____ : ____ : ____ : Bad
 Unreliable : ____ : ____ : ____ : ____ : ____ : ____ : Reliable
 Unjust : ____ : ____ : ____ : ____ : ____ : ____ : Just

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Low Credible Source Evaluation

Another person asked to make a statement expressing what he thought should be included in a liberal college education was Curtis Harris, district attorney for Oklahoma County. As before, we are not interested in your evaluating his exact statement, but we want to know how you would rate this person addressing this topic.

Mr. Harris is known for his very conservative view of law and order, and in the last several years he has carried out a campaign to ban all forms of pornography in Oklahoma. He has gone so far as to try and make the selling of Playboy magazine a criminal offense. In addition, he contends that all first offenders found guilty of smoking marijuana should receive the maximum punishment, without exception. It should also be added that Mr. Harris has had very limited exposure to academic affairs or student activities on the university campus.

On the following bi-polar scales evaluate the credibility of Mr. Harris as a source addressing the topic "What should be included in a liberal college education?"

Mr. Curtis Harris*

Intelligent	:	_____	:	_____	:	_____	:	_____	:	_____	:	_____	:	_____	:	Unintelligent
Qualified	:	_____	:	_____	:	_____	:	_____	:	_____	:	_____	:	_____	:	Unqualified
Incompetent	:	_____	:	_____	:	_____	:	_____	:	_____	:	_____	:	_____	:	Competent
Good	:	_____	:	_____	:	_____	:	_____	:	_____	:	_____	:	_____	:	Bad
Unreliable	:	_____	:	_____	:	_____	:	_____	:	_____	:	_____	:	_____	:	Reliable
Unjust	:	_____	:	_____	:	_____	:	_____	:	_____	:	_____	:	_____	:	Just

*The same procedure used in scoring the evaluation of Dr. Paul Sharp was used in evaluating Mr. Curtis Harris, with credibility being measured on the competence and character dimensions.

Evaluation of Clearly Stated Agree Issues,
Clearly Stated Disagree Issues, and
Equivocated Disagree Issues

Below you will find six statements collected from a variety of different individuals who responded to the question: "What do you think should be included in a liberal college education?" In contrast to the information you provided earlier, here we are not concerned with your evaluating the individuals who made these statements; rather, we want to know how you would rate these statements in terms of agreement and degree of vagueness. Evaluate each series of statements independently on the bi-polar scales below each statement, indicating how much you agree with the statement and if you think the statement is clearly or vaguely worded.

(Conditions were randomly assigned to subjects in the check group. Half of the subjects individually evaluated the three clearly stated agree issues and the three clearly stated disagree issues while the other half individually evaluated the three clearly stated agree issues and the three equivocated disagree issues. Each issue was evaluated on two 7-point semantic differential type scales--one for agreement (Strongly agree-Strongly disagree) and one for perceived vagueness (Clearly stated-Vaguely stated). See Appendix A for the exact wording of the issues and supporting rationales.)

APPENDIX I

TIME TWO MEASURING INSTRUMENTS

Introduction and Scaling Instructions

Please provide the following information:

- 1) Last 4 digits of your I.D. number 000-00_____
- 2) Sex: Circle one -- male female
- 3) Classification_____
- 4) Section_____
- 5) Date_____

Please do not turn to the next page until the instructions for completing the questionnaire have been clarified.

Approximately two weeks ago you participated in a survey where you read and responded to a statement on the topic "What should be included in a liberal college education?" The questionnaire we would like for you to complete today is the second part of this survey. As before, there are no right or wrong answers since this is an attitude survey, and you are encouraged to give us your honest opinion on all questions.

In answering the questions which follow you will be asked to respond to one or several bi-polar scales. For example, if you were to evaluate "Senator George McGovern" and you think he is very attractive, you would mark an "X" as below:

Senator George McGovern

Beautiful : X : _____ : _____ : _____ : _____ : _____ : _____ : Ugly

Homely : _____ : _____ : _____ : _____ : _____ : _____ : X : Handsome

If you feel that he is quite unattractive, of course your "X" would be placed nearer to the "Ugly" pole and "Homely" pole. You may "X" on any of the 7 spaces depending on how you feel about the concept or question under consideration.

The middle space should be considered "neutral." Check this space if you feel that neither adjective applies to the concept or if you feel both adjectives apply equally to the concept.

Please answer all items and make only one "X" on each bi-polar scale.

Agreement Index

Remember, if you can, the statement you read on what should be included in a liberal college education. Overall, how much do you now agree with that statement.*

Strongly agree : ____ : ____ : ____ : ____ : ____ : ____ : Strongly disagree
 Right : ____ : ____ : ____ : ____ : ____ : ____ : Wrong
 Negative : ____ : ____ : ____ : ____ : ____ : ____ : Positive
 Good : ____ : ____ : ____ : ____ : ____ : ____ : Bad
 Foolish : ____ : ____ : ____ : ____ : ____ : ____ : Wise

*The agreement measure was scored in the same manner as presented in Appendix G.

Recall Index

There were six main issues presented in the statement you read approximately two weeks ago on what should be included in a liberal college education. Recall as many of these main issues as you can and in as much detail as possible.

(1)

(2)

(3)

(4)

(5)

(6)

APPENDIX J

RESULTS OF MANIPULATION CHECK

Source Credibility Evaluation

N= 20

Source	Mean Competence Score	Mean Character Score
Paul Sharp	18.30	16.35
Curtis Harris	7.35	6.75

Note--The scales and scoring procedure used for the evaluation of source credibility are the same as those described in Appendix E.

Group Receiving All Issues

Clearly Stated

N= 10

Issues	Mean Agreement Score	Mean Vagueness Score
Ethnic Studies Courses	5.30	6.20
Foreign Language Courses	3.10	5.50
Social Sciences Courses	6.00	6.20
Required Courses	2.20	5.60
Mathematics Courses	3.00	5.40
"A" to "F" Grading	1.30	5.70

Note--See Appendix D for the scales and scoring procedure used in measuring agreement and vagueness.

Group Receiving Clearly Stated and Equivocated Issues

N= 10

Issues	Mean Agreement Score	Mean Vagueness Score
Ethnic Studies Courses	5.50	5.80
Foreign Language Courses ^a	4.40	4.30
Social Sciences Courses	5.50	5.50
Required Courses ^a	4.60	6.10
Mathematics Courses	4.60	6.30
"A" to "F" Grading ^a	4.40	5.90

Note--See Appendix D for the scales and scoring procedure used in measuring agreement and vagueness.

^aEquivocated Issues

t-Tests Between
Clearly Stated Disagree Issues
And Equivocated Disagree Issues

	Agreement	Vagueness
1. Foreign Language Courses -- Clearly Stated Disagree vs. Equivocated Disagree	$\bar{X} = 3.10$ $\bar{X} = 4.40$ $t = 1.83^*$	$\bar{X} = 5.50$ $\bar{X} = 4.30$ $t = 1.71$
2. Required Courses -- Clearly Stated Disagree vs. Equivocated Disagree	$\bar{X} = 2.20$ $\bar{X} = 4.60$ $t = 3.04^{**}$	$\bar{X} = 5.60$ $\bar{X} = 6.10$ $t = 0.72$
3. "A" to "F" Grading -- Clearly Stated Disagree vs. Equivocated Disagree	$\bar{X} = 1.30$ $\bar{X} = 4.40$ $t = 4.87^{**}$	$\bar{X} = 5.70$ $\bar{X} = 5.90$ $t = 0.29$
4. Sum of the Disagree Issues -- Three Clearly Stated Disagree Issues vs. Three Equivocated Disagree Issues	$\bar{X} = 6.60$ $\bar{X} = 13.80$ $t = 4.43^{**}$	$\bar{X} = 16.80$ $\bar{X} = 16.30$ $t = 0.33$

* Significant $p < .05$ (1.73 with $df=18$ for a 1 tail test)
 ** Significant $p < .01$ (2.55 with $df=18$ for a 1 tail test)

APPENDIX K

INTER-JUDGE RELIABILITY FOR QUALITY OF RECALL OF DISAGREE ISSUES

Clearly Stated Disagree Issues

Time One

N= 54

	Judge 2	Judge 3
Judge 1	0.974	0.962
Judge 2		0.972

Equivocated Disagree Issues

Time One

N= 54

	Judge 2	Judge 3
Judge 1	0.949	0.953
Judge 2		0.930

Clearly Stated Disagree Issues

Time Two

N= 54

	Judge 2	Judge 3
Judge 1	0.928	0.913
Judge 2		0.916

Equivocated Disagree Issues

Time Two

N= 54

	Judge 2	Judge 3
Judge 1	0.879	0.887
Judge 2		0.879