

PRIOR ATTITUDE AND LANGUAGE
INTENSITY AS PREDICTORS OF
MESSAGE STYLE AND ATTITUDE CHANGE
FOLLOWING COUNTERATTITUDINAL
COMMUNICATION BEHAVIOR

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THESIS



This is to certify that the

thesis entitled

PRIOR ATTITUDE AND LANGUAGE INTENSITY AS
PREDICTORS OF MESSAGE STYLE AND ATTITUDE CHANGE
FOLLOWING COUNTERATTITUDINAL COMMUNICATION BEHAVIOR

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ABSTRACT

PRIOR ATTITUDE AND LANGUAGE INTENSITY AS PREDICTORS OF MESSAGE STYLE AND ATTITUDE CHANGE FOLLOWING COUNTERATTITUDINAL COMMUNICATION BEHAVIOR

By

Michael Burgoon

Research on counterattitudinal advocacy has generally demonstrated that a person who encodes a belief-discrepant message will shift his attitude to more closely conform to the advocated position. As a result of this emphasis placed on attitude change as the primary dependent variable, little attention has been given to the encoded message, nor has prior research manipulated the possible messages to predict attitude change. The purpose of this investigation was twofold: (1) to examine the effects of counterattitudinal encoding on message style, and (2) to investigate ways in which encoding situations can be constructed to predict the magnitude of attitude change resulting from counterattitudinal advocacy.

Two studies were designed to test the relationship between prior attitude and message intensity. The methodology required subjects to complete partially constructed messages by choosing words of varied intensity. In the first experiment, half of the subjects created belief-congruent messages and half created belief-discrepant messages. Subjects in both treatment conditions chose from word lists of comparable overall intensity. It was predicted that persons who encoded a belief-discrepant

message would use language of significantly lower intensity than persons who encoded a belief-congruent message. In the second experiment, subjects prepared a counterattitudinal message using either high, moderate, or low levels of language intensity. It was hypothesized that attitude change would be directly related to message intensity: that the most attitude change would occur in the high intensity condition, the least in the low intensity condition, and the moderate intensity condition would be somewhere between these extremes.

The findings support both theoretical hypotheses. Although both groups in Experiment I encoded moderately intense messages, belief-congruent subjects as predicted, did encode significantly more intense messages than did the subjects in the belief-discrepant condition. Also, the results of Experiment II indicated that relatively intense encoding is a necessary condition for attitude change following counterattitudinal communication behavior. Both the high and moderate intensity groups demonstrated significantly more attitude change than did a non-encoding control group, the low intensity and control groups did not differ. The attitude change was greatest in the high intensity condition, least in the low intensity condition, and the moderate condition fell between.

Findings were discussed in terms of prior research in counterattitudinal advocacy. A number of research extensions, suggested by the findings of this study, were discussed.

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TABLE OF CONTENTS

I. INTRODUCTION	1
II. EXPERIMENT I	16
Procedures	17
Results	24
III. EXPERIMENT II	29
Procedures	30
Results	33
IV. DISCUSSION	41
Research Implications	46
Summary	47
REFERENCES	49
APPENDIX A: PRETEST ATTITUDE QUESTIONNAIRE	53
APPENDIX B: EXPERIMENT I MATERIALS	58
APPENDIX C: EXPERIMENT II MATERIALS	63
APPENDIX D: POSTTEST ATTITUDE QUESTIONNAIRE, IMPORTANCE RATINGS, AUDIENCE ATTITUDE RATINGS, TASK DIFFICULTY RATINGS	72

LIST OF TABLES

1.	Weighted scale values of the experimental words	21
2.	Means, standard deviations and t-test of the differences in language intensity scores in the experimental conditions..	26
3.	Means and t-test of differences in pretest through post- encoding attitude change in the experimental conditions	27
4.	T-test of differences in pretest through post-encoding latitude of acceptance change in the experimental con- ditions	28
5.	Word values, means, standard deviations, and summary of the analysis of variance of differences of words selected for use in the experimental conditions	31
6.	Percentage, frequency, and Chi-square test of subjects correctly perceiving audience attitude	33
7.	Pretest attitude and latitude of acceptance measures	34
8.	Means and standard deviations for experimental and control groups	35
9.	Attitude scores, amount of change, and analysis of variance of attitude change scores of experimental and control groups	36
10.	Analysis of differences of attitude change scores between each experimental and control group	36
11.	Attitude scores, amount of change, and analysis of vari- ance of attitude change scores of experimental groups	38
12.	Analysis of difference of attitude change scores between each experimental group	38
13.	Latitude of acceptance means, standard deviations, and analysis of variance of pretest latitude of acceptance scores for experimental and control groups	39

14. Latitude of acceptance scores, amount of change and analysis of variance of latitude of acceptance change scores of experimental and control groups	40
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LIST OF FIGURES

1. The Experimental Design: Experiment I	16
2. Thurstone and Jones-type Attitude Scale	18
3. The Experimental Design: Experiment II	29

CHAPTER I

INTRODUCTION

The Problem

For the past two decades researchers have been investigating the effects of certain encoding situations on source attitude change (Moreno, 1946; Hovland, Janis and Kelly, 1953; Festinger, 1957). The typical experiment has required persons to produce messages advocating a position contrary to their private opinions. Upon completion of this counterattitudinal task, some attitude assessment measure is obtained. Research has emphasized specification of variables that increase the magnitude of attitude change resulting from counterattitudinal encoding behavior.

The research consistently demonstrates that a person who encodes a belief-discrepant message will shift his attitude to conform more closely to the advocated position. The effects of specific antecedent conditions such as justification (Festinger and Carlsmith, 1959; Elms and Janis, 1965; Rosenberg, 1965), type of encoding (Collins, 1968), and effort (Zimbardo, 1965) have produced much theoretical debate. This effort has been aimed at specifying the conditions that lead to attitudinal shifts.

As a result of the emphasis placed on attitude change as the primary dependent variable, little attention has been given to the encoded message, nor have there been many attempts to determine the effects of counterattitudinal encoding upon message production. Finally, prior

research has not manipulated the possible messages produced in order to predict attitude change. The purpose of this investigation was twofold: (1) to examine the effects of counterattitudinal encoding on message production, and (2) to investigate ways in which encoding situations can be constructed so that message analyses can be used to predict magnitude of attitude change.

Analysis of Counterattitudinal Messages

In early studies by Janis and King (1954) and King and Janis (1956) the explanation of counterattitudinal encoding effects was based upon an assumed relationship between the kind of counterattitudinal message encoded and the resulting magnitude of attitude change. Their research led to the conclusion that reformulating and elaborating on a belief-discrepant topic is a critical determinant of attitude change. Only very gross experimenter evaluations of message production were reported.

Janis and Gilmore (1965) and Elms and Janis (1965) argue that when a person accepts the task of encoding a belief-discrepant message, he becomes motivated to think up all of the good belief-discrepant arguments he can and simultaneously repress belief-congruent arguments. Such "biased scanning" should produce higher quality belief-discrepant messages. In order to test for quality differences in the messages, judges' blind ratings of counterattitudinal essays were obtained. In effect, the quality ratings only measured the number of explicit arguments supporting the belief-discrepant position. Janis and Gilmore found a direct relationship between message quality and attitude change, but Elms and Janis failed to replicate this finding.

Festinger and Carlsmith (1959) used concealed audio-recording equipment to record the verbal belief-discrepant messages. These recordings were transcribed and then rated, by two independent judges, on several dimensions: (1) the strength of the positive statements about the dull task, (2) a rating of the overall content of what the subject said, (3) a rating of how persuasive and convincing the message was, and (4) a rating of the amount of time the subject discussed the task as opposed to discussing irrelevant things. These researchers found no significant differences in message production as a result of counterattitudinal encoding behavior under various levels of justification.

Carlsmith, Collins, and Helmreich (1966) also used judges' ratings to analyze counterattitudinal messages. Transcriptions of verbal messages were rated by three judges on five dimensions: (1) persuasiveness and emphasis, (2) overall positiveness, (3) overall positiveness and conviction, (4) percent of time discussing topic, and (5) dissociation of self from content. In addition to judges' ratings, the researchers asked for the experimental accomplice's evaluations of the oral presentation of each subject. The first three of the above scales were used in addition to ratings of apparent conflict and signs of discomfort.

Carlsmith, Collins, and Helmreich also analyzed written essays rated on four scales: (1) emphasis used in making points, (2) the extent to which the subject created reasons in support of the belief-discrepant position, (3) overall quality and persuasiveness, (4) apparent effort expended with an attempt to control for writing ability. None of the judges' ratings of the messages yielded any significant differences among treatment groups. Also, no evidence was found that any message measure was correlated with posttest attitudes.

Similarly, Linder, Cooper, and Jones (1967) examined the messages produced in two self-persuasion studies. One objective measure was obtained by counting the number of words per essay. In addition, two judges rated each essay on scales measuring: (1) degree of organization, (2) overall persuasiveness, and (3) extremity of the position advocated. No significant message differences were observed. Again, only counterattitudinal messages in different experimental conditions were analyzed.

Rosenberg (1965) relied on two judges' evaluations of basic persuasiveness. Word-counts were also taken on the essays. Rosenberg concluded that those who wrote comparatively unpersuasive essays for a small reward showed significantly more negativism toward the counterattitudinal position. In the high reward treatment conditions, there was no correlation between essay persuasiveness and posttest attitude. In general, Rosenberg concluded that the subjects in the low reward condition were insufficiently motivated to encode belief-discrepant messages.

Thus, of the six self-persuasion studies that analyzed messages, all used some sort of overall evaluation of persuasiveness or quality. All evaluated only belief-discrepant messages; none compared belief-congruent messages with counterattitudinal messages. Four of the six studies used essay length as the only objective measure; the other objective measures reported were time spent encoding and number of counterattitudinal arguments produced.

The prior research neglects to analyze messages on content or style at a level of abstraction less than overall judgments of a total message. No attempt has been made to manipulate kinds of message production to predict attitude change. Greenberg (1960) and McEwen (1969) are the only

researchers who have attempted to structure encoding situations so as to predict differences in message production and style variables.

The present research sought to devise a methodology for dealing with two questions: (1) How do belief-discrepant messages differ from belief-congruent messages? (2) Is there a relationship between how strongly a person argues against the position he privately holds and the magnitude of his attitudinal shift toward the advocated position?

Message Production Under Psychological Stress

While attempting to formulate hypotheses about message production in counterattitudinal encoding situations, McEwen (1969) summarized a number of studies that related psychological stress to verbal behavior. Greenberg and Tannenbaum (1962) found that subjects who produced messages under induced cognitive stress took longer to encode the message, made more writing errors, and created less readable messages than did subjects in a low stress condition. The authors conclude that "Clearly and strikingly, a communication performance can be hindered by the degree of cognitive stress in the encoding situation" (p. 176).

Bettinghaus and Preston (1964) also investigated the effects of cognitive stress on an encoder. Subjects encoded single sentences on a number of topics that were either belief-discrepant or belief-congruent. Each subject encoded both messages that were discrepant and congruent with his private opinion. Subjects took significantly more time to encode belief-discrepant than belief-congruent messages.

Osgood and Walker (1959) compared suicide notes with personal letters and found stylistic differences that they attributed to the psychological stress of the writers of the suicide notes. Lazarus, Deese, and Osler

(1952) reported that the induction of cognitive stress leads to longer encoding times, less learning, less recall, and more errors in the final message.

To the extent that counterattitudinal advocacy results in psychological stress (Festinger, 1957), changes in message output and style are to be expected. McEwen (1969) summarizes the expected effect of belief-discrepant encoding on message production:

...messages produced by people under conditions of heightened motivation or tension (due to the introduction of variables tending to increase psychological imbalance) should exhibit certain measurable tendencies which are indicative of an overall performance decrement. The encoding rate should take longer (or proceed at a slower rate) and the message output should contain more errors. (p. 7)

There is also evidence that encoding under cognitive stress, such as in a situation of counterattitudinal advocacy, will lead to the use of less intense language. Osgood and Walker (1959) found a higher percentage of ambivalent constructions (e.g. "maybe" and "possibly") and ambivalent assertions used by encoders under stress. Taken as a whole, the research suggests that counterattitudinal encoding leads to more hesitancy and the use of less intense language.

The Relevance of Language Intensity to Attitude Research

Language intensity is an important variable to communication researchers, for knowledge of intensity may permit inferences about the attitudinal state of a communicator and his effects on both receiver attitudes and his own attitudes. Nevertheless, many contemporary communication researchers carry on studies in which they ignore intensity and most other message variables in their search for predictors of attitude

change. This study assumes that analyses of the messages produced in situations of counterattitudinal advocacy can be useful for predicting the attitudinal state of the encoder.

A number of terms in literary criticism and general semantics specify classes of words that express the attitudinal state of the communicator. Thomas DeQuincey (1890) wrote of "language power;" Hayakawa (1949) used the term "affective connotation;" and Ogden and Richards (1952) coined the term "emotive meaning." Each of these terms denotes a class of words that have an evaluative dimension expressing the communicator's values of goodness and badness. These works suggest the following definition of language intensity: that quality of language which indicates the direction and the strength of a communicator's attitude toward an attitude object. However, this definition offered by the semanticists is of limited use in theory building, since they contend that the intensity of a term is relative to the person judging it.

Fortunately, there is empirical evidence to show that intensity is not completely relative. Osgood, Saporta, and Nunnally (1956) were among the first to devise a system for judging the intensity of a communication with high reliability. Use of their technique of evaluative assertion analysis revealed some commonality in the way people responded to various word units in their language. The study provided a basis to test the proposition that intensity is an indication of strength and direction of an attitude.

Language Intensity: An Explication

The explication of language intensity has led to three different patterns of operationalization: linguists have attempted to find

values of intensity at the word level; others have sought to specify the intensity of phrases and sentences; investigators of counterattitudinal messages have used gross measures of entire messages.

Word level. Lilly (1968a) defines language intensity as the amount of modification that adverbs have upon the meaning of object words. He suggests that the scale values of adverbs on an intensity continuum would be an equation in the form:

$$X_{ij}=A_iS_j+K,$$

where X_{ij} is the empirical scale value of the i th adverb combined with the j th adjective; A_i is the multiplying value of the i th adverb; S_j is the theoretical scale value of the j th unqualified adjective; and where K is the arbitrary zero point on the scale.

In one study Lilly constructed three different questionnaires. Questionnaire 1 contained intensive adverbs that were derived from subject rankings. Nine adverbs were combined with seven adjectives connoting strength, the neutral word "average," and six adjectives connoting weakness to produce 126 combinations. In addition, each adjective was presented unqualified. Questionnaire 2 had ten probabilistic adverbs (e.g. "possibly"), while the Questionnaire 3 contained ten frequency adverbs (e.g. "always") combined with the adjectives. The method of successive intervals was used to transform the categorical ratings to an interval metric. The results indicated that the linear formula was a good predictor of the modification of meaning that certain adverbs will have on object words.

In another study, Lilly (1968b) again tested this linear formulation by combining the same set of adverbs with sixteen adjectives to

form a pool of 160 items. In order to check the reliability of the scale values obtained with the method of successive intervals, sixteen stimuli from a questionnaire with only positive-frequency adverbs (e.g. "always") and sixteen stimuli from a questionnaire with negative-frequency adverbs (e.g. "never") were scaled with pair-comparisons. Sixteen stimuli were placed in sixteen blocks of four items each and the subjects ranked each set of the four stimuli from most favorable to least favorable. Gulliksen and Tucker (1961) discuss the method of using multiple rank-orders to obtain pair-comparisons. The obtained correlation between successive interval and pair-comparison scaling was .97. In addition the study reported that the sixteen adverb modifiers were found to fit the linear equation presented above.

Howe (1966) defined intensity in terms of adverbial modification, verb tense, and negatives. Fourteen adjectives were rated on an eleven point scale of (un)favorableness singly and when preceded by twenty-one quantifiers. The quantifiers consisted of eight adverbs denoting frequency (e.g. "often"), seven adverbs denoting temporal frequency (e.g. "soon"), three verb tenses (e.g. "is," "was," "will be") and three negatives (e.g. "not," "un-," "not un-"). Data from eighty-eight subjects were scaled by successive intervals methods. Empirical scale values for all quantifier-adjective pairs were tested against a linear model. All four classes of quantifiers were found to exert decremental effect on the degree of evaluative polarization of the adjectives. This study adds to earlier research by including various forms of adverbs, verb tenses, and single and double negatives. There have been similar studies by Cliff (1959) and Howe (1962) which demonstrate that language can be scaled to create equal interval scales on an intensity

continuum. All of these studies have stopped after completion of an intensity scale. As a result, there has been little effort by linguists to use these scales to find correlates of language intensity.

One reason for the infrequent use of these word scales is the difficulty in contriving research situations in which such a small pool of words has predictive or explanatory value. It would seem that either research must be structured so that tight control restricts possible word use to the word pool with scale values, or the population of scaled words must be increased so that freely encoded messages can be analyzed.

Phrase - Sentence level. Bowers (1963) was among the first to investigate the effects of language intensity and other variables upon attitude change. He defines language intensity as the quality of the language that indicates the degree to which the speaker's attitude toward a concept deviates from neutrality. Judges rated words and phrases according to intensity, and from these ratings high and low intensity messages were created. A predicted interaction between language intensity and social introversion on attitude change was not confirmed but low intensity messages against a topic were more persuasive on a separate audience. The highly intense language caused a "boomerang" effect that lowered the credibility of the source and inhibited attitude change.

In a later study (Bowers, 1964), a list of correlates of language intensity was presented. Again, language intensity was defined in terms of judges' ratings of 482 sets of items. The results were: (1) a low but significant correlation between intensity and word length, (biserial $r = .10$), (2) a moderate correlation between intensity and obscurity of words (tetrachoric $r = .59$), (3) a high correlation between intensity

and the presence of qualifiers (tetrachoric $r = .89$), and (4) a high correlation between intensity and metaphorical quality (tetrachoric $r = .83$). Although the method of using judges' ratings of intensity leads to less precision than the scales reported earlier, the two studies by Bowers suggest relationships between language intensity, personality variables, and attitude change.

Message level. If language intensity is defined as the quality that indicates the degree to which the speaker's attitude deviates from neutrality, the self-persuasion studies previously reviewed report gross measures of overall message intensity. Overall persuasiveness and extremity of position advocated are message level measures of deviation from neutrality.

The counterattitudinal encoding studies consistently found no differences in counterattitudinal messages across treatment conditions. There are several possible explanations for this lack of findings. First, no one compared belief-discrepant and belief-congruent essays. Burgoon (1969a) found that judges rated belief-discrepant messages neutral in 31% of the judgments; only 49% of the essays advocating the belief-discrepant side were correctly identified as belief-discrepant, and 20% of the belief-discrepant messages were rated as advocating the belief-congruent position.¹ By contrast, 96% of the belief-congruent messages were correctly identified.

¹The analysis was performed on messages produced in a study by Miller and Bodaken (1969). Five messages were randomly drawn from the four treatment conditions yielding ten belief-congruent and ten belief-discrepant essays for analysis. Thirteen faculty and graduate students rated the messages as advocating "pro- or anti- mandatory on-campus living" or "neutral as to topic side." This yielded 260 judgments (13 judges x 20 messages) that were analyzed by a 3 x 2 Chi-square

The conclusions drawn from these data suggest that the subjects did not fulfill the requirements of counterattitudinal advocacy in a majority of the essays. More precise measures are needed to establish the differences in deviation from neutrality of belief-discrepant versus belief-congruent essays. Moreover, research should be undertaken to determine the correlation between the intensity of the counterattitudinal position and posttest attitude.

The Relationship Between Intensity of Assertion and Source Attitude Change. There have been few attempts to specify the relationship between the intensity of an assertion and attitude change following counterattitudinal advocacy. Festinger (1957) posits "believing x" and "saying not-x" leads to psychological inconsistency. It has been consistently demonstrated (Festinger and Carlsmith, 1959; Carlsmith, Collins and Helmreich, 1966; Miller and McGraw, 1969) that one way of reducing this inconsistency is to change private opinion to more closely conform to the advocated position. None of the research demonstrates that "believing x" but "strongly advocating not-x" leads to more attitude change than "moderately advocating not-x."

design. Chi-square = 56.06, $p < .001$.

		Condition		
		Congruent	Discrepant	
JUDGMENT	Correct	96%	49%	*Correct =
	Neutral	4%	31%	
	Error	0%	20%	
				congruent treatment-congruent judgment
				discrepant treatment-discrepant judgment

Nevertheless, dissonance theory offers several reasons for predicting a direct relationship between message intensity and attitude change. First, dissonance theory postulates that increased commitment to belief-discrepant encoding increases the magnitude of dissonance and resulting attitude change (Ashmore and Collins, 1968; Helmreich and Collins, 1968). Forcing a person to "strongly say not-x" is a method of inducing commitment to the counterattitudinal message. If a person encodes a very intense message, the probability of the receiver perceiving what position is being advocated is high. On the other hand, Burgoon (1969a) demonstrated that some counterattitudinal messages are so ambiguous that an audience can not determine the advocated position. This ambiguity stemmed largely from the low intensity of the counterattitudinal message; in fact, as indicated above, numerous messages were perceived as advocating the other side of the issue.

A person encoding a highly intense counterattitudinal message satisfies McGuire's (1964) conditions for high commitment: (1) a private decision to encode the message, (2) a public pronouncement of the position, (3) active participation, and (4) external commitment (a person telling another that he holds a particular belief). If a message is of low intensity or is neutral the fourth condition is apparently not satisfied. This might account for the lack of attitude change in the Miller and Bodaken (1969) study, since a majority of the messages judged could not be identified as advocating the counterattitudinal position. In summary, highly intense counterattitudinal messages should increase commitment to the belief-discrepant task, and one possible way of avoiding dissonance is to write messages that do not convey a message that is interpretable.

Another of Festinger's (1957) postulates leads to the prediction of a direct relationship between assertion intensity and attitude change. Festinger states that the greater the difficulty in reversing a decision the greater the dissonance produced by the decision. If one advocates a position that deviates markedly from neutrality, the position of the encoder should be apparent to the receiver. This would make the possibility of denying the counterattitudinal nature of the message more difficult. For example, when a source constructs a message with low intensity modifiers such as "doubtfully" and "conceivably" (Lilly, 1968), he should find it easier to deny that he ever actually took a belief-discrepant position. A probabilistic assertion containing such modifiers allows the encoder the opportunity to concede that the opposite of the assertion might in fact be the correct position.

If the encoder is forced to state a position with a high degree of certainty or definiteness, the opportunities to deny the correctness of his assertion are reduced. Thus, the more definite the source makes his assertion the more difficult it is to accept any other position or assertion and, in effect, reverse his decision. The irrevocable nature of high intensity assertions should lead to an increased magnitude of dissonance and therefore more attitude change should result when the counterattitudinal encoding behavior is of high intensity.

Rationale and Hypotheses

The research evidence summarized above leads to the following conclusions: (1) counterattitudinal advocacy has a measureable effect upon message production, and (2) there is a direct relationship between message intensity and the magnitude of attitude change resulting from

counterattitudinal encoding. This investigation tested the following hypotheses:

Prior attitude as a predictor of language intensity. Based upon the work of McEwen (1969), Burgoon (1969a) and Osgood and Walker (1959) it was predicted that the encoding style of persons writing counterattitudinal essays will differ from others writing belief-congruent essays, specifically:

- H₁: Persons who encode a counterattitudinal message will use language of significantly lower intensity than will persons who encode a belief-congruent message.

Language intensity as a predictor of attitude. It was predicted based upon the Theory of Cognitive Dissonance (1957) and subsequent research that the greater the difference between prior attitude and the intensity of the counterattitudinal advocacy, the greater the magnitude of the attitude change, specifically:

- H₂: Given counterattitudinal advocacy by people with similar prior attitudes, the magnitude of attitude change varies directly with the intensity of the counterattitudinal assertion.

CHAPTER II

EXPERIMENT I

Overview

All experimental subjects wrote either a belief-discrepant or belief-congruent message. The intensity of the messages created was compared for groups of subjects arguing counterattitudinally and attitudinally-consistent. Each subject's attitude and latitude of acceptance toward the experimental issue was assessed immediately after completion of the required encoding tasks.

Ss ($N = 45$) were members of an introductory business writing class at Michigan State University. Subjects were told that the project required help in creating written messages and thus business writing classes had been selected.

Encoding condition was the independent variable used. Each subject wrote either a belief-discrepant or belief-congruent message. The overall design is presented in Figure 1.

Encoding Conditions	
<u>Belief-Congruent</u>	<u>Belief-Discrepant</u>
Language	
Intensity	

Figure 1. The Experimental Design: Experiment I

Language intensity measures were obtained for each message in both cells. Comparisons were then made between the two encoding conditions.

Procedures

Pretest

Two weeks before the actual experiment, Ss were administered a pretest questionnaire, ostensibly to solicit student opinion on possible issues to be used in a project for another class. (See Appendix A) The instrument contained several issues believed to be salient for undergraduate students. Each issue was followed by a seven-interval scale, with the intervals labeled excellent, good, fair, neutral, poor, bad, and terrible (Thurstone and Jones, 1955). The Ss were instructed to mark an "A" above the word that best represented their attitude toward the issue.

The Thurstone and Jones-type measure was developed by computing scale values for word anchors. Successive interval scaling techniques yielded values expressed in standard score deviations from a neutral point. This known-interval instrument allowed precise estimates of the width of each unit on the scale. Prior correlational analysis yielded an r of .86 between this scale and a standard four-item semantic differential-type scale using polar adjectives loading on the evaluative dimension.

The Thurstone and Jones-type scales were scored by using the standard score weight assigned to each anchor. Figure 2 presents the scale and the weighted values of the anchors. For analysis purposes, 4.1 was added to each value to yield a scale with a low value of 1.0 and a high of 7.8.

7.8	6.0	4.9	4.0	2.9	2.1	1.0
Excellent	Good	Fair	Neutral	Poor	Bad	Terrible

Figure 2. Thurstone and Jones-type Attitude Scale

None of the issues tested produced a bimodal distribution that would have allowed the use of the same set of words for each experimental condition. Thus, it was necessary to select the issue that had the most skewed distribution so that two separate encoding conditions could be created. The issue producing the most skewed distribution advocated mandatory on-campus living during college attendance.

Independent Variable

One independent variable was manipulated in this study. This variable was dichotomized as Belief-Congruent Encoding and Belief-Discrepant Encoding. Since the attitude issue yielded a skewed distribution, all Ss who encoded a message supporting mandatory on-campus living comprised the Belief-Discrepant condition. Those Ss who argued against mandatory on-campus living comprised the Belief-Congruent condition.

Inductions and Posttest

Two weeks after the pretest had been administered and the experimental issue had been chosen, Ss were induced to perform the encoding task. E gave the following instructions to S:

Dear Student:

For the past several months, the Center for Opinion Research at Michigan State University has been conducting research aimed at finding out what it takes to strengthen or change people's attitudes. What we do is get some indication of the attitudes people have on certain issues and then, at some later date, we present certain arguments in the form of speeches, essays, debates, -- various methods -- which are designed to get them to change or strengthen their attitudes.

Let me explain briefly what we are attempting to do in the research that you will be helping us with. Sometime ago we administered questionnaires to students enrolled in the Lansing-East Lansing Area High Schools asking them their attitudes toward the policy of required on-campus living during their attendance at college. Analysis of the questionnaires indicate that these students are generally UN-DECIDED on the issue.

We then asked over 500 Michigan State University students to write persuasive messages to support (reject) a policy that would require students to live on campus while attending the University. You will soon be given the arguments that students like you created. It is even possible that some of you helped in the original research effort. We found that the arguments produced were similar in content. HOWEVER, OUR ANALYSIS OF THE PERSUASIVE EFFECT OF THESE MESSAGES INDICATES THAT CERTAIN WORDS ARE THE MOST IMPORTANT IN CHANGING THESE STUDENT'S ATTITUDES.

Thus, in preparing your persuasive messages it is very important for you to choose what you feel are the most persuasive words. It is important that you select the words you think will be successful for we feel that all of our effort to date depends on your choice of the persuasive words. Think about the choices and try to decide which word in each argument might be best used to change attitudes. Also the order of the arguments is important and we want you to think about what order of presentation might be most effective.

This part of the research is very important to the successful completion of the project. We want to thank all of you for helping us create messages that we will show to high school students in an attempt to change their attitudes toward on-campus living. Remember we want you to persuade the students to support (reject) mandatory on-campus living.

Ss were then given a message with ten blank spaces and were told to use only words on an attached list to create the most persuasive message they could to change high school students' attitudes. (See

Appendix B) After 15 minutes, the messages were collected and the post-encoding questionnaires were distributed. (See Appendix C) The instrument contained the same Thurstone and Jones-type scale employed in the pretest to measure attitudes toward compulsory on-campus living. The post-encoding instrument presented the anchors in complete sentences to avoid sensitization resulting from using an instrument identical to the pretest questionnaire. Also, the instrument contained items designed to measure the Ss' perceptions of the importance of the encoding task, audience attitude, and task difficulty.

To ensure randomization of Ss to treatment conditions, two different persuasive word lists were distributed as the Ss entered the room. One list of words allowed the subject to encode a message favoring compulsory on-campus living; the other list contained only words that would allow the encoding of an essay opposing the issue.

Preparation of Experimental Material

The dependent variable in this study was language intensity: the quality that indicates the degree to which the writer's attitude deviates from neutrality. Thurstone and Jones (1955) developed scale values for 51 words that measured deviation from a neutral point. Through the method of successive interval scaling based upon judgments of a like-population of students, standard score weights were assigned to the pool of words. Table 1 presents the population of words and the standard score for each word or phrase. In the Belief-Congruent condition (opposition to mandatory on-campus living), Ss were given a choice of words with scale values ranging from -0.30 to -6.44; in the Belief-Discrepant condition (support of mandatory on-campus living) the scale values ranged from +0.69 to +6.15.

Table 1. Weighted scale values of the experimental words

Best of all	6.15	Fair	.78
Favorite	4.68	Acceptable	.73
Like extremely	4.16	Only fair	.71
Like intensely	4.05	Like slightly	.69
Excellent	3.71	Neutral	.02
Wonderful	3.31	Like not so well	-.30
Strongly like	2.96	Like not so much	-.41
Like very much	2.90	Dislike slightly	-.59
Mighty fine	2.88	Mildly dislike	-.74
Especially good	2.86	Not pleasing	-.83
Mighty favorable	2.81	Don't care for it	-1.10
Like very well	2.60	Dislike moderately	-1.20
Very good	2.36	Poor	-1.35
Like quite a bit	2.31	Dislike	-1.58
Enjoy	2.21	Don't like	-1.81
Preferred	1.96	Bad	-2.02
Good	1.91	Highly unfavorable	-2.16
Welcome	1.77	Strongly dislike	-2.37
Tasty	1.76	Dislike very much	-2.49
Pleasing	1.58	Very bad	-2.53
Like fairly well	1.51	Terrible	-3.09
Like	1.38	Dislike intensely	-3.31
Like moderately	1.12	Loath	-3.76
OK	.87	Dislike extremely	-6.22
Average	.86	Despise	-6.44
Mildly like	.85		

Messages were constructed with ten blank spaces left for insertion of the word choices. One blanked message was used for both treatment conditions. Language intensity scores were obtained by summing the scale values of the words written in the ten blanks. To ensure that the two treatment conditions did not differ in language intensity prior to the experiment, a t-test was used to compare the mean scale values of the words used in both treatment conditions. This analysis yielded a mean of 2.3 in the Belief-Discrepant condition and a mean of 2.2 in the Belief-Congruent condition; these scores were not statistically different.

In addition, attitude change and latitude of acceptance were analyzed to measure differences resulting from the encoding condition. Correlational analyses determined the relationship between attitude change and language intensity.

Control Variables

Choice. Central to Festinger's (1957) theory of cognitive dissonance is choice to commit belief-discrepant behavior. It is only when the individual makes a choice that he experiences dissonance. Since this study sought to create conditions conducive to dissonance arousal, all Ss were given a choice to participate in the experiment.

Audience Commitment. Nel, Helmreich, and Aronson (1969) and Bodaken (1970) offer support for the position that possible aversive consequences increase the amount of dissonance experienced. Ss in this study were told that the target audience was uncommitted on the issue of mandatory on-campus living. This was intended to increase the aversive consequences of the encoding behavior by not only placing the S in the position of creating a persuasive message but also increasing the probability of that message persuading the intended audience.

Publicness. Collins (1968) and others contend that public commitment to a position increases the dissonance associated with counter-attitudinal advocacy. All Ss were instructed to place their names on the messages so that they could be shown to high school students.

Manipulation Checks

The importance of the contribution to the persuasion project was determined by having Ss respond to the following question: "Did you

feel that your contribution to the persuasion campaign was important?" Ss responded on a seven-interval semantic differential-type scale bounded by the polar adjectives important - unimportant.

The effectiveness of the audience attitude manipulation was determined by having Ss respond to the following question: "Before you wrote your essay, how did you think the high school students felt toward the issue of compulsory on-campus residency?" Ss responded by marking either Favorable, Undecided, Opposed, or Don't Know.

The amount of perceived difficulty in completing the experimental task was measured by having Ss respond to the following question: "How difficult was it for you to write an essay on this issue?" Ss responded on a seven-interval, semantic differential-type scale bounded by the polar adjectives difficult - easy.

To ensure that subjects were arguing either counterattitudinally or attitudinally-consistent, latitude of acceptance scores were obtained. In addition to marking personal attitude on the Thurstone and Jones-type scale, Ss were instructed to place an "X" by each word they could accept concerning the attitude statement. Latitude of acceptance was computed by subtracting the lowest valued acceptable statement from the highest. In the Belief-Discrepant condition, the encoded statements included words outside the Ss' latitudes of acceptance. The message encoded in the Belief-Congruent condition contained words within the Ss' latitudes of acceptance.

Results

Manipulation Checks

Choice. No direct written measure of perceived choice was obtained. However, in the Belief-Discrepant condition four subjects refused to participate, while two subjects chose not to encode the messages in the Belief-Congruent condition.

Audience Attitude. The effectiveness of the audience attitude manipulation was determined by computing the number of individuals in each treatment condition who correctly perceived the experimental induction. In the Belief-Congruent condition 74% of the subjects perceived the audience to be uncommitted on the issue while 59% of the subjects in the Belief-Discrepant condition correctly perceived the experimental induction. A Chi-square test indicated that these percentages were not significantly different. Although the induction was successful for a majority of the subjects in each cell, the Belief-Discrepant condition had a rather large number of subjects who incorrectly perceived audience attitude (41%).

Difficulty. To determine the amount of difference in perception of task difficulty in the two experimental conditions, a t-test on mean differences was computed. On a seven-point scale, with difficult being scored as one, the Belief-Congruent condition had a mean of 3.13 while the Belief-Discrepant condition had a mean of 3.09. These means were not significantly different. Subjects' ratings indicated that both groups rated the task as moderately difficult.

Importance. On a seven-point scale, with important being scored as seven, the Belief-Congruent condition had a mean rating of 4.63

while the Belief-Discrepant condition had a mean rating of 3.90; these means were not significantly different. Apparently, subjects perceived the task as moderately important.

Latitude of Acceptance. The pretest attitude ratings in the Belief-Congruent condition yielded a mean of 1.35 with a latitude of acceptance of 1.35 scale units. The Belief-Discrepant condition had a mean of 1.82 with a latitude of acceptance of 1.56 scale units. The pretest measures indicated that the attitude issue was very skewed and all subjects had a latitude of acceptance on the negative side of neutrality. Thus, the results indicated that any subject who encoded statements on the positive side of neutrality was encoding a belief-discrepant message, i.e., the statements encoded were not included in the range of acceptable statements. Any subject who encoded a message on the negative side of the neutral point was arguing attitudinally-consistent.

Test of the Hypothesis

The first hypothesis of this study was tested by means of a t-test. Data were the summated scale values for the ten words chosen to complete the message. The significance level employed for all analyses was .05.

The first hypothesis predicted that belief-discrepant messages would differ in language intensity from belief-congruent essays, specifically:

Persons who encode a counterattitudinal message will use language of significantly lower intensity than will persons who encode a belief-congruent message.

Table 2 indicates the level of language intensity and presents a summary of the test of differences between the two experimental groups.

The results of this analysis indicate that Hypothesis 1 is supported and that subjects encoding counterattitudinal messages used less intense language than subjects encoding belief-congruent messages.

Had the subjects in the Belief-Congruent condition selected the ten most intense words, the mean intensity rating would have been 34.39; the mean intensity rating of the ten most intense words in the Belief-Discrepant condition was 37.66. This difference is a potential conservative bias as the hypothesis predicted that the Belief-Discrepant condition would be less intense. The results indicated that while both groups encoded moderately intense messages, the intensity of the Belief-Discrepant messages were significantly less intense than those produced in the Belief-Congruent condition (Table 2).

Table 2. Means, standard deviations and t-test of the difference in language intensity scores in the experimental conditions.

Belief-Congruent	Belief-Discrepant	t	P
$\bar{X} = 25.28$	$\bar{X} = 22.20$	2.33	< .05
S.D.= 2.72	S.D.= 2.98		
$t_{.05, df = 40} = 2.02$			

Supplementary Analyses

In addition to the analysis of the language intensity data, analyses were performed on measures related to the attitude and latitude of acceptance changes of the subjects in both experimental conditions.

Attitude Change

Pretest. After random assignment of subjects to experimental conditions, a t-test was performed on the attitude scores of the two experimental groups to ensure that the pretest scores were not significantly different. The mean pretest attitude of the Belief-Congruent condition was 1.35 while the Belief-Discrepant condition had a mean of 1.82. The results of the analysis indicated that the mean ratings did not differ significantly.

Posttest. Immediately after the encoding task, attitude measures were again obtained. Table 3 indicates the amount of pretest through post-encoding attitude change and presents a summary of the test of mean differences between the two groups. The Belief-Congruent condition showed more attitude change than did the Belief-Discrepant condition although the differences were not statistically significant. Although no specific predictions were made concerning attitude change in this experiment, it was expected that the Belief-Discrepant condition would show more attitude change. The results are inconsistent with such an expectation.

Table 3. Means and t-test of differences in pretest through post-encoding attitude change in the experimental conditions.

Condition	Pretest	Posttest	Change	t	P
Belief Congruent	1.35	2.80	1.45	< 1	N.S.
Belief Discrepant	1.82	2.82	1.00		
<u>t</u> .05, <u>df</u> = 40, = 2.02					

A product-moment correlational analysis of the relationship between attitude change and language intensity in the Belief-Discrepant condition yielded an r of .28 which was not significant ($r_{.05}$, $df = 21$, = .36).

Latitude of Acceptance

Pretest. After random assignment of subjects to experimental conditions, a t -test was performed on the latitude of acceptance pretest scores to ensure that the two experimental conditions were not significantly different. The mean latitude of acceptance in the Belief-Congruent condition was 1.35 while the Belief-Discrepant condition had a mean of 1.56. The results of the analysis indicated that the group means did not differ significantly.

Posttest. In conjunction with the posttest attitude measure, the subjects completed latitude of acceptance measures. Table 4 indicates the amount of pretest through post-encoding latitude of acceptance changes and presents a summary of the mean differences between the two groups. The analysis indicated that encoding condition had no effect on the width of the latitudes of acceptance of the individuals performing the task.

Table 4. T-test of differences in pretest through post-encoding latitude of acceptance change in the experimental conditions.

Condition	Pretest	Posttest	Change	t	P
Belief Congruent	1.35	1.48	.13	<1	N.S.
Belief Discrepant	1.56	1.77	.21		

$t_{.05}$, $df = 40$, = 2.02

CHAPTER III

EXPERIMENT II

Overview

All experimental Ss encoded one belief-discrepant message that was either high, moderate, or low in language intensity. Attitude change scores for groups of Ss arguing counterattitudinally with different levels of language intensity were compared.

Ss ($N = 106$) were obtained from three introductory business writing classes at Michigan State University. The subjects were told that the project required help in creating written messages and thus business writing classes had been chosen.

Language intensity was the independent variable used in this study. The variable language intensity took three values: high, moderate, and low. The overall design is presented in Figure 3.

	Language Intensity		
	High	Moderate	Low
Attitude Change			

Figure 3. The Experimental Design: Experiment II

Attitude change scores were computed for each S in all cells. Comparisons in terms of the dependent measure were made among the three encoding conditions.

Procedures

Pretest. Two weeks before the actual experiment, the identical pretest procedure described in Experiment I was completed on Ss in this investigation. (See Appendix A)

Independent Variable

One independent variable, language intensity, was manipulated in this study. This variable is defined as the quality that indicates the degree to which the writer's attitude deviates from neutrality. The Thurstone and Jones (1955) word values were used as measures of language intensity. The treatment conditions were created to meet the following criteria: (1) that the mean value of the three groups differ from each other by at least one z score, and (2) that the groups be statistically different from each other. Table 5 presents a summary of values of the three language intensity treatment conditions.

Inductions and Posttest

Two weeks after the pretest had been administered and the experimental issue had been chosen, Ss were induced to perform the encoding task. The same induction used in Experiment I to urge Ss to encode a message supporting mandatory on-campus living was used in this study.

Ss were then given an envelope containing ten strips of paper, each with an argument typed on it. Each sentence had at least one blank space in it. The Ss were given the choice of two words or phrases to insert in the blank to create the most persuasive message they could. In all treatment conditions Ss were given only words that matched the level of intensity they had been assigned; e.g., Ss in the high intensity condition had a choice of two highly intense words for each sentence.

Table 5. Word values, means, standard deviations, and summary of the analysis of variance of differences of words selected for use in the experimental conditions.

Like extremely	4.16	Very good	2.36	Poor	1.35
Like intensely	4.05	Like quite		Like moderately	1.12
Excellent	3.71	a bit	2.31	OK	.87
Wonderful	3.31	Enjoy	2.21	Average	.86
Terrible	3.09	Highly		Mildly like	.85
Strongly like	2.96	unfavorable	2.16	Not pleasing	.83
Mighty fine	2.88	Bad	2.02	Fair	.78
Like very much	2.90	Preferred	1.96	Acceptable	.73
Especially		Good	1.91	Only fair	.71
good	2.86	Welcome	1.77	Like slightly	.69
Mighty		Pleasing	1.58		
favorable	2.81	Like fairly			
Very bad	2.53	well	1.51		
		Like	1.38		
$\bar{x} = 3.21$		$\bar{x} = 1.92$		$\bar{x} = .88$	
S.D. = .54		S.D. = .33		S.D. = .21	

Analysis of Variance Summary

<u>Source of Variance</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Between treatments	28.57	2	14.28	94.78	<.05
Within treatments	<u>4.37</u>	<u>29</u>	.15		
Total	32.94	31			

$F_{.05, df = 2, 29} = 3.33$

The Ss were told to write the most persuasive word in the blank and to order the arguments to create a total message. After 15 minutes, the Ss were given a blank piece of paper and told to write the message they had created on this page. They were instructed to place their name on this page so that they could receive proper credit for their ideas when the messages were shown to high school students. After another 20 minutes, the messages were collected and the post-encoding questionnaires were distributed. (See Appendix C) This instrument was the same as the post-encoding questionnaire described in Experiment I.

To ensure randomization to the three treatment conditions, the envelopes containing the words with varying levels of language intensity were randomly distributed. The control group was an intact group (N = 15) which only filled out the pretest and post-encoding questionnaire.

Dependent Variable

The dependent variable in this study was pretest through post-encoding attitude change. The Thurstone and Jones-type scale, presented in Figure 2 (Chapter 2), was used to measure subject attitudes.

The instrument also contained items designed to measure Ss' perceptions of the importance of the task, the attitude of the target audience, and the difficulty of the task. The same control variables and manipulation checks that were described in detail in Experiment I were used in this study

Results

Manipulation Checks

Choice. No written measure of perceived choice was obtained. However, in the high intensity condition four subjects refused to participate, one refused in the moderate intensity condition, and no one refused in the low intensity condition.

Audience Attitude. The effectiveness of the audience attitude manipulation was determined by computing the number of individuals in each treatment condition who correctly perceived the experimental induction. A Chi-square test was performed to determine if there were differences in the three experimental conditions. There were no significant differences in the perceptions of the three groups; however, the manipulation was successful as all groups had a majority perceiving the audience attitude as intended (Table 6).

Table 6. Percentage, frequency, and Chi-square test of subjects correctly perceiving audience attitude.

Condition	Correct	Incorrect	χ^2	P
High Intensity	65% (23)	35% (12)		
Moderate Intensity	64% (16)	36% (9)		
Low Intensity	79% (23)	21% (6)	1.90	N.S.

$$\chi^2_{.05, df = 2} = 5.99$$

Difficulty. To determine the amount of difference in perception of task difficulty in the three experimental conditions, a simple analysis of variance was performed. No differences were found in the

experimental conditions. Subjects' mean ratings indicated the task was moderately difficult. The ratings produced a mean of 4.00 in the High Intensity condition, 4.11 in the Moderate and 4.45 in the Low.

Importance. To determine the perception of the importance of the encoding, a simple analysis of variance was performed. No differences were found in the experimental conditions. All experimental groups had mean ratings near the midpoint of the seven-interval scale. The ratings produced a mean of 3.60 in the High Intensity condition, 3.78 in the Moderate and 3.72 in the Low.

Latitude of Acceptance. Mean attitude and latitude of acceptance ratings indicated that all subjects' latitude of acceptance was on the negative side of neutrality. This indicated that the subjects in all three experimental conditions were encoding statements that had been labeled in the pretest as unacceptable. (Table 7)

Table 7. Pretest attitude and latitude of acceptance measures.

Condition	Attitude Mean	Latitude of Acceptance Mean
High Intensity	1.40	1.58
Moderate Intensity	1.47	1.33
Low Intensity	1.27	1.54

Pretest. After random assignment of subjects to experimental and control groups, a simple analysis of variance was performed on the pretest attitude scores to ensure that they were not significantly different. The results of this analysis indicated that the group means did not differ significantly ($F = 1.01$, N.S.).

Table 8. Means and standard deviations for experimental and control groups.

Condition	Mean	S.D.
High Intensity	1.40	.65
Moderate Intensity	1.47	.59
Low Intensity	1.27	.56
Control	1.63	.99

Experimental and Control Differences

Attitude change scores of the experimental and control groups were submitted to a simple analysis of variance. The overall amount of change and analysis of variance results are found in Table 9. The results demonstrated that the four groups differed significantly on amount of posttest attitude change. The specific differences between each experimental group and the control group were computed by means of Scheffe's test. The results of the test indicated that both the High and Moderate Intensity conditions differed significantly from the control group. No significant differences were found between the Low Intensity and Control conditions. (Table 10)

Test of the Hypothesis

The second hypothesis of this study was tested by both a simple analysis of variance and Product-Moment/Eta correlation coefficients. Data were the mean pretest to post-encoding attitude change scores of the experimental subjects using the seven-interval Thurstone and Jones-type scale. The significance level employed for all analyses was .05.

Table 9. Attitude scores, amount of change, and analysis of variance of attitude change scores of experimental and control groups.

Condition	Pretest	Posttest	Change
High Intensity	1.40	3.90	2.50
Moderate Intensity	1.47	3.58	2.11
Low Intensity	1.27	2.64	1.37
Control	1.63	1.91	.28

Source of Variance	SS	df	MS	F	P
Between Treatments	58.85	3	19.62	7.75	<.05
Within Treatments	<u>257.73</u>	<u>102</u>	2.53		
Total	316.58	105			

$F_{.05, \underline{df} = 3, 60,} = 2.76$

Table 10. Analysis of differences of attitude change scores between each experimental and control group.

Condition	Mean	Control
High Intensity	2.50*	.28
Moderate Intensity	2.11*	
Low Intensity	1.37	

*P <.05

The second hypothesis predicted a direct relationship between attitude change and language intensity; specifically:

Given counterattitudinal advocacy by people with similar prior attitudes, the magnitude of attitude change varies directly with the intensity of the counterattitudinal assertion.

Table 11 indicates the amount of pretest through post-encoding attitude change and presents a summary of the analysis of variance for the experimental groups. The results indicate that Hypothesis 2 is supported. Table 12 presents the results of specific comparisons of experimental groups using Scheffe's test. The High and Low Intensity experimental groups are significantly different and the analysis of variance results show support for Hypothesis 2.

As a further test of Hypothesis 2, a Product-Moment correlation coefficient was computed on the relationship between language intensity and attitude change. This analysis yielded an $r = .27$ which is significant ($r_{.05, df = 90} = .17$). To check the linearity of the relationship between language intensity and attitude change, an Eta coefficient was computed. Since the Eta coefficient (.28) was not significantly greater than the Product-Moment coefficient, this established the linearity of the relationship. The correlational analyses are further support for Hypothesis 2.

Supplementary Analyses

In addition to the analyses of attitude change scores, analyses were performed on latitude of acceptance measures.

Table 11. Attitude scores, amount of change, and analysis of variance of attitude change scores of experimental groups.

Condition	Pretest	Posttest	Change
High Intensity	1.40	3.90	2.50
Moderate Intensity	1.47	3.58	2.11
Low Intensity	1.27	2.64	1.37

Source of Variance	SS	df	MS	F	P
Between Treatments	20.92	2	10.46	3.71	<.05
Within Treatments	<u>247.76</u>	<u>88</u>	2.82		
Total	268.68	90			

$F_{.05, df = 2, 60} = 3.15$

Table 12. Analysis of differences of attitude change scores between each experimental group.

Condition	High Intensity	Moderate Intensity	Low Intensity
<u>Means</u>	<u>2.50</u>	<u>2.11</u>	<u>1.37</u>
High Intensity	----	N.S.	2.74*
Moderate Intensity		----	N.S.
Low Intensity			----

*P <.05

Critical $K_{.05, df = 2, 60} = 2.51$

Latitude of Acceptance

Pretest. After random assignment of subjects to experimental and control conditions, a simple analysis of variance was performed to ensure that the groups were not significantly different on pretest latitude of acceptance scores. The analysis indicated no significant differences between groups. (Table 13)

Posttest. Pretest through posttest latitude of acceptance change scores were analyzed by a simple analysis of variance. The results indicated no differences in latitude of acceptance between groups. (Table 14)

Table 13. Latitude of acceptance means, standard deviations, and analysis of variance of pretest latitude of acceptance scores for experimental and control groups.

Condition	Mean	S.D.
High Intensity	1.58	1.00
Moderate Intensity	1.33	.79
Low Intensity	1.54	.59
Control	1.41	.94

Source of Variance	SS	df	MS	F	P
Between Treatments	1.14	3	.38	<1	N.S.
Within Treatments	<u>72.40</u>	<u>102</u>	.71		
Total	73.54	105			

$F_{.05, df = 3, 60} = 2.76$

Table 14. Latitude of acceptance scores, amount of change, and analysis of variance of latitude of acceptance change scores of experimental and control groups.

Condition	Pretest	Posttest	Change
High Intensity	1.58	1.95	.37
Moderate Intensity	1.33	1.61	.28
Low Intensity	1.54	1.60	.06
Control	1.41	1.82	.41

Source of Variance	SS	df	MS	F	P
Between Treatments	3.28	3	1.10	1.56	N.S.
Within Treatments	<u>71.52</u>	<u>102</u>	.70		
Total	74.80	105			

$F_{.05, \underline{df} = 3, 60} = 2.76$

CHAPTER IV

DISCUSSION

Research on counterattitudinal advocacy has generally demonstrated that a person who encodes a belief-discrepant message will shift his attitude to more closely conform to the advocated position. As a result of the emphasis placed on attitude change as the primary dependent variable, little attention has been given to the encoded message, nor has prior research manipulated the possible messages to predict attitude change. The purpose of this investigation was twofold: (1) to examine the effects of counterattitudinal encoding on message style, and (2) to investigate ways in which encoding situations can be constructed to predict the magnitude of attitude change resulting from counterattitudinal advocacy.

Prior research by Festinger and Carlsmith (1959); Rosenberg (1965); Carlsmith, Collins, and Helmreich (1966); and Linder, Cooper, and Jones (1967) all analyzed supposedly belief-discrepant messages. All used some overall evaluation of persuasiveness or quality. The researchers consistently failed to find any significant message differences among belief-discrepant treatment groups. Also, no evidence was found that any message measure was correlated with posttest attitudes. The support of the two theoretical hypotheses in this study provide suggestions for another approach to the analysis of counterattitudinal messages.

Hypothesis 1 predicted that persons encoding a counterattitudinal message would use significantly less intense language than persons encoding a belief-congruent message. All of the prior research has neglected to compare belief-congruent messages with counterattitudinal messages. It was reasoned that even though prior gross evaluations of belief-discrepant messages have been disappointing, the stress associated with counterattitudinal advocacy might produce effects on message style. Consistent with this reasoning, the results of the study indicate that people do encode less intense messages when committing belief-discrepant behavior.

Given this support for Hypothesis 1, it would be useful to compare the Festinger and Carlsmith (1959) rating of persuasiveness of belief-discrepant messages with belief-congruent messages on the same issue. Similar congruent-discrepant comparisons could be made on Carlsmith, Collins, and Helmreich's (1966) measure of positiveness.

Since none of the prior research manipulated language intensity, this study also sought to determine the relationship between how strongly a person argues against a position he privately holds and the magnitude of his attitudinal shift toward the advocated position. Hypothesis 2 predicted a direct relationship between the intensity of a counterattitudinal assertion and the magnitude of subsequent attitude change. The support of this hypothesis is encouraging. The results indicated that forcing a person to strongly advocate a belief-discrepant position resulted in significant attitude change. Moreover, although the widths of the latitude of acceptance showed no significant post-encoding changes among the experimental groups, the nature of the acceptable statements

changed. For example, prior to the experiment the average individual in the High Intensity encoding condition held the attitude that mandatory on-campus living was terrible and accepted that it was bad and poor. After encoding a belief-discrepant message he claimed to be neutral toward on-campus residency, but could accept that it was poor and fair. Thus with the large attitudinal shifts and the maintenance of latitudes of acceptance nearly two scale units wide, the nature of acceptable statements following counterattitudinal advocacy was different.

In Experiment I, there was no difference in pretest through post-encoding attitude change between the belief-congruent and belief-discrepant encoding conditions. In Experiment II, the low language intensity condition did not differ significantly from a control group. Taken together this evidence suggests that there may be a threshold of assertion intensity below which attitude change does not occur. These findings suggest possible reasons why some counterattitudinal advocacy studies (Siegel, 1969; Janis and Gilmore, 1965; Miller and Rodaken, 1969) have failed to report significant attitude change following belief-discrepant encoding. The results suggest that if persons encode messages below a certain threshold of intensity, attitude change may not occur. Unfortunately, prior research has not systematically investigated the messages produced to specify the level of language intensity used.

Also, the clear establishment of such a threshold is not produced by the data of these two experiments. In the first experiment, subjects used moderately intense language and did not demonstrate significant

attitudinal shifts; however, the moderate intensity group in the second experiment showed a significant attitude change. A planned replication of these experiments will make a methodological change to attempt to resolve these conflicting outcomes. The second experiment in this study required more effort of the subjects, as each subject had to write out the entire message from an assortment of arguments. In the first experiment the subjects only had to write the words in the blanks. Thus, effort required to commit counterattitudinal behavior might have confounded the results when comparing attitude change across the two experiments. The replication will have one experimental situation with more categories of language intensity. This should allow the establishment of a threshold of language intensity above which attitude change would be expected to occur.

As discussed by Burgoon (1969a), Miller (1969), and Tate (1970), the research on counterattitudinal advocacy has often reported conflicting results. This study suggests a possible reason for the conflicting findings. One can speculate that the differences in message intensity across studies might have resulted in differential magnitudes of attitude change. For example, subjects in the low reward condition of Festinger and Carlsmith (1959) might have encoded more highly intense messages than did the low reward subjects in the study by Elms and Janis (1965). No objective measure has been used to evaluate messages produced in different research situations. Using the procedures employed in this study, message intensity can be controlled to allow a more precise estimate of the variance in attitude change accounted for by variables of interest to counterattitudinal advocacy researchers.

This procedure could ensure that the assertions were comparable in intensity and prevent this message variable from confounding the effects of other manipulations, thus reducing the apparent theoretical conflict reported in the literature.

At the present time, seven studies are in progress to investigate variables that have led to conflicting findings. Since this procedure worked successfully in these two experiments, it is being used with some modification in the seven studies. In order to prevent subjects from being sensitized by having to use the same words in the encoding task that anchored the attitude scale, the attitude scale anchors have been deleted as possible choices in the pre-constructed sentences.

All of the seven studies have high and low intensity encoding conditions while manipulating justification, effort, commitment, audience attitude, choice, type of encoding, and publicness of the counterattitudinal encoding behavior. Such a compendium of studies could help resolve some of the present theoretical conflict. These studies ensure that the messages are at a prescribed level of intensity in a variety of research situations. Thus, all subjects in these studies will encode a comparable message under different experimental conditions. Hopefully, this will allow estimates of the variance in attitude change accounted for by a number of potentially relevant variables.

The data seem to be generally supportive of dissonance theory predictions while providing evidence that questions the propositions advanced by assimilation-contrast theory. Sherif and Sherif (1967) posit a curvilinear relationship between the amount of change advocated and the magnitude of demonstrated attitude change. Sherif, Sherif, and

Nebergall (1965) argue that maximal attitude change occurs when the argument is near the person's boundary of latitude of acceptance. The findings of this study indicate that maximal attitude change occurred when the distance between prior attitude and the intensity of the counterattitudinal assertion is greatest. These findings question the extent to which assimilation-contrast propositions about the standard persuasion process apply to the counterattitudinal advocacy paradigm.

Research Implications

Why study the counterattitudinal encoding situation? First, in many everyday situations, people are induced to say and do things that are not in accord with their private beliefs. A manager is required to discipline an employee for violating a policy that the manager does not believe is fair, under White House pressure a Senator endorses a Southern jurist, a college professor who opposes grading publicly defends grading on the curve. The common element in all of these situations is that people are playing social roles that would not be predicted based only on knowledge of their private beliefs. It would seem logical that such situations should (1) result in differences from an individual's more normal encoding behavior, and (2) should affect a change in his private beliefs. The present study begins to specify some of the probable differences.

It appears that an encoder's prior attitudes affect how and what he writes. From the results of this study, one can conclude that to the extent that decreased language intensity produces a less desirable message, prior attitude should be considered when inducing people to encode specific messages. McEwen and Greenberg (1969) reported lower

evaluations of the message source when receivers rated messages employing low intensity language. Thus it seems that decreased language intensity could reduce the probability of a message having a desired impact.

Future research should compare the extent to which professional encoders (speech writers, reporters, editorial writers) behave similarly to business writing students. A future study should investigate the relative persuasive impact of messages produced under counterattitudinal and belief-congruent encoding conditions.

Summary

Two separate experiments were conducted to test the following hypotheses: (1) Persons who encode a counterattitudinal message will use language of significantly lower intensity than persons who encode a belief-congruent message, and (2) Given counterattitudinal advocacy by people with similar prior attitudes, the magnitude of attitude change varies directly with the intensity of the counterattitudinal assertion.

The same general procedures were used in both experiments. Language intensity scores were computed by summing the values (Thurstone and Jones, 1955) of words selected to complete partially pre-constructed sentences. Attitudes were measured by a seven-interval scale anchored by words assigned weights by Thurstone and Jones (1955).

The findings support both theoretical hypotheses. Although both groups in Experiment I encoded moderately intense messages, the Belief-Congruent condition had a mean intensity score significantly greater than the Belief-Discrepant condition. In Experiment II the results indicated a significant direct relationship between the intensity of a counterattitudinal assertion and subsequent attitude change.

Findings were discussed in terms of prior research in counterattitudinal advocacy. A number of research extensions, suggested by the findings of this study, were discussed.

REFERENCES

References

- Ashmore, R.D. and B.E. Collins Studies in forced compliance: X. Attitude change and commitment to maintain publicly a counter-attitudinal position. Psychological Reports, 1968, 22, 1229-1234.
- Bettinghaus, E.P. and I. Preston Dogmatism and performance of the communicator under stress. Journalism Quarterly, 1964, 41, 399-402.
- Bodaken, E.M. Choice and perceived audience attitude as determinants of cognitive dissonance and subsequent attitude change following counterattitudinal advocacy. Unpublished Dissertation, Michigan State University, 1970.
- Bowers, J.W. Language intensity, social introversion, and attitude change. Speech Monographs, 1963, 30, 345-352.
- Bowers, J.W. Some correlates of language intensity. Quarterly Journal of Speech, 1964, 50, 415-420.
- Burgoon, M. The analysis of counterattitudinal messages. Unpublished paper, Michigan State University, 1969a.
- Burgoon, M. The effects of selected encoding situations on source attitudes. Unpublished paper, Michigan State University, 1969b.
- Carlsmith, J.M., B.E. Collins and R.L. Helmreich Studies in forced compliance: I. The effect of pressure for compliance on attitude change produced by face-to-face role playing and anonymous essay writing. Journal of Personality and Social Psychology, 1966, 4, 1-13.
- Cliff, N. Adverbs as modifiers. Psychological Review, 1959, 66, 27-44.
- Collins, B.E. Studies in forced compliance: III and VIII. The effect of true-persuasive instructions, public-private essays and financial inducement on attitude change produced by forced compliance. Unpublished mimeographed paper, U.C.L.A., 1968.
- DeQuincey, Thomas Collected Works. (David Masson, ed.) Edinburgh, 1890, 10, p. 220.

- Diedrich, G.W., S.J. Messick and L.R. Tucker A general least squares solution for successive intervals. Psychometrika, 1957, 22, 159-173.
- Elms, A. and I. Janis Counter-norm attitudes induced by consonant versus dissonant conditions of role-playing. Journal of Experimental Research in Personality, 1965, 1, 50-60.
- Festinger, L. A Theory of Cognitive Dissonance. Evanston, Ill.: Row, Peterson, 1957.
- Festinger, L. and J.M. Carlsmith Cognitive consequences of forced compliance. Journal of Abnormal and Social Psychology, 1959, 58, 203-210.
- Greenberg, B.S. Performance and message consequences of encoding behavior under cognitive stress. Unpublished Doctoral Dissertation, University of Wisconsin, 1960.
- Greenberg, B.S. and P.H. Tannenbaum Communicator performance under cognitive stress. Journalism Quarterly, 1962, 39, 169-175.
- Gulliksen, H. and L.R. Tucker A general procedure for obtaining paired comparisons from multiple rank orders. Psychometrika, 1961, 26, 173-183.
- Hayakawa, S.I. Language and Thought In Action. New York: Harcourt, Brace and Company, 1949.
- Helmreich, R.L. and B.E. Collins Studies in forced compliance: Commitment and magnitude of inducement to comply as determinants of opinion change. Journal of Personality and Social Psychology, 1968, 10, 75-81.
- Hovland, C., I. Janis and H. Kelley Communication and Persuasion. New Haven: Yale University Press, 1953.
- Howe, E.S. Probabilistic adverbial qualification of adjectives. Journal of Verbal Learning and Verbal Behavior, 1962, 1, 225-241.
- Howe, E.S. Verb tense, negatives, and other determinants of the intensity of evaluative meaning. Journal of Verbal Learning and Verbal Behavior, 1966, 5, 147-155.
- Janis, I. and B. Gilmore The influence of incentive conditions on the success of role playing in modifying attitudes. Journal of Personality and Social Psychology, 1965, 49, 211-218.
- Janis, I. and B. King The influence of role playing on opinion change. Journal of Abnormal and Social Psychology, 1954, 49, 211-218.

- King, B. and I. Janis Comparison of the effectiveness of improvised versus non-improvised role-playing in producing opinion change. Human Relations, 1956, 9, 177-186.
- Lazarus, R.S., J. Deese and S.F. Osler The effects of psychological stress upon performance. Psychological Bulletin, 1952, 49, 293-317.
- Lilly, R.S. Multiplying values of intensive, probabilistic, and frequency adverbs when combined with potency adjectives. Journal of Verbal Learning and Verbal Behavior, 1968a, 7, 854-858.
- Lilly, R.S. The qualification of evaluative adjectives by frequency adverbs. Journal of Verbal Learning and Verbal Behavior, 1968b, 7, 333-336.
- Linder, D.E., J. Cooper and E.E. Jones Decision freedom as a determinant of the role of incentive magnitude in attitude change. Journal of Personality and Social Psychology, 1967, 6, 245-254.
- McEwen, W.J. Counter-attitudinal encoding effects on message style and performance. Unpublished Doctoral Dissertation, Michigan State University, 1969.
- McEwen, W.J. and B.S. Greenberg Effects of communication assertion intensity. Journal of Communication, 1969, 19, 257-265.
- McGuire, W.J. Inducing resistance to persuasion. In L. Berkowitz (Ed.), Advances in Experimental Social Psychology, Vol. 1, New York: Academic Press, 1964, Pp. 191-229.
- Miller, G.R. Some problems in prior research on justification and self-persuasion. An unpublished paper, Michigan State University, 1969.
- Miller, G.R. and E.M. Bodaken Justification and self-persuasion following commitment to encode, and actual encoding of counterattitudinal communication: A replication and extension. Paper presented to Speech Association of America, New York, December, 1969.
- Miller, G.R. and R.L. McGraw Justification and self-persuasion following commitment to encode and actual encoding of counterattitudinal communication. Speech Monographs, 1969, 36, 443-451.
- Moreno, J.L. Psychodrama, Vol. 1. New York: Beacon House, 1946.
- Ogden, C.K. and I.A. Richards The Meaning of Meaning, 10th Edition, New York: Harcourt, Brace and World, Inc., 1952, p. 239.
- Osgood, C.E., S. Saporta and J.C. Nunnally Evaluative assertion analysis. Litera, 1956, 3, 47-102.

- Osgood, C.E. and P.H. Tannenbaum The principle of congruity and the prediction of attitude change. Psychological Review, 1955, 62, 42-55.
- Osgood, C.E. and E.G. Walker Motivation and language behavior: A content analysis of suicide notes. Journal of Abnormal and Social Psychology, 1959, 59, 58-67.
- Rosenberg, M.J. When dissonance fails: On eliminating evaluation apprehension from attitude measurement. Journal of Personality and Social Psychology, 1965, 1, 28-42.
- Sherif, M. and C.W. Sherif Attitude, Ego-Involvement, and Change, New York: Wiley, 1957, Pp. 105-140.
- Sherif, M., C.W. Sherif and R.E. Nebergall Attitude and Attitude Change, Philadelphia: Saunders, 1965.
- Tate, E. Deception and role play in counterattitudinal advocacy research, Unpublished paper, Michigan State University, 1970.
- Thurstone, L.L. and L.V. Jones The psychophysics of semantics: An experimental investigation. Journal of Applied Psychology, 1955, 39, 31-39.
- Zimbardo, P.G. The effect of effort and improvisation on self-persuasion produced by role-playing. Journal of Experimental Social Psychology, 1965, 1, 103-120.

APPENDICES

APPENDIX A

PRETEST ATTITUDE QUESTIONNAIRE

MICHIGAN STATE UNIVERSITY STUDENT
OPINION PROFILE

NAME _____ STUDENT NUMBER _____
COURSE _____ SECTION _____ INSTRUCTOR _____

Communication 101 at Michigan State University is attempting to solicit the opinions of students in many colleges on a variety of current issues--campus and national--which may serve as the foci of a problem analysis. On each of the following pages you will find a number of issues followed by a series of scales.

PLEASE READ THE INSTRUCTIONS ON COMPLETING THESE SCALES VERY CAREFULLY.

For example, if you think that it would be an EXCELLENT idea for all universities to establish Black Studies programs, you would mark the following scale by placing an "A" above the word Excellent.

"All universities and colleges should establish Black Studies programs"

A : _ : _ : _ : _ : _
<div style="display: flex; justify-content: space-around; padding: 0;"> Excellent Good Fair Neutral Poor Bad Terrible </div>

If you thought it was only a GOOD idea you would place an "A" above the word Good and so on for each word choice. We want you to mark the word that BEST represents your feelings toward the statement.

Now go back to the scale above and consider ALL of the word choices. Please mark every word that you can agree with by placing an "X" above that word. For example, if you felt the Black Studies statement was EXCELLENT, you might also agree that it was GOOD and FAIR. If this were the case you would mark the scale as follows:

A : X : X : _ : _ : _
<div style="display: flex; justify-content: space-around; padding: 0;"> Excellent Good Fair Neutral Poor Bad Terrible </div>

Again, please place an "A" above the word that BEST indicates your feeling about the statement. Then place an "X" above every other word choice you can agree with:

The use and possession of marijuana should be legalized.

:	:	:	:	:	:	:
_____	_____	_____	_____	_____	_____	_____
Excellent	Good	Fair	Neutral	Poor	Bad	Terrible

Draft deferments should be eliminated for college students.

:	:	:	:	:	:	:
_____	_____	_____	_____	_____	_____	_____
Terrible	Bad	Poor	Neutral	Fair	Good	Excellent

The required University College "Basic Courses" should be eliminated.

:	:	:	:	:	:	:
_____	_____	_____	_____	_____	_____	_____
Terrible	Bad	Poor	Neutral	Fair	Good	Excellent

All students should be required to live on campus during their college attendance.

:	:	:	:	:	:	:
_____	_____	_____	_____	_____	_____	_____
Excellent	Good	Fair	Neutral	Poor	Bad	Terrible

Psychological testing should be used to determine a student's academic major.

:	:	:	:	:	:	:
_____	_____	_____	_____	_____	_____	_____
Excellent	Good	Fair	Neutral	Poor	Bad	Terrible

Now, here is another set of scales on the SAME issues. THE INSTRUCTIONS FOR USING THESE SCALES ARE DIFFERENT SO PLEASE READ THE FOLLOWING VERY CAREFULLY:

You will find several statements followed by several scales. Please mark each scale in the blank that BEST represents how you feel. For example, here is an item like those you will see:

The United States should withdraw from the United Nations.

Bad ____ : ____ : ____ : ____ : ____ : ____ : ____ Good

Your job is to place a check-mark (X) above the line that best indicates your judgment about the proposition. For example, if you feel that U.S. withdrawal would be very bad, you would check as follows:

Bad X : ____ : ____ : ____ : ____ : ____ : ____ Good

If you feel that such a move (withdrawal) would be quite bad, you should check as follows:

Bad ____ : X : ____ : ____ : ____ : ____ : ____ Good

If you feel neutral or indifferent about the proposition, or if you feel that the scale is irrelevant to the proposition, you would check as follows:

Bad ____ : ____ : ____ : X : ____ : ____ : ____ Good

Remember: Never put more than one check-mark on a single scale and be sure that each check is in the middle of the line, not on the boundaries.

WORK RAPIDLY --- RECORD FIRST IMPRESSIONS --- DO NOT CHANGE MARKS

PLACE ONE "X" ON EACH SCALE.

The use and possession of marijuana should be legalized.

Good _____ : _____ : _____ : _____ : _____ : _____ : _____ Bad
 Worthless _____ : _____ : _____ : _____ : _____ : _____ : _____ Valuable
 Pleasant _____ : _____ : _____ : _____ : _____ : _____ : _____ Unpleasant
 Unfair _____ : _____ : _____ : _____ : _____ : _____ : _____ Fair

Draft deferments should be eliminated for college students.

Good _____ : _____ : _____ : _____ : _____ : _____ : _____ Bad
 Unfair _____ : _____ : _____ : _____ : _____ : _____ : _____ Fair
 Worthless _____ : _____ : _____ : _____ : _____ : _____ : _____ Valuable
 Pleasant _____ : _____ : _____ : _____ : _____ : _____ : _____ Unpleasant

All universities and colleges should establish Black Studies programs.

Unpleasant _____ : _____ : _____ : _____ : _____ : _____ : _____ Pleasant
 Bad _____ : _____ : _____ : _____ : _____ : _____ : _____ Good
 Fair _____ : _____ : _____ : _____ : _____ : _____ : _____ Unfair
 Valuable _____ : _____ : _____ : _____ : _____ : _____ : _____ Worthless

All students should be required to live on campus during their college attendance.

Valuable _____ : _____ : _____ : _____ : _____ : _____ : _____ Worthless
 Good _____ : _____ : _____ : _____ : _____ : _____ : _____ Bad
 Unfair _____ : _____ : _____ : _____ : _____ : _____ : _____ Fair
 Pleasant _____ : _____ : _____ : _____ : _____ : _____ : _____ Unpleasant

Psychological testing should be used to determine a student's academic major.

Good _____:_____:_____:_____:_____:_____ Bad

Worthless _____:_____:_____:_____:_____:_____ Valuable

Unpleasant _____:_____:_____:_____:_____:_____ Pleasant

Fair _____:_____:_____:_____:_____:_____ Unfair

APPENDIX B

EXPERIMENT I MATERIALS

Dear Student:

For the past several months, the Center for Opinion Research at Michigan State University has been conducting research aimed at finding out what it takes to strengthen or change people's attitudes. What we do is get some indication of the attitudes people have on certain issues and then, at some later date, we present certain arguments in the form of speeches, essays, debates -- various methods -- which are designed to get them to change or strengthen their attitudes.

Let me explain briefly what we are attempting to do in the research that you will be helping us with. Sometime ago we administered questionnaires to students enrolled in the Lansing-East Lansing Area High Schools asking them their attitudes toward the policy of required on-campus living for college students. That is, we were interested in their opinions on the issue of whether or not college students should be required to live on campus during their attendance at college. Analysis of the questionnaires indicate that these students are generally UNDECIDED on the issue.

We then asked over 500 Michigan State University students to write persuasive messages to reject a policy that would require students to live on campus while attending the University. You will soon be given the arguments that students like you created. It is even possible that some of you helped in this original research effort. We found that the arguments produced were similar in content. HOWEVER, OUR ANALYSIS OF THE PERSUASIVE EFFECT OF THESE MESSAGES INDICATES THAT CERTAIN WORDS ARE THE MOST IMPORTANT IN CHANGING THESE STUDENT'S ATTITUDES.

Thus, in preparing your persuasive messages it is very important for you to choose what you feel are the most persuasive words. It is important that you select the words you think will be successful for we feel that all of our effort to date depends on your choice of the persuasive words. Think about the choices and try to decide which word in each argument might be best used to change attitudes. Also the order of the arguments is important and we want you to think about what order of presentation might be most effective.

This part of the research is very important to the successful completion of the project. We want to thank all of you for helping us create messages that we will show to high school students in an attempt to change their attitudes toward on-campus living. Remember we want you to persuade the students to reject mandatory on-campus living.

Thanks again,

Gerald R. Miller, Ph.D.
Professor and Research Director

PERSUASIVE WORDS

PLEASE USE WHAT YOU FEEL ARE THE MOST APPROPRIATE WORDS TO FILL IN THE BLANKS IN THIS MESSAGE INTENDED TO OPPOSE THE POLICY OF MANDATORY ON-CAMPUS LIVING:

TERRIBLE
DISLIKE
DISLIKE SLIGHTLY
POOR
STRONGLY DISLIKE
DON'T CARE FOR IT
NOT PLEASING
DESPISE
LIKE NOT SO MUCH
DISLIKE EXTREMELY
DISLIKE VERY MUCH
VERY BAD
BAD
LIKE NOT SO WELL
DISLIKE MODERATELY
MILDLY DISLIKE
HIGHLY UNFAVORABLE
DON'T LIKE
DISLIKE INTENSELY
LOATH

Dear Student:

For the past several months, the Center for Opinion Research at Michigan State University has been conducting research aimed at finding out what it takes to strengthen or change people's attitudes. What we do is get some indication of the attitudes people have on certain issues and then, at some later date, we present certain arguments in the form of speeches, essays, debates -- various methods -- which are designed to get them to change or strengthen their attitudes.

Let me explain briefly what we are attempting to do in the research that you will be helping us with. Sometime ago we administered questionnaires to students enrolled in the Lansing-East Lansing Area High Schools asking them their attitudes toward the policy of required on-campus living for college students. That is, we were interested in their opinions on the issue of whether or not college students should be required to live on campus during their attendance at college. Analysis of the questionnaires indicate that these students are generally UNDECIDED on the issue.

We then asked over 500 Michigan State University students to write persuasive messages to support a policy that would require students to live on campus while attending the University. You will soon be given the arguments that students like you created. It is even possible that some of you helped in this original research effort. We found that the arguments produced were similar in content. HOWEVER, OUR ANALYSIS OF THE PERSUASIVE EFFECT OF THESE MESSAGES INDICATES THAT CERTAIN WORDS ARE THE MOST IMPORTANT IN CHANGING THESE STUDENT'S ATTITUDES.

Thus, in preparing your persuasive messages it is very important for you to choose what you feel are the most persuasive words. It is important that you select the words you think will be successful for we feel that all of our effort to date depends on your choice of the persuasive words. Think about the choices and try to decide which word in each argument might be best used to change attitudes. Also the order of the arguments is important and we want you to think about what order of presentation might be most effective.

This part of the research is very important to the successful completion of the project. We want to thank all of you for helping us create messages that we will show to high school students in an attempt to change their attitudes toward on-campus living. Remember we want you to persuade the students to support mandatory on-campus living.

Thanks again,

Gerald R. Miller, Ph.D.
Professor and Research Director

PERSUASIVE WORDS

PLEASE USE WHAT YOU FEEL ARE THE MOST APPROPRIATE WORDS TO FILL IN THE BLANKS IN THIS MESSAGE INTENDED TO SUPPORT THE POLICY OF MANDATORY ON-CAMPUS LIVING:

GOOD
OK
EXCELLENT
PLEASING
MILDLY LIKE
LIKE EXTREMELY
BEST OF ALL
STRONGLY LIKE
WONDERFUL
LIKE INTENSELY
ESPECIALLY GOOD
TASTY
PREFERRED
LIKE FAIRLY WELL
LIKE MODERATELY
LIKE QUITE A BIT
LIKE
LIKE VERY WELL
WELCOME
MIGHTY FINE
AVERAGE
LIKE SLIGHTLY
FAIR
ACCEPTABLE
ENJOY
ONLY FAIR
MIGHTY FAVORABLE
FAVORITE
LIKE VERY MUCH
VERY GOOD

I _____ the idea of mandatory on-campus living during

college attendance. Forcing students to live on campus can be a (an)

_____ experience for them in many cases. It can be a

_____ social experience for a person to take housing in

which organized social functions are a part of the living program.

Such organized social functions are usually _____ experi-

ences. The living facilities offered on-campus are usually _____

_____. I think any high school student would be demonstrating

_____ judgment by living on campus. Mandatory on-campus

living would be a _____ idea for the University as a whole

and most people _____ such an idea. People who do live

on-campus during their college attendance usually _____

the activities and functions offered. All in all, it is a (an) _____

_____ experience to live on campus while attending the University.

APPENDIX C

EXPERIMENT II MATERIALS

Dear Student:

For the past several months, the Center for Opinion Research at Michigan State University has been conducting research aimed at finding out what it takes to strengthen or change people's attitudes. What we do is get some indication of the attitudes people have on certain issues and then, at some later date, we present certain arguments in the form of speeches, essays, debates -- various methods -- which are designed to get them to change or strengthen their attitudes.

Let me explain briefly what we are attempting to do in the research that you will be helping us with. Sometime ago we administered questionnaires to students enrolled in the Lansing-East Lansing Area High Schools asking them their attitudes toward the policy of required on-campus living for college students. That is, we were interested in their opinions on the issue of whether or not college students should be required to live on campus during their attendance at college. Analysis of the questionnaires indicate that these students are generally UNDECIDED on the issue.

We then asked over 500 Michigan State University students to write persuasive messages to support a policy that would require students to live on campus while attending the University. You will soon be given the arguments that students like you created. It is even possible that some of you helped in this original research effort. We found that the arguments produced were similar in content. HOWEVER, OUR ANALYSIS OF THE PERSUASIVE EFFECT OF THESE MESSAGES INDICATES THAT CERTAIN WORDS ARE THE MOST IMPORTANT IN CHANGING THESE STUDENT'S ATTITUDES.

Thus, in preparing your persuasive messages it is very important for you to choose what you feel are the most persuasive words. It is important that you select the words you think will be successful for we feel that all of our effort to date depends on your choice of the persuasive words. Think about the choices and try to decide which word in each argument might be best used to change attitudes. Also the order of the arguments is important and we want you to think about what order of presentation might be most effective.

This part of the research is very important to the successful completion of the project. We want to thank all of you for helping us create messages that we will show to high school students in an attempt to change their attitudes toward on-campus living. Remember we want you to persuade the students to support mandatory on-campus living.

Thanks again,

Gerald R. Miller, Ph.D.
Professor and Research Director

INSTRUCTIONS

1. You are being given a set of arguments that students on this campus have created favoring the policy of mandatory on-campus living. Each argument has one or more sets of words that tend to be critical determinants of attitude change. Please go through ALL of the arguments and select the words THAT YOU FEEL WOULD BE MOST PERSUASIVE.
2. From the word choices, select the word you feel is most appropriate and WRITE it in the blank space.
3. Think about your choices and how high school students might react. We want you to create the most persuasive message you possibly can.
4. Now place the arguments in the ORDER OF PRESENTATION THAT YOU THINK WOULD BE MOST PERSUASIVE.
5. When you have made all the word selections and ordered the arguments, read the entire message that you have created. When YOU ARE SATISFIED WITH YOUR WORK, PLEASE RAISE YOUR HAND.....

PRE-CONSTRUCTED SENTENCES

High Intensity Condition

I think any high school student would be making a _____ mistake if he did not expose himself to the many ideas, attitudes, and values one finds in university housing.

PERSUASIVE WORD CHOICES: VERY BAD
TERRIBLE

It would be _____ for students to miss the experience of living with many different kinds of people.

PERSUASIVE WORD CHOICES: VERY BAD
TERRIBLE

All in all, it is a(an) _____ experience to live on campus while attending the university.

PERSUASIVE WORD CHOICES: EXCELLENT
WONDERFUL

I _____ the idea of mandatory on-campus living during college attendance.

PERSUASIVE WORD CHOICES: LIKE EXTREMELY
LIKE INTENSELY

People who live on campus during their college attendance usually _____ the opportunity to meet new people and do different things.

PERSUASIVE WORD CHOICES: LIKE VERY MUCH
STRONGLY LIKE

To be in an environment where a person will be subject to new ideas constantly is _____.

PERSUASIVE WORD CHOICES: EXCELLENT
WONDERFUL

It can also be a(an) _____ social experience for a person to take housing in which he has opportunities to engage in organized functions.

PERSUASIVE WORD CHOICES: WONDERFUL
EXCELLENT

Also, on-campus living offers (B1) _____ programs such as intramurals that can be (B2) _____ learning experiences for students.

PERSUASIVE WORD CHOICES: (B1) MIGHTY FAVORABLE, MIGHTY FINE
(B2) EXCELLENT, WONDERFUL

It is generally agreed that on-campus housing offers recreation facilities that are _____.

PERSUASIVE WORD CHOICES: EXCELLENT
ESPECIALLY GOOD

I personally _____ the concept of living on campus and becoming involved with the many events a university has to offer.

PERSUASIVE WORD CHOICES: LIKE INTENSELY
LIKE EXTREMELY

I _____ on-campus living because it makes the person a more well-rounded individual.

PERSUASIVE WORD CHOICES: STRONGLY LIKE
LIKE VERY MUCH

PRE-CONSTRUCTED SENTENCES

Moderate Intensity Condition

I think any high school student would be making a _____ mistake if he did not expose himself to the many ideas, attitudes, and values one finds in university housing.

PERSUASIVE WORD CHOICES: BAD
HIGHLY UNFAVORABLE

It would be _____ for students to miss the experience of living with many different kinds of people.

PERSUASIVE WORD CHOICES: BAD
HIGHLY UNFAVORABLE

All in all, it is a(an) _____ experience to live on campus while attending the university.

PERSUASIVE WORD CHOICES: GOOD
PLEASING

I _____ the idea of mandatory on-campus living during college attendance.

PERSUASIVE WORD CHOICES: LIKE
LIKE FAIRLY WELL

People who live on campus during their college attendance usually _____ the opportunity to meet new people and do different things.

PERSUASIVE WORD CHOICES: ENJOY
WELCOME

To be in an environment where a person will be subject to new ideas constantly is _____.

PERSUASIVE WORD CHOICES: GOOD
WELCOME

It can also be a(an) _____ social experience for a person to take housing in which he has opportunities to engage in organized functions.

PERSUASIVE WORD CHOICES: GOOD
VERY GOOD

Also, on-campus living offers (B1) _____ programs such as intramurals that can be (B2) _____ learning experiences for students.

PERSUASIVE WORD CHOICES: (B1) GOOD, WELCOME
(B2) VERY GOOD, PREFERRED

It is generally agreed that on-campus housing offers recreation facilities that are _____.

PERSUASIVE WORD CHOICES: GOOD
PREFERRED

I personally _____ the concept of living on campus and becoming involved with the many events a university has to offer.

PERSUASIVE WORD CHOICES: LIKE FAIRLY WELL
LIKE QUITE A BIT

I _____ on-campus living because it makes the person a more well-rounded individual.

PERSUASIVE WORD CHOICES: LIKE QUITE A BIT
ENJOY

PRE-CONSTRUCTED SENTENCES

Low Intensity Condition

I think any high school student would be making a _____ mistake if he did not expose himself to the many ideas, attitudes, and values one finds in university housing.

PERSUASIVE WORD CHOICES: NOT PLEASING
POOR

It would be _____ for students to miss the experience of living with many different kinds of people.

PERSUASIVE WORD CHOICES: POOR
NOT PLEASING

All in all, it is a(an) _____ experience to live on campus while attending the university.

PERSUASIVE WORD CHOICES: OK
ACCEPTABLE

I _____ the idea of mandatory on-campus living during college attendance.

PERSUASIVE WORD CHOICES: LIKE MODERATELY
LIKE SLIGHTLY

People who live on campus during their college attendance usually _____ the opportunity to meet new people and do different things.

PERSUASIVE WORD CHOICES: MILDLY LIKE
LIKE SLIGHTLY

To be in an environment where a person will be subject to new ideas constantly is _____.

PERSUASIVE WORD CHOICES: OK
FAIR

It can also be a(an) _____ social experience for a person to take housing in which he has opportunities to engage in organized functions.

PERSUASIVE WORD CHOICES: FAIR
ONLY FAIR

Also, on-campus living offers (B1) _____ programs such as intramurals that can be (B2) _____ learning experiences for students.

PERSUASIVE WORD CHOICES: (B1) ACCEPTABLE, AVERAGE
(B2) FAIR, ONLY FAIR

It is generally agreed that on-campus housing offers recreation facilities that are _____.

PERSUASIVE WORD CHOICES: ACCEPTABLE
AVERAGE

I personally _____ the concept of living on campus and becoming involved with the many events a university has to offer.

PERSUASIVE WORD CHOICES: MILDLY LIKE
LIKE SLIGHTLY

I _____ on-campus living because it makes the person a more well-rounded individual.

PERSUASIVE WORD CHOICES: LIKE SLIGHTLY
LIKE MODERATELY

NAME _____

Now please refer to the cards you have. We want you to write the total message AS YOU HAVE CREATED IT. Remember this is your message and we will want to present it to the students who are UNDECIDED on the issue of mandatory on-campus living. We hope our efforts to change their attitudes to SUPPORT such a policy will be successful with your help. Please be sure your name is on this sheet so that we give you credit for your ideas.

APPENDIX D

POSTTEST ATTITUDE QUESTIONNAIRE

IMPORTANCE RATINGS

AUDIENCE ATTITUDE RATINGS

TASK DIFFICULTY RATINGS

NAME _____

STUDENT NUMBER _____

SECTION NUMBER _____

Now, we would like to get your opinion on the issue of whether or not students should be expected to live on campus during their attendance at the University.

Please read these instructions very carefully as this is the same type of questionnaire that we gave to the high school students and we want to be able to score it in the same way.

Please consider the following example:

All colleges should establish BLACK STUDIES PROGRAMS.

_____ This is an excellent idea.

_____ This is a good idea.

_____ This is a fair idea.

_____ This is a neutral idea.

_____ This is a poor idea.

_____ This is a bad idea.

_____ This is a terrible idea.

Instructions:

1. PLACE A LARGE "A" in the BLANK YOU MOST AGREE WITH.
2. NOW GO BACK AND PLACE AN "X" IN EACH BLANK THAT YOU ALSO AGREE WITH. For instance you might think the establishment of a Black Studies Program in Colleges is an EXCELLENT idea but you might also agree that it is GOOD and FAIR.

Again, please place an "A" by the blank that BEST indicates your feeling about on-campus living. Then place an "X" by the blanks that you also agree with.

ALL STUDENTS SHOULD BE REQUIRED TO LIVE ON CAMPUS
DURING THEIR COLLEGE ATTENDANCE

_____ This is an excellent idea.

_____ This is a good idea.

_____ This is a fair idea.

_____ This is a neutral idea.

_____ This is a poor idea.

_____ This is a bad idea.

_____ This is a terrible idea.

NOW PUT AN "X" ON EACH SCALE NEXT TO THE BLANK THAT BEST INDICATES YOUR FEELINGS:

ALL STUDENTS SHOULD BE REQUIRED TO LIVE ON CAMPUS
DURING THEIR COLLEGE ATTENDANCE

_____ Very Pleasant

_____ Quite Pleasant

_____ Slightly Pleasant

_____ Neutral

_____ Slightly Unpleasant

_____ Quite Unpleasant

_____ Very Unpleasant

ALL STUDENTS SHOULD BE REQUIRED TO LIVE ON CAMPUS
DURING THEIR COLLEGE ATTENDANCE

____ Very Good
____ Quite Good
____ Slightly Good
____ Neutral
____ Slightly Bad
____ Quite Bad
____ Very Bad

ALL STUDENTS SHOULD BE REQUIRED TO LIVE ON CAMPUS
DURING THEIR COLLEGE ATTENDANCE

____ Very Valuable
____ Quite Valuable
____ Slightly Valuable
____ Neutral
____ Slightly Worthless
____ Quite Worthless
____ Very Worthless

ALL STUDENTS SHOULD BE REQUIRED TO LIVE ON CAMPUS
DURING THEIR COLLEGE ATTENDANCE

____ Very Unfair
____ Quite Unfair
____ Slightly Unfair
____ Neutral
____ Slightly Fair
____ Quite Fair
____ Very Fair

Did you feel that your contribution to the persuasion campaign was important?

Important _____ : _____ : _____ : _____ : _____ : _____ : _____ Unimportant

Before you wrote your essay, how did you think the high school students felt toward the issue of compulsory on-campus residency?

- _____ They were favorable toward compulsory on-campus residency.
- _____ They were undecided toward compulsory on-campus residency.
- _____ They were opposed to compulsory on-campus residency.
- _____ I don't know what their attitude was toward compulsory on-campus residency.

How difficult was it for you to write the essay on this issue?

_____ : _____ : _____ : _____ : _____ : _____
 Difficult _____ Neither _____ Easy

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