

THE EFFECTS OF SPEECH STRUCTURE AND ARGUMENT
STRENGTH OF AUDIENCE ATTITUDES AND RETENTION

by

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THE STATEMENT OF THE PROBLEM

The Background of the Problem

The question of the effects of speech structure on audiences is not a new one. Many students of speech believe that knowing the effects of the structure would be of great benefit to public speakers. In the past, rhetoricians set forth their ideas concerning this question. Most of these ideas were based largely on the experiences of the rhetoricians and were at best inconclusive. Cicero, perhaps the greatest of the Roman orators, stated in his work De Oratore, "so in arrangement of the speech the strongest point should come first."¹ This statement, although conclusive concerning the arrangement of arguments, was not supported by fact. Inconclusive statements concerning the arrangement of arguments were offered earlier by the Greek orators and philosophers, Plato and Aristotle. Plato stated; "every speech ought to be put together like a living creature, with a body of its own, so as to be neither without head, nor without feet, but to have both a middle and extremities, described proportionately to each other and to the whole."² Aristotle, a student of Plato, offered no specific solution to the problem, but did name the parts of a speech and described their uses in terms of function and operational utility.

¹ Cicero, De Oratore, Book II, Chapter LXXVIII.

² Plato, Phaedrus, The Works of Plato, I, pp. 342-343.

Most textbooks and speech teachers instruct students to be aware of the nature of the audience and to alter the arrangement of the speech if necessary, to gain some special advantage with the audience. "A speech conforming to the principles of good organization may be ill-adapted to the specific audience for which it is intended. In other words, so-called natural or logical structure may not coincide with the most effective sequence of presentation."³ Karl R. Wallace, in a study of Booker T. Washington and his speeches pointed out differences in the arrangements of Washington's speeches. These differences were caused by the types of audiences to which Washington spoke. His methods enabled him to strike the right notes for a given audience and occasion.⁴

In 1908, Arthur E. Phillips offered his ideas on the order of the materials in the speech.

Two things, logical order and interestingness, must be kept in view by the speaker who is considering the arrangement of materials. Considered alone, a logical development is desirable; each sub-idea should seem to grow out of the preceding one. The need of interestingness, however, sometimes modifies the logical method. The retention of interest may demand a climactic growth.⁵

James Winans also had an idea which he presented concerning the arrangement of materials within the speech. "A speaker will

³ Lester Thonssen and A. Craig Baird, Speech Criticism, p. 401

⁴ Karl R. Wallace, History and Criticism of American Public Address, pp. 425-428.

⁵ Arthur E. Phillips, Effective Speaking, pp. 169-171.

usually have at his command several arguments, all sound and legitimate, but some stronger than others. The order in which these should be placed may be determined by the demands of logic or intelligibility."⁶ Winans also implied that a climax order of presentation is frequently the best presentation especially when the audience is not strongly in opposition.

A combination of the previously mentioned ideas has provided the basis for the opinions held by most rhetoricians, educators and serious students of public speaking. Most of today's opinions are no more based on fact than were those ideas set forth by some of the world's greatest orators over two thousand years ago. Speakers have been on their own when making decisions concerning the structure of their speeches and the effects of those speeches upon audiences. Speakers have had to determine the disposition and arrangement of the materials within their speeches according to their own judgment of the speech, its audience and the environment in which it was delivered. The rule has been that there were no rules to follow. There were a great number of ideas and opinions presented, but nothing concrete was concluded. The form used by one speaker could not be followed by another because he believed in his own form.

This problem has continued through the years. For the past thirty years, educators have seriously concerned themselves with various problems of speech structure. However, this concern has

⁶ James A. Winans, Public Speaking, pp. 270-271.

led to a different kind of study of the speech and its structure. In the past, the ideas evolved from the knowledge and experience of the rhetoricians, but recently the ideas have come from rational studies and observations performed by people trained in scientific methodology. These recent studies have been developed through the statement of an hypothesis and the testing of that hypothesis.

The ideas presented by the rhetoricians of the past as well as the scientific studies completed in recent years have not produced conclusive results concerning the effects of the structure of speeches upon audiences. The effect of the structure upon audience attitudes is still relatively unknown as well as structural effects upon the retention of the materials presented in the message. The current study, a replication of previous studies, is concerned with the solution to the problem of the effect of speech structure.

The Statement of the Hypotheses

Hypothesis I. When an audience is presented an oral message containing three statements of equal length but not equal strength, the climactic form of presentation will effect the greatest cumulative attitude change in the listeners.

Hypothesis II. When an audience is presented an oral message containing three statements of equal length but not equal strength, the retention of the strongest statement will be greater when it is in the final position than when it is in the initial position.

The Rationale

The problem of the effect of the structure of the speech and of the strength of its proofs has been attacked through two major methods of testing. Speakers have wanted to know whether they could change existing attitudes on a subject held by an audience by delivering a persuasive message on that subject. Also, they have wanted to know the effect of the structure of the message on the audience. These questions have led to one method of testing. This method is committed to measuring the existing attitudes and changes in attitudes held by audiences.

The second method was developed in order to measure learning or retention of the material contained in the message. Once again, speakers wanted to know how much an audience learned from a speech and the effect of the structure of the speech on learning.

The present study has combined the use of the two previously mentioned methods and measured attitudes as well as retention. Before an hypothesis concerning attitudes could be developed a review of the literature and the rationale for the hypothesis was necessary.

Harvey Cromwell conducted the first major experiment which applied directly to orally delivered messages. The study was designed to answer many questions, one of which applied directly to this study. The question stated; "When oral arguments are presented in speeches of approximately equal length but unequal strength on the same side of a proposition, which order of presentation, strong-weak or weak-strong has the greater cumulative

effect on the attitude of the audience?"⁷ Although it was found that the speeches changed the attitudes of the listeners, nothing significant was concluded concerning the placement of the strong speeches. That is, there appeared to be no evidence which could support a belief that it would be more helpful to place the strong speech either first or last.

It was noted, however, that when the weak speech was given in the first position a greater, but not significant attitude change resulted than when the weak speech was given in the final position. It is possible then that the weak speech was made even weaker when it followed the strong speech. The greatest cumulative attitude change was effected when the speeches were presented in order of weak-strong. The Cromwell study dealt with two speeches of differing strength whereas the current study pertained only to one speech which contained assertions of differing strengths.

Harold Sponberg conducted an experiment involving the effect of message structure upon attitude change. He presented a persuasive message containing three assertions which had been ranked by judges as being strong, medium, and weak. Two forms of the message were presented, one employing climactic order and the other anti-climactic order. Climactic order is that

⁷ Harvey Cromwell, The Relative Effect on Audience Attitude of the First vs. the Second Argumentative Speech of a Series, Speech Monographs, 17, 1950, p. 106.

which has the arguments placed in the order of weak, middle, and strong. The order of strong, middle, weak is termed anti-climactic order. The results indicated nothing significant, however there was a tendency which indicated that a climactic order was producing greater attitude change.⁸

Gilkinson, Paulson and Sikkink in basically repeating the Sponberg study found a statistically significant result which favored the climax order of presentation. In a replication of their own study, the results favored climax order once again but those results were not significant.⁹

Knower performed an experiment utilizing visually perceived messages on different sides of a proposition. These were printed messages which were read by the subjects. The messages were not of differing persuasive strengths. The results of the study indicated that the stimulus presented first had the greater effect on attitude change.¹⁰ This finding would seem to conflict with the findings of Sponberg and Gilkinson, Paulson and Sikkink. However, the experimental design of this study may have favored the first stimulus. It is believed that the first stimulus created an attitude which had to be changed by the opposing,

⁸ Harold Sponberg, The Relative Effectiveness of Climax and Anti-Climax Order in an Argumentative Speech, Speech Monographs, 13, 1946, pp. 35-44.

⁹ Howard Gilkinson, Stanley Paulson and Donald Sikkink, Controversial Statements in Connected Discourse, Forms of Presentation and the Political Frame of Reference of the Listener, Speech Monographs, 20, 4, 1953, pp. 253-260.

¹⁰ Franklin Knower, Experimental Studies of Changes in Attitude, Journal of Abnormal and Social Psychology, 30, 1936, pp. 522-532.

second stimulus. It might be argued that it is easier to create an attitude than to change an existing one, especially if that attitude has been recently formulated. Under this assumption, the task of the second stimulus was much greater than the task of the first stimulus, given that both stimuli were of equal persuasive strength.

Gulley and Berlo have completed the most recent study involving the effect of structure on attitudes. Although attitudes were significantly changed as a result of the speeches, there were no statistically significant differences observed for the two types of presentations. However, the mean change for the groups of listeners tended to favor climax order.¹¹

According to most of these data it would seem that climax order may be more effective in producing attitude change toward a proposition in an orally delivered message; however, the data are not conclusive on this point. In three of the four studies which utilized a single, orally delivered persuasive message, the results were not significant. The results of Knower's study cannot be applied directly to the current question since the study dealt with visually perceived messages. The variable under investigation in the Cromwell study was slightly different in nature; two messages of differing strength were used rather

¹¹ Halburt Gulley and David Berlo, Effect of Intercellular Speech Structure on Attitude Change and Learning, Speech Monographs, 23, 1956, pp. 288-297.

than several assertions of differing strength within the same message. It appears that additional evidence is necessary before it can be stated that one order is definitely superior to others. The hypothesis concerning attitudes which was formulated for this study seems to be consistent with the available evidence.

The second major question concerning speech structure pertains to the effect of structure upon content retention. Certainly speakers want the listeners to retain as much of the material as is possible. Even though a speaker has several assertions within his discourse, some of the assertions are logically and persuasively superior to others. Naturally, a speaker wants his audience to remember the strong assertions within his message more than the weaker assertions. Thus, people have attempted to measure the retention of assertions. The review of the following literature served as a basis for the rationale of the second hypothesis which concerned the placement of the strongest assertion within an oral message.

Arthur Jersild, in the first major study involving the primacy-recency question, selected seventy statements about a fictitious character. Primacy and recency are terms relating to the position of arguments within the speech. Statements presented early in the speech are termed statements of primacy and those statements presented near the end of the speech are termed recency statements. The statements were arranged in ten different orders and were read to ten different groups of people. These people were then asked to write down as many of the statements

as they could remember. The first three statements read to the groups were considered statements of primacy and the final three statements were considered to be statements of recency. Four of the statements appeared both as primacy and as recency statements before different groups. These statements, when placed in the initial positions had a much greater recall than did those same statements when in final positions.¹²

Ehrensberger later replicated the Jersild study. Like Jersild, Ehrensberger used a list of statements which were read to audiences and they in turn were tested for recall. Unlike Jersild, Ehrensberger used statements which were more meaningful to the audience, more experimenters, a questionnaire and a statistical treatment of the data. These modifications in procedure give the Ehrensberger study more reliability. The use of different speakers alleviated the bias which might have been projected toward the audience by a single speaker. Also, the meaningful material is nearer a public speaking situation and probably created more interest in the audience, since most speakers present material which is compatible with the knowledge of the audience. The results of the Ehrensberger study favored recency.¹³ It is necessary to remember that the Jersild and Ehrensberger studies resulted in opposite conclusions.

¹² Arthur T. Jersild, Primacy, Recency, Frequency and Vividness, Journal of Experimental Psychology, 12, 1926, pp. 58-70.

¹³ Ray Ehrensberger, An Experimental Study of the Relative Effectiveness of Certain Forms of Emphasis in Public Speaking, Speech Monographs, 12, 1945, pp. 94-111.

Sponberg also measured retention in his study which has previously been mentioned in connection with attitudes. The results of the study were significant and favored an anticlimactic order of presentation. That is, the results favored the order of strong, middle and weak in the presentation. The results of the study apply to the total retention of the assertions in an anticlimactic order. The message concerned three assertions of differing strengths. It is possible that the total difference in retention obtained by Sponberg between climactic and anticlimactic order may have been caused by greater retention of average and weak statements in anticlimactic order than when in climactic order. The current study included only a retention measure of the strong assertion and evidence. Although retention of the entire message is desired by speakers, the practical approach should be to have their strongest argument remembered more than their weaker arguments. For this reason, the practical value of Sponberg's methods have been questioned in this rationale by the experimenter.

Gilkinson, Paulson, and Sikkink later repeated the Sponberg study. Their results indicated no significant differences in total retention either by a climactic or an anticlimactic order of presentation.¹⁵

¹⁴ Sponberg, op. cit., pp. 35-44.

¹⁵ Gilkinson, Paulson, and Sikkink, op. cit., pp. 253-260.

The Gulley and Berlo study has been mentioned in connection with attitudes, but the study also attempted to measure over-all learning of the message when presented in different orders. They introduced a new procedure into their experiment. They used climactic and anti-climactic forms of presentation, but there was included a more technical breakdown. The term inter-cellular was used to describe the breakdown of cells within the message. The breakdown was either strong-weak or weak-strong. The term "cells" referred to the different arguments contained in the speech. Intracellular represented a further breakdown concerning the positions of the assertions and evidence within the cells. This positioning was termed either inductive or deductive. An inductive method was used if the evidence preceded the assertion and the deductive method of placement was assertion followed by the evidence. The results of the study were not significant in any of the areas measured concerning learning. In the conclusion of their article, Gulley and Berlo stated; "It might be more fruitful to examine other approaches to the problem of learning in oral communication."¹⁶ They indicated that one approach might be to examine the learning of particular assertions, and another to examine serial positions.¹⁷ The current study has followed that suggested procedure.

¹⁶ Gulley and Berlo, op. cit., p. 296.

¹⁷ Loc. cit.

The literature on the primacy-recency question offered conflicting evidence. In order to construct an hypothesis concerning the question, it was necessary not only to consider the literature, but also the past experiences of the experimenter. The literature offered only two studies which closely resembled the current study. Of these the Gulley-Berlo experiment was the most appropriate, however, the results offered nothing significant. The Ehrensberger study, since it was not a true public speaking situation and because it had a great number of statements, could not be applied directly to the current study. With the exception of differing strengths of the statements, the primacy-recency question which was studied by Ehrensberger is similar to the present study. The results indicated recency to effect greater retention. Thus, one study favored recency, the other favored neither primacy nor recency.

Many people feel that the initial attention of an audience is intensive, but that the attention dwindles as the speech progresses unless the speaker can keep the audience interested. Others believe that attention will remain intensive throughout the speech if the speaker employs a climactic presentation. Another point which favors recency is the idea that the materials presented last in a speech is remembered better and is clearer in the minds of listeners than that material which is presented first in the speech. The main reason for this statement is that no material follows the final statement, therefore it should be clear in mind. Many of the experimenters told the audiences

that they would be given a retention test following the speech. This writer believes that statements of this sort gave primacy an unfair advantage over recency as well as not representing the everyday speech situation. Directions of this type made the audience sit up and listen. They tried to remember everything they heard. Since the first few items spoken were new, fresh, and uncluttered by previous statements they were no doubt remembered, while the latter statements were not so easily remembered because the audience was already "crammed" full of material. The preceding material provided the rationale for the second hypothesis of this study.

There have been many studies which have dealt with the effects of speeches and also with serial position. Although these studies do not apply directly to the current study, they indicate the need for further research. These studies, although some were not specifically related to oral communication, were generally in the communications field.

Franklin Knower, in a study which did pertain to oral communication, measured the abilities of speeches to change audience attitudes. The experiment did not involve assertion strength not did it include a serial measurement. The results did indicate that an oral argument would change the attitudes of listeners in the direction advocated.¹⁸

¹⁸ Franklin Knower, A Study of the Effect of Oral Argument on Changes of Attitude, Journal of Social Psychology, 6, 1935, pp. 315-346.

Robinson and Brown conducted a study which involved the memorization of items on a list in regard to serial position. The results indicated that primacy extended over the several items at the beginning of the list, while recency was much more limited in scope and covered only a few items at the end of the list.¹⁹

Leonard Doob asked two questions which involved serial position and motivation. They were; (1) "when no motivation is offered, what is the effect of serial position upon recall of the material presented, and (2) does an intense or favorable attitude promote recall"?²⁰ A group which read prose was intentionally motivated and another group which viewed a news-reel was not intentionally motivated. The results indicated that the recall of prose items was superior to that of the news-reel items and that the quantity of recalled material appeared to have been associated with attitude intensity. The first items were recalled better by the motivated subjects while a recency effect was indicated by the non-motivated subjects.

The background and the rationale has indicated that there is a problem which has not been solved even though it has been studied by capable individuals. A review of previous literature and an objective analysis of the results stated in the literature

¹⁹ Robinson and Brown, Effect of Serial Position Upon Memorization, American Journal of Psychology, 37, 1926, p. 538.

²⁰ Leonard Doob, Effects of Initial Serial Position and Attitude Upon Recall Under Conditions of Low Motivation, Journal of Abnormal and Social Psychology, 48, 1953 pp. 199-205.

which pertained to the effect of speech structure upon audience attitudes and to the retention of the material in the message has enabled the experimenter to construct hypotheses concerning the questions involved in the problem.

EXPERIMENTAL PROCEDURE

The purpose of this chapter is to explicate the procedures which were followed in this experiment. Of primary interest is the design of the experiment as well as the materials and methods employed to carry out that design.

Subjects

The subjects used in this study were undergraduate students enrolled in Oral Communications I at Kansas State University in the fall of 1961. The speech students were chosen because there was a great number of them and because they were generally freshmen and sophomores between the ages of 17 and 20. The total number of subjects used in the study was 274. The subjects were divided into experimental and control groups. Experimental group A consisted of 96 subjects and experimental group B consisted of 87 subjects. There were 91 subjects in the control group. The subjects were tested during regular class hours and each class contained from 15 to 25 people.

Experimental Design

The study of speech structure and its effects on audiences largely dictated the design of the experiment. In order to measure attitude changes in an audience caused by a speech it was necessary to know the existing attitudes of the audience toward the topic of the experimental message which would be presented later (See Appendix A). Also, a sample form of the retention measure was

necessary to determine the abilities of the group members to perform the tasks required in the test as well as to provide a "warm up" for the subjects and to acquaint them with the procedure. The test which was designed to measure the existing (pre) attitudes and to measure the retention performance abilities was called the "pre-test" (See Appendix B). A control group was also formed and took part in the pre-test so that a comparison could be made later between the experimental groups and a controlled group.

A "post-test" was also designed (See Appendix C). It was created to measure the attitudes of the experimental groups after they had heard the experimental message and to measure the attitudes of the control group which was not exposed to the message. These attitudes will be referred to as post-attitudes from this point on. Also, included within the post-test was another retention measure covering the retention of the strongest argument in the experimental message. This retention measure was administered to both experimental and control groups. Thus, each test was composed of two major elements. The pre-test included pre-attitude and retention form ability measures. The post-test was composed of a post-attitude measure and a post-retention measure of the strong argument in the experimental message.

The other major problem of design concerned the groups of subjects. The groups were divided into three categories, two of which have been referred to previously. The experimental

groups were split into two sections. One section was labeled Group A, the other Group B. Group A was to listen to the speech in order of strong, middle, weak and group B was to hear the speech in weak, middle, strong order. This was done so that differences in attitude change and retention could be attributed to the form of the speech to which the experimental groups listened. The control group, labeled Group C, was formed to measure retention and attitude change differences between those who heard the speech and those who did not hear the speech. Before differences could be attributed to the structure of the speeches, it had to be determined that the speech changed attitudes and that the audience retained the information.

Materials and Methodology

The experimental message which was listened to by the two experimental groups was constructed on the topic "Labor Union Strikes". The choice of topic was made difficult because it had to be a topic about which the audience held attitudes which were not completely favorable. The message was constructed to change the attitudes of the audience to a more favorable position with respect to the topic. The message favored the continuation of the right to strike by labor unions and contained three arguments which supported the continuation of the right. The arguments were constructed to be of differing strengths with one strong, another average and the third, a weak argument. The speech included an introduction, a conclusion and transitions

between the assertions. The speech was taped once and then another tape was made by editing the first speech through a rearrangement of the strong and weak arguments. The second message thus was identical to the first except for order. The original speech was labeled speech A, and contained the arguments in order of strong, middle, weak. The edited edition was termed speech B, and was in the order of weak, middle, strong.

The forms used for the tests were similar. The pre-test used the same attitude measurement as did the post-test with the addition that the pre-test included other topics which were used as masking so that the subjects would not be aware of the specific topic under investigation. The retention measure consisted of a passage which was unfamiliar to the subjects. The form used in the post-attitude test was shorter and contained only the topic under investigation. The retention measure was a passage taken directly from the strong argument of the message.

Two primary methods were used to transfer intrinsic attitudes and knowledge into meaningful measures which could be statistically treated. These methods were the use of the evaluative scales of the semantic differential developed by Osgood¹ to index attitudes, and the cloze procedure, developed by Taylor² to index retention.

¹ Charles Osgood, G. Suci and Percy Tannenbaum, The Measurement of Meaning.

² William L. Taylor, Ph. D., Thesis, University of Illinois, 1954

Osgood originally developed the semantic differential as a quick method of measuring meaning. After the measure had been developed it was learned that the form could also provide reliable attitude measurements. There were several different types of scales developed. Some scales measured potency, others dealt with activity and some with evaluative measures. The evaluative scales were used to measure the attitudes of the subjects in this study.

The method used to measure retention in this study was "cloze procedure." This procedure was developed through the belief that people will convert the missing parts of messages and assign familiar words to those missing parts. The application of cloze procedure requires the interception of a message between "transmitter" (writer or speaker) and "receiver" (reader or listener). Quantitative scores are arrived at simply by counting the total number of instances of agreement between transmitters and receivers. The "cloze score" for a given passage is taken to be a measure of the degree of correspondence between the source "encoding" the message, and the language habits used by the receiver while "decoding" the message and attempting to make it whole again. The process involved mutilating the strong argument of the message by deleting every fifth word of a 250 word passage taken from the strong argument. The subjects were then instructed to fill in the blanks to the best of their abilities. The procedure required the subjects to understand the content of the mutilated message and restore missing

parts that would express the whole form of the content.

Pilot study. Three months previous to the experiment a pilot study was performed. The study was a very short replication of the current study. The results of the pilot study were inconclusive. Several problems arose during the testing procedures which harmed the precision that must normally accompany experiments of that type. The size of the population was relatively small. The directions given to the subjects were found to be unclear, the tests were given in a hurried manner, and there appeared to be an atmosphere of noncooperation among some of the subjects. The pilot study did prove to be of valuable assistance to the experimenter in gaining knowledge of testing procedures.

Paired comparison. At the same time the pre-test was undertaken the experimenter attempted a paired comparison experiment designed to compute a measure of the strengths and weaknesses of the arguments in the message. This test procedure was developed because the experimenter believed that there was a need for some type of audience commitment concerning the strengths of assertions within the message to be presented. The subjects were given printed copies of two of the arguments in the message. The subjects used in this test were taken from other classes and were not involved in the major experiment. They were asked to read the arguments and make a choice as to which argument was the stronger of the two. Since there were three arguments in the message, different subjects received

different groups of arguments. In all, there were six different forms of the arguments and they were distributed randomly to the subjects. The results indicated that no consistent measure of strength or weakness could be attributed to the arguments. Simply, the subjects perceived the arguments as being equal in strength to each other. It is possible that the testing procedure was too insensitive while requiring complete cooperation from the subjects. One interesting item appeared in the results of the test. The argument presented to the subjects on the second page was more often chosen to be the strong argument than the argument presented on page one. Many times the weak argument was marked as being the stronger argument, even when it was placed with the strong argument. In most cases the weak argument was chosen to be strong when it followed the strong argument and was placed on page two. The same results were found when the weak argument followed the middle argument. It was also noticed that middle and strong arguments were consistently chosen as strong when they accompanied the weak argument and were placed on the second page. These results, although not significant, suggested a recency effect among the subjects when reading printed matter. However no satisfactory method of determining audience views of the relative strength of the arguments was involved. It was necessary then to employ the experimenter's criteria of strong-weak in the present study.

The criteria employed was that of logical, positive proof and rhetorical strength. It is believed that a logical argument,

clearly understandable to the listener, is the best argument and that it remains longer in the mind of the listener. Emotional proof is also usable, but it is often illogical and does not remain in the mind of the listener. For these reasons, the logical method of proof was chosen for the experimental message.

The "strong" argument of the message was conducted so that it would be easily understood by the audience, and that it moved toward a clearly positive conclusion. The explicit conclusion stated that "without the strike, the ultimate power of the union would be gone." The "middle" and "weak" arguments were constructed to be less clear and positive than the "strong" argument. The "middle" argument supported the idea that the strike placed the union and management on equal levels and therefore became an equalization factor. Although the argument was logical, the positive movement toward a solution or conclusion was questionable. Thus, the "middle" argument was thought to be rhetorically weaker than the "strong" argument. The "weak" argument supported the idea that the strike brought about a quick solution to the problem by exerting pressure on both sides. It was also pointed out that these quick solutions are not always good solutions and that both sides are not always happy with the solution. Although the "weak" argument was truthful, it was far less positive than the "strong" argument. The conclusion of the "weak" argument was in fact partially negative because of the inconclusiveness of the quick solutions.

Data Collection

The collection of the data was similar in both tests. For the pre-test the instructors of the classes were used as experimenters. The tests were administered during regular class meetings. The instructors handed out the tests to the subjects and then read the directions for the pre-attitude test. After the scales had been completed by the students, the instructors read over the directions for the cloze ability test. The subjects were then allowed ten minutes to complete the form. At the end of the ten minute period the instructors collected the test forms and resumed regular classroom procedures. In the pre-test, the control groups received the same tests and directions as did the experimental groups. Both experimental and control subjects were asked to fill in information concerning their name, age, sex, year in school and major field of study.

Three weeks after the pre-test had been administered the post-test was begun. It also was administered during regular class meetings. The instructors were used as experimenters in the control group classes and again simply read the instructions to the subjects. The same tests and directions were given to the experimental group classes. Before the test was given, this writer played the appropriate form of the speech for the members of the class. Group A subjects heard speech form A and group B subjects heard speech form B. The test was then administered to the subjects and collected upon completion of the form. Again, ten minutes were allowed for the completion of the cloze passage.

ANALYSIS OF DATA

Description of the Data

The data collecting materials of the study were of two types: attitude measure and; retention measure. Each of the measures was included in both the pre-test and the post-test. The pre-test included a 250 word passage in which every fifth word was deleted. The subjects, although completely unfamiliar with the passage were asked to fill in the missing words to the best of their ability. The number of correct answers constituted the cloze ability scores of the subjects. The same type of measure was taken as the retention score for the subjects on the post-test. The passage used for the post-test was taken directly from the strong argument of the experimental message with every fifth word deleted. Again, the subjects were directed to fill in as many of the blanks with the correct words as was possible. The number of correct answers constituted the retention scores of the subjects. The attitude measure of the pre-test included four topics and a series of six scales for each topic. Three of the topics and three of the scales under each topic were simply masking measures and served no purpose while the remaining topic and its three evaluative scales constituted the attitude scores of the subjects. The scales were composed of seven blanks with the left side of the scale representing favorable attitudes and the right side representing unfavorable attitudes. The middle blank constituted a neutral attitude. The subjects were instructed

to check the blank on each scale which they felt most closely resembled their feelings toward the topic. The attitude score was determined by assigning the numbers 1-7 to the blanks: 1 to the most extreme blank on the favorable side and 7 to the most extreme blank on the unfavorable side. It was then possible to sum the numbers of the blanks upon which the checks were placed. The post-test attitude score was computed in the same manner. Table I presents the total number of subjects in pre and post groups.

Table I. Number of subjects in the experiment.

Test	Groups			Total
	A	B	C	
Pre-test	101	93	100	294
Post-test	96	87	91	274

Pre-Test Analysis

Groups. It was necessary to first determine that the three groups did not differ significantly on the variables of attitude or cloze ability. Statistical comparisons were made between the groups to determine these differences. Experimental group A was compared against experimental group B in relation to both pre-attitude and cloze ability scores. After this was completed, the experimental group scores were combined and then compared with the control group scores for both pre-attitudes and cloze ability (See Table II).

Table II. Pre-test analysis of groups.

Group	N	Mean	d.f.	t*
Attitudes				
A	101	13.39	193	.03
B	93	13.63		
A&B	194	13.40	292	.26
C	100	13.58		
Cloze Ability				
A	101	20.35	192	.68
B	93	20.88		
A&B	194	20.60	100	1.10
C	100	19.92		

* $t_{.95}$ (d.f. = 192) = 1.98

Sex. The experimenter requested and received further information regarding the subjects. This information consisted of age, sex, year in school and major field of study. Most of the subjects were of approximately the same age thus making any age breakdown of attitudes and cloze abilities unnecessary. The same thing was true of the year in school breakdown. The subjects were almost entirely freshman and sophomores. The major fields of study were so widely varied that no comparable groups could be formed. The sex breakdown did allow the experimenter to measure the pre-attitudes and cloze abilities of the subjects according to sex (See Table III). This measure was obtained only for the experimental groups.

Table III. Pre-test analysis of experimental groups: Sex.

Group	N	Mean	d.f.	t*
Attitudes				
A&B male	131	13.21		
A&B female	63	13.95	192	.92
Cloze Ability				
A&B male	131	20.26		
A&B female	63	20.95	192	.88
*t _{.95} (d.f. = 192) =	1.98			

The results gained from these comparisons indicated that the groups were approximately equal in attitudes and cloze abilities.

Post-Test Analysis

Message. Although the hypotheses of the study were concerned with the structural effect of the message upon audience attitudes and retention, it was necessary first to measure the effect of the message, regardless of structure, upon the subjects. Before it could be determined that the structure had effected attitude change and retention differences, it had to be determined that the message had caused an attitude change in the experimental groups and that the subjects had learned from the message presented to those groups. A comparison between experimental and control groups was made which applied directly to the effects of the message upon attitudes and retention. The results indicated that the experimental groups had changed attitudes to a more favorable position and that they had also retained some of the information presented in the experimental message. The control group members remained somewhat constant in their attitudes

toward the topic and their retention scores were significantly smaller than were the scores of the experimental groups. A t statistic was once again used to measure differences between experimental and control groups (See Table IV).

Table IV. Effect of message on attitude change and retention.

Group	N	Mean	d.f.	t*
Attitudes				
A&B	183	4.03	272	7.72*
Cc	91	-.46		
Retention				
A&B	183	26.80	272	5.30*
C	91	22.21		
* $t_{.99}$ (d.f. = 272) = 2.59				

The results show that the experimental groups significantly changed their attitudes and that they retained the information presented in the message when compared with the control group.

Hypotheses. After it had been determined that exposure to the experimental message resulted in significant attitude change and greater retention when compared to the control group, the next step was to test the hypotheses. In order to test the hypotheses, a comparison of the attitude changes and retention scores between experimental groups A and B was undertaken. This measure directly compared the structural effect of the strong argument within the experimental message upon the audiences. Again, the t statistic was employed to make the comparisons. The results indicated that the structural effects of the message did not cause significant changes in attitude or differences in

retention (See Table V). Because the differences were not beyond chance levels, both of the hypotheses had to be rejected. No differences in attitude change caused by the message could be attributed to structural differences within the message. No differences in the retention of the strong argument of the experimental message could be attributed to the structural differences within the message.

Table V. Structural effect of message on attitude change and retention.

Group	N	Mean	d.f.	t*
H ₁ ¹ Attitudes				
A	96	3.73	181	.89
B	87	4.37		
H ₂ ² Retention				
A	96	27.28	181	1.15
B	87	26.16		
*t _{.95} (d.f. = 181) = 1.98				

¹Hypothesis I
²Hypothesis II

Sex. The measurement of sex differences was continued in the post-test as in the pre-test. One measure was taken of the effect of the message on the experimental audiences concerning attitude change and retention. This measure compared all experimental male scores with the female scores of the same groups (See Table VI). The resulting t statistic indicated at the 95 per cent level of confidence, that the female subjects in the experimental groups changed their attitudes more toward the point of view advocated in the experimental message. The comparison

of scores on the retention test did not reveal significant differences. The attitudes of the female experimental subjects were changed by the message more than the male subjects. The retention of the message by the two groups was essentially the same.

Table VI. Effect of message on attitude change and retention: Sex

Group	N	Mean	d.f.	t*
Attitudes				
A&B male	123	3.50	181	2.00*
A&B female	60	5.11		
Retention				
A&B male	123	26.63	181	.51
A&B female	60	27.17		
*t .95 (d.f. = 181) = 1.98				

Because it was found that the attitudes of the female subjects were changed by the experimental message more than the attitudes of the male subjects, a further breakdown was made. This breakdown consisted of a measure which compared the female subjects attitude change scores in group A against those scores made by the female subjects in group B. The same comparison was made between the male subjects in groups A and B. Simply, these comparisons were made to check the effects of the structure of the message upon the attitudes of the male and female subjects. The results of these tests (See Table VII) were not significant. That is, there were no differences in attitude change within the different sexes which could be attributed to the structure of the experimental message.

Table VII. Structural effect of message on attitudes - Sex

Group	N	Mean	d.f.	t*
A females	30	5.57	58	.69
B females	30	6.33		
A males	66	4.50	121	.40
B males	57	4.77		

*t .95 (d.f. = 58) = 2.00
 *t .95 (d.f. = 121) = 1.99

DISCUSSION

Findings

This study was undertaken because of the lack of conclusive facts concerning the effects of speech structure on audiences. The study attempted to measure the effects of different speech structures upon the retention of the strong argument within the speech as well as effects upon the attitudes of the subjects. Variables were considered and controlled as much as possible by keeping the testing situation natural and simple for the subjects. The nature of the problem and the available testing measures determined the amount of data necessary for an accurate statistical treatment. Although the tests were relatively simple for the subjects, the computations necessarily made by the experimenter, as well as the results, were many. To summarize the data with reference to the results of the experiment, it has been found that;

1. The pre-test provided the necessary data needed to progress to the post-test by indicating all groups equal in attitude toward the topic and in cloze abilities;
2. The post-test results indicated that the experimental group subjects changed their attitudes significantly toward the side advocated in the experimental message;
3. The experimental group subjects significantly retained the material in the strong argument when compared with the control group;

4. Hypothesis I, which predicted an anticlimactic form of presentation to effect greater attitude changes, had to be rejected;
5. Hypothesis II, which predicted a recency effect to facilitate greater retention by the subjects had to be rejected;
6. The female experimental subjects changed attitudes toward the topic significantly more than did the male subjects;
7. The structure of the message had no effect upon attitude change and retention differences for either male or female subjects.

Research Needed

The knowledge gained by the experimenter in performing this study has indicated the need for future study pertaining to the problem. The major requirement is the need to control certain variables.

The causes of the results of this study were no doubt many in number. Perhaps a major factor in the outcome of the study was the organization of the assertions within the experimental message. Although the assertions were constructed by the experimenter to be of varying strengths, no audience commitment was gained which supported those efforts. It is probable that the subjects did not perceive the assertions as being strong, average and weak in persuasive strength. If this was true, the retention measure was weakened. The test was not

measuring the retention of the strong argument within the message, but only the retention of the argument placed either first or last in the presentation. This could have been harmful to the study because the necessity of having varying strengths of arguments was important to the design of the experiment. A great need lies in the area of audience commitment toward the strengths and weaknesses of arguments. An experimenter should have a reliable method through which he can construct arguments of varying strengths. This could possibly be accomplished through the development of a simple testing device used to gain commitment of audiences toward argument strengths and weaknesses. The ideal approach might be to develop the same standards of argument analysis among audiences, but this is not practicable.

Another need with reference to attitudes, is study pertaining to the length of persuasive speeches. The speech used in this study was of approximately six and one half minutes in length. Very little is known concerning the effects of the length of speeches. It is possible that the length of the speech could be a determining factor in the amount of attitude change effected in the audience through message structure. Would two speeches on the same topic, but of differing lengths, cause different amounts of attitude change? Would the amount of change be proportional to the lengths of the speeches? Would longer length cause a greater or a lesser amount of attitude change? Many questions of this type could be answered

through further research into the effects of speech length on attitudes. This study measured the retention of the strong argument through two different presentations. The results showed that the structure of the message had no effect on the retention of the strong argument by the audience. Further research in this area might prove worthwhile. It is possible that the cumulative retention of the material in the message was effected by the structure of the message. That is, the group which heard the strong, middle, weak presentation may have retained more of the material than did the group which listened to the weak, middle, strong presentation. It appears feasible to include tests to measure these effects with the tests which would measure the effects of speech length on audience attitudes.

Summary

It appears from this and other studies that the lack of effects of speech structure on audiences can be attributed to two things. First, the arrangement of arguments within the speech seems to have little or no effect on audiences, and secondly there is a need for further research so that the variables operating can be known and controlled by experimenters in the future. It is currently known that a short persuasive speech can change audience attitudes toward the side advocated, but the effects of the structure of the speech remain unknown.

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APPENDIX

The following is a list of the names of the persons who have been named in the above report as having been connected with the activities of the Communist Party in the United States during the period from 1945 to 1950.

APPENDIX A

Experimental Message

Introduction. There is a word which has become synonymous with labor unions, that word is strike. Many Americans believe that unions are organizations of workers who are together for the purpose of striking against management. These people feel that the strike is a terrible tool which is used constantly by workers to pressure management into giving them what they want. Furthermore, these people feel that this right to strike should be removed from labor's list of rights. As college students, you should be informed about the strike and what it means to millions of workers. I believe that an understanding of labor's right to strike will lead you to demand that this right be continued. Today, I want to discuss three of the important factors which must be considered in developing an understanding of the problem.

Transition. The first of these factors concerns this idea.

Strong argument. The strike is labor's ultimate power, a power which unions use only when there is no other alternative. That does not mean however, that they have forgotten how to use it.

In order to operate successfully, an organization must have certain legitimate goals. Labor Unions certainly have these goals, with their struggle for better wages, hours, and working conditions. But, there must be means of achieving these goals, and of these, the ultimate means is the strike. If the fear of a strike cannot bring about equal representation at the bargaining

table between union and management, the only alternative is the strike. This step keeps secure the rights of American workers and is their ultimate power.

The power of the strike is not the power of money. It is the right of free men and women in a free society to withhold their labor in the interests of justice. The withholding of their labor creates the power which exerts pressure on management thereby bringing about a situation in which there can be negotiations. The unions term this justice, which is defined as "the use of authority and power to uphold what is right, just, or lawful". This power has enabled union members throughout the United States to raise their social and economic levels of living higher than those of any other country in the world today. At the same time, management has been able to enjoy more production and greater profits than ever before. The unions and the strikes have caused management to be more careful with the money at its disposal, and this has led to a more efficient use of the dollar. Thus, it can be said that this strike power has been put to good use in our country.

Transition. The second factor concerns man and his right to a voice in the disposition of his labor.

Middle argument. The strike many times becomes a factor of equalization. There is misconception in the minds of Americans that the company always loses and the union member always wins as a result of a strike.

On November 21, 1945, after weeks of negotiations 200,000

Automobile Workers at General Motors began a strike that was to last four months. The government appointed a fact finding board to investigate the dispute and after due consideration of the problems involved, the board recommended a settlement of 19½ cents an hour. The union accepted. The company refused. This example illustrates the fact that a company can use the strike to put pressure on the workers. It also shows the equality of the strike situation. Each side is under economic stress which motivates it to work for a quick, satisfactory agreement. The union members cannot hold out forever, nor can the company.

Many times the union member will lose a great deal of money because of a strike. But workers throughout the country take the risk of this loss of money for the right to bargain on an equal status just as the American people pay large sums of money each year in order to build defenses so that they may remain free people.

The United States Steel Workers provide further proof of this assertion. This group of men has lost more money because of strikes in the last ten years, than they can hope to gain back in the next ten years. But they will probably continue to strike as much as they feel is necessary, in order to retain the equalization factors between union and management which the strike gives to them.

Transition. The third factor to be discussed concerns this idea.

Weak Argument. The strike forces both labor and management

to settle differences as quickly as possible. Whenever a union goes on strike there is a strong reason causing the action. Many times that reason arises because the management won't sit down and discuss the problem reasonably with the union during normal contract renewal periods or after the workers have recently decided that they want union representation in the plant. When the management becomes stubborn in negotiations or refuses to negotiate entirely, the union will strike.

If the union has enough members in the plant and, assuring the picket lines are respected by non-union workers within the plant, the management will quickly begin to feel the pressures exerted by the union. That is, the plant will be at a standstill. Since the management wants production to again get underway, they will have to negotiate with the union representatives. Each side will draw up a list containing the things that they want and also those items which they will give up. Since each side is under financial pressures the next step must be to sit down and negotiate. Many times negotiations of this type will fail, and a mediator will have to be called on to act as a chairman to listen to the arguments presented by each side. The mediator then, after consideration, may offer some solution to the question. It can now be seen that even negotiations brought about by the strike don't always bring a quick solution to the problem but at this time unions feel that this is the best method which they have.

Conclusion. It is hoped that the preceding remarks will help each of you to understand this right to strike. Furthermore, I hope that each of you will remain aware of these factors and include them in any consideration of the subject which you might undertake in the future. An informed public in matters such as these, is essential if our country is to continue to lead the world in areas where our organized labor is a major factor.

APPENDIX B

The purpose of this study is to measure the awareness of people concerning various subjects by having them judge them against a series of descriptive scales.

On each of the following pages you will find two underlined topics and below each topic a series of scales. You are to rate the topics on each of these scales in order. Please make your judgments on the basis of how you feel about the topics.

Example: Suppose the topic were:

United States Military Defenses

If the scale below were:

Adequate ___: ___: ___: ___: ___: ___: ___ Inadequate

And, if you felt that the subject of the topic were adequate, you would check:

Adequate X: ___: ___: ___: ___: ___: ___ Inadequate

If you felt that the scale didn't apply to the topic at the top of the page at all, you would check:

Adequate ___: ___: ___: X: ___: ___: ___ Inadequate

And if you felt negative toward the topic, you would check:

Adequate ___: ___: ___: ___: ___: ___: X Inadequate

It is your first reaction to the topic which is usually the best reaction, so work rapidly. Before you turn each page, check to see that you haven't missed any of the scales and that you have checked each scale only once.

(Please print)

Name _____ Class Days _____ Hour _____

Age _____ Sex: M _____ F _____ Major _____ Year in School _____

Federal Aid to Education

Fast ___: ___: ___: ___: ___: ___: ___ Slow
 Good ___: ___: ___: ___: ___: ___: ___ Bad
 Correct ___: ___: ___: ___: ___: ___: ___ Incorrect
 Fair ___: ___: ___: ___: ___: ___: ___ Unfair
 Active ___: ___: ___: ___: ___: ___: ___ Passive
 Like ___: ___: ___: ___: ___: ___: ___ Dislike

Labor Union Strikes

Fast ___: ___: ___: ___: ___: ___: ___ Slow
 Good ___: ___: ___: ___: ___: ___: ___ Bad
 Correct ___: ___: ___: ___: ___: ___: ___ Incorrect
 Fair ___: ___: ___: ___: ___: ___: ___ Unfair
 Active ___: ___: ___: ___: ___: ___: ___ Passive
 Like ___: ___: ___: ___: ___: ___: ___ Dislike

The Electoral College

Fast ___ : ___ : ___ : ___ : ___ : ___ : ___ Slow
 Good ___ : ___ : ___ : ___ : ___ : ___ : ___ Bad
 Correct ___ : ___ : ___ : ___ : ___ : ___ : ___ Incorrect
 Fair ___ : ___ : ___ : ___ : ___ : ___ : ___ Unfair
 Active ___ : ___ : ___ : ___ : ___ : ___ : ___ Passive
 Like ___ : ___ : ___ : ___ : ___ : ___ : ___ Dislike

Socialized Medicine

Fast ___ : ___ : ___ : ___ : ___ : ___ : ___ Slow
 Good ___ : ___ : ___ : ___ : ___ : ___ : ___ Bad
 Correct ___ : ___ : ___ : ___ : ___ : ___ : ___ Incorrect
 Fair ___ : ___ : ___ : ___ : ___ : ___ : ___ Unfair
 Active ___ : ___ : ___ : ___ : ___ : ___ : ___ Passive
 Like ___ : ___ : ___ : ___ : ___ : ___ : ___ Dislike

Below you will notice a passage in which every fifth word is deleted and replaced with a blank. Please read through the passage first. FOR EXAMPLE: The little black dog (blank) down the street and (blank) twice at the passing (blank). Then, begin again and write in the word that you think best fits in the blank. The spaces are all the same size but the missing word will, of course vary in length. Complete as many of the blanks as you can in the time allotted.

Television must be considered _____ because it reaches people _____ the theater, news, and _____ events could never hope _____ gain as an audience.

_____ American people, because of _____, now have news coverage _____ is greater than was _____ of just fifteen years _____. We can see and _____ the top news items _____ national and international interest _____ they happen or very _____ after they take place, _____ as in the case _____ unexpected events. The T. V. _____ waste no time in _____ important news bulletins to _____ people of the country.

_____ the coverage given the _____ presidential election by the _____ as well as the _____ time allotted state and _____ political candidates. The two _____ political parties were given _____ time for convention reports _____ well as daily reports _____ the campaign speeches. The _____-Kennedy Debates gained the _____ audience ever assembled to _____ political speeches. It was _____ honest, non-sponsored view _____ the two candidates debating _____ issues of the campaign _____ and unrehearsed. Other top _____ coverage was given to _____ successful U.S. space shots, _____ current Eichmann trial and _____ top news items.

The _____ of Kansans are typically _____ in their enthusiasm for _____ events. The locality of _____ makes it impossible for _____ Kansans to attend the _____ sporting events of the _____. T. V. made it possible _____ Kansans to relax in _____ comfortable family situation on _____ Year's Day and view _____ the top football bowl _____.

APPENDIX C

On the following page you will find an underlined topic and below the topic a series of six scales. You are to rate the topics on each of these scales in order. Please make your judgments on the basis of how you feel about the topic.

Exemple: Suppose the topic were:

United States Military Defenses

In the scale below were:

Adequate ___: ___: ___: ___: ___: ___ Inadequate

And, if you felt that our military defenses were adequate, you would check:

Adequate X: ___: ___: ___: ___: ___ Inadequate

If you felt that the scale didn't apply to the topic at the top of the page at all, you would check:

Adequate ___: ___: ___: X: ___: ___ Inadequate

And if you felt negative toward the topic, you would check:

Adequate ___: ___: ___: ___: ___: X Inadequate

It is your first reaction to the topic which is usually the best reaction, so work rapidly. Check to see that you haven't missed any of the scales and that you have checked each scale only once.

(Please print)

Name _____ Class Days _____ Hour _____

Age _____ Sex: M _____ F _____ Major _____ Year in School _____

Labor Union Strikes

Fast ___: ___: ___: ___: ___: ___: ___: ___ Slow
Good ___: ___: ___: ___: ___: ___: ___: ___ Bad
Correct ___: ___: ___: ___: ___: ___: ___: ___ Incorrect
Fair ___: ___: ___: ___: ___: ___: ___: ___ Unfair
Active ___: ___: ___: ___: ___: ___: ___: ___ Passive
Like ___: ___: ___: ___: ___: ___: ___: ___ Dislike

Below you will notice a passage in which every fifth word is deleted and replaced with a blank. Please read through the passage first. FOR EXAMPLE: Fourscore and seven years (blank), our forefathers brought forward (blank) this continent a new (blank). Then, begin again and write in the word that you think best fits in the blank. The spaces are all the same size; but the missing word will, of course, vary in length. Complete as many of the blanks as you can in the time allotted.

The strike is labor's _____ power. A power which _____ use only when there _____ no other alternative. That _____ not mean however, that _____ have forgotten how to _____ it.

In order to _____ successfully an organization must _____ certain legitimate goals. Labor _____ certainly have the goals, _____ their struggle for better _____, hours, and working conditions. _____, there must be means _____ achieving these goals and _____ these, the ultimate means _____ the strike. If the _____ of a strike cannot _____ about equal representation at _____ bargaining table between union _____ management, the only alternative _____ the strike. This step _____ secure the rights of _____ workers and is their _____ power.

The power of _____ strike is not the _____ of money. It is _____ right of free men _____ women in a free _____ to withhold their labor _____ the interests of justice. _____ withholding of their labor _____ the power which exerts _____ on management thereby bringing _____ a situation in which _____ can be negotiations. The _____ term this justice, which _____ defined as "the use _____ authority and power to _____ what is right, just, _____ lawful". This power has _____ union members throughout the _____ States to raise their _____ and economic levels of _____ higher than those of _____ other country in the _____ today. At the same _____, management has been able _____ enjoy more production and _____ profits than ever before. _____ unions and the strikes _____ caused management to be _____ careful with the money _____ its disposal, and this _____ led to a more _____ use of the dollar.

THE EFFECTS OF SPEECH STRUCTURE AND ARGUMENT STRENGTH ON
AUDIENCE ATTITUDES AND RETENTION

by

GERALD LEE CULTON

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The problem under investigation in this study is concerned with the effect of speech structure upon audiences. This problem of structural effects has been attacked in two ways. It is known that a short persuasive speech can change audience attitudes toward the point advocated, but the effects of different structures upon audience attitudes are conflicting. Therefore, the structural effects upon attitudes were tested in this study. The second item tested concerned the effects of speech structure upon audience retention of the strong argument within the message. Most speakers believe that certain arguments within their speeches are more important than other arguments. The retention test was made to observe structural differences in the audience retention of these important arguments. A review of the literature and a rational consideration of that literature allowed the experimenter to hypothesize that placing the strong argument last in a list of three arguments would effect greatest attitude change and retention of the strong argument.

Experimental subjects were placed in three groups consisting of a control group and two experimental groups. Two tests, pre and post, were administered. The pre-test was given to all groups before they listened to the speech. The post-test was given to the two experimental groups immediately after they listened to the speech, and to the control group without hearing the speech. The tests included evaluative scales of the semantic differential to index attitude change, and a cloze procedure test to index retention. The t statistic was employed to measure differences between groups.

The results of the experiment indicated again that a short persuasive speech can change audience attitudes, and that members of audiences will retain some of the information presented. The structural effects of the speeches upon audiences were not significant. No differences in attitude change or retention of the strong argument by the groups was detected which could be attributed to structural differences. It was observed that the attitudes of female subjects were changed significantly more than the male attitudes, but this difference was not due to the structure of the message. Thus, both of the hypotheses of the experiment had to be rejected.